



WELLNESS JOURNAL



Welcome to the new L3 Health and Wellness Journal

When we first introduced the Wellness Journal in 2010, we had no idea how well it would be received. Many of you have contacted us for additional copies to give to friends and family members. We are gratified that you have been able to use and share this valuable resource.

Given that success, we have been searching for ways to expand and enhance both the quality and the content of the Wellness Journal. Each month we receive new data - news, tools, resources, recipes - to help you in your continuing journey toward health and wellness. The Wellness Journal

you are receiving today contains the most relevant portions from the last two years' worth of information. It focuses on the key areas of Diet, Exercise, General Wellness, Disease Management, Tools & Resources, and Recipes.

The goal of L3 Health and Wellness is to provide members with access to the latest information and state of the art services in each of these areas. We hope that this new Wellness Journal will help us accomplish that ambitious goal. Enjoy!



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This new format of the L3 Wellness Journal is completely customizable. You can change the order of sections according to the information you find most relevant, remove pages you don't want, and each year we will send you additional pages that you can add in. Information falls into one of these five categories:

Wellness

Diet - Helpful tips to refine your diet for healthier eating every day.

Exercise - Features different methods for people at every stage, intended to get you moving

General well-being - Including information on how sleep, stress-reduction and even aging gracefully can affect your overall wellness.

Disease Management - Deep-dive reference material about specific diseases and conditions such as Alzheimer's, cancer, angina and more.

Tools & Resources - This interactive section features personal "calculators" to help guide your wellness efforts, as well as recommended resources for more information. Be sure to check this section for information about your L3 Health/GlobalAccess privileges, as well!

Emergency Response - A resource guide for how to recognize and respond to emergency situations such as heart attack and stroke, as well as helpful tips to prepare for emergencies.

Recipes - Breakfasts, Lunches, Appetizers, Main Dishes, Sides, and yes! Even Desserts that are as tasty as they are healthy

WELLNESS

Rise and Shine: The 5 Best Breakfast Foods



Greek yogurt

While it contains important nutrients such as calcium and B vitamins, it also provides double the protein of regular yogurt for around the same number of calories.



Fresh fruit salad

Compared to drinking fruit juice, eating the fruit itself provides more intact fiber, which slows absorption and may help lower cholesterol.



Veggie omelet

Cook a veggie omelet with a 3:1 ratio of egg whites to yolk. The egg whites contain protein and water, and the yolk provides important nutrients such as vitamin A, choline and B vitamins. Sauté spinach, peppers and tomatoes and add them to your omelet for a vitamin boost.



4. Whole grain English muffin & peanut butter
Go straight to the list of ingredients on each product. With peanut butter, the only ingredient listed should be peanuts (and maybe salt). For the muffin, check that all ingredients are 100 percent whole grain.



5. Quinoa cereal with cinnamon

Aside from soy, quinoa is the only plant-based source of complete protein, meaning that it contains all of the essential amino acids. When preparing quinoa as a hot cereal over the stove, try adding almond milk, cinnamon and raisins for a splash of flavor.

10 Simple Tips to Shape Up Your Diet

1 Hit your daily fiber goal

Women need ~25g each day while men need ~38g per day. Think healthy carbohydrates in wholegrains, fruits, vegetables, beans, nuts and seeds.

2 Bite into fruits and vegetables every day

The broader the variety you choose, the wider the range of nutrients you capture. Try to double up on vegetables at lunch and dinner, and strive for two different colors on your plate.

3 Get your daily dose of nuts and seeds

A one-ounce handful of nuts or two Tbsp. serving of seeds arms you with the heart healthy benefits to reduce harmful cholesterol and increase protective cholesterol.

4 Go for fish at least twice a week

Eight to 12 ounces of fish a week provides you with the anti-inflammatory properties in omega-3s and helps reduce blood pressure, cholesterol and even boost brain health.

5 Make a meatless meal with beans each week.

Legumes, such as beans, peas and lentils, are nutrition gems. A half cup serving of these high-quality proteins are great sources of fiber, folate, potassium, iron, magnesium, selenium and zinc.





6 Downsize your portions

To manage your portions, one of the best strategies is to eat smaller meals throughout the day. That way you never reach a starving point and eat like there is no tomorrow.

7 Drink up more water

Replace sugary beverages such as sodas and sports drinks with water to help control calories and weight. An easy way to stay hydrated is to always carry a bottle of water with you.

8 Eat more wholegrains every day

Go for unrefined carbohydrates in wholegrain bread, cereal and pasta. These help satisfy your body's need for carbohydrates, while maintaining a healthier blood sugar.

9 Start your day the breakfast way

Your best bet is to combine lean protein with a little wholegrain and some fruit and/or vegetables. Studies show that people who eat breakfast are less likely to overeat the rest of the day.

10 End your last meal several hours before bed

There is no real magic to dining by 6 p.m. or not eating anything after 8 p.m.; however, it is good practice to finish your last bite at least two hours before bedtime.

Heart Healthy Eating

Changing your eating habits can be tough. Start with these eight strategies to kick-start your way toward a heart-healthy diet.

Although you might know that eating certain foods can increase your heart disease risk, it's often tough to change your eating habits. Whether you have years of unhealthy eating under your belt or you simply want to fine-tune your diet, here are eight heart-healthy diet tips. Once you know which foods to eat more of and which foods to limit, you'll be on your way toward a heart-healthy diet.



1. Control your portion size

Overloading your plate, taking seconds and eating until you feel stuffed can lead to eating more calories, fat and cholesterol than you should. Keep track of the number of servings you eat — and use proper serving sizes — to help control your portions.

2. Eat more fruits and veggies

Featuring vegetables and fruits in your diet can be easy. Keep vegetables washed and cut in your refrigerator for quick snacks. Keep fruit in a bowl in your kitchen so that you'll remember to eat it. Choose recipes that have vegetables or fruits as the main ingredient, such as vegetable stir-fry or fresh fruit mixed into salads.

3. Select whole grains

Whole grains are good sources of fiber and other nutrients that play a role in regulating blood pressure and heart health. You can increase the amount of whole grains in a heart-healthy diet by making simple substitutions for refined grain products. Or be adventuresome and try a new whole grain, such as whole-grain couscous, quinoa or barley.

Another easy way to add whole grains to your diet is ground flaxseed. Flaxseeds are small brown seeds that are high in fiber and omega-3 fatty acids, which can lower your total blood cholesterol. You can grind the seeds in a coffee grinder or food processor and stir a teaspoon of them into yogurt, applesauce or hot cereal.



4. Limit unhealthy fats and cholesterol

The best way to reduce saturated and trans fats in your diet is to limit the amount of solid fats — butter, margarine and shortening — you add to food when cooking and serving. You can also reduce the amount of saturated fat in your diet by trimming fat off your meat or choosing lean meats with less than 10 percent fat.

You can also use low-fat substitutions when possible for a heart-healthy diet. For example, top your baked potato with salsa or low-fat yogurt rather than butter.

Also, check food labels of “reduced fat” items — they may be made with oils containing trans fats. One clue that a food has some trans fat in it is the phrase “partially hydrogenated” in the ingredient list.

When you do use fats, choose monounsaturated fats, such as olive oil or canola oil. Polyunsaturated fats, found in nuts and seeds, also are good choices for a heart-healthy diet.

5. Choose low-fat protein sources

Lean meat, poultry and fish, low-fat dairy products, and egg whites or egg substitutes are some of your best sources of protein. But be careful to choose lower fat options, such as skim milk rather than whole milk and skinless chicken breasts rather than fried chicken patties.



Fish is another good alternative to high-fat meats. And certain types of fish are rich in omega-3 fatty acids, which can lower blood fats called triglycerides. You'll find the highest amounts of omega-3 fatty acids in cold-water fish, such as salmon, mackerel and herring. Other sources are flaxseed, walnuts, soybeans and canola oil.

Legumes — beans, peas and lentils — also are good sources of protein and contain less fat and no cholesterol, making them good substitutes for meat.

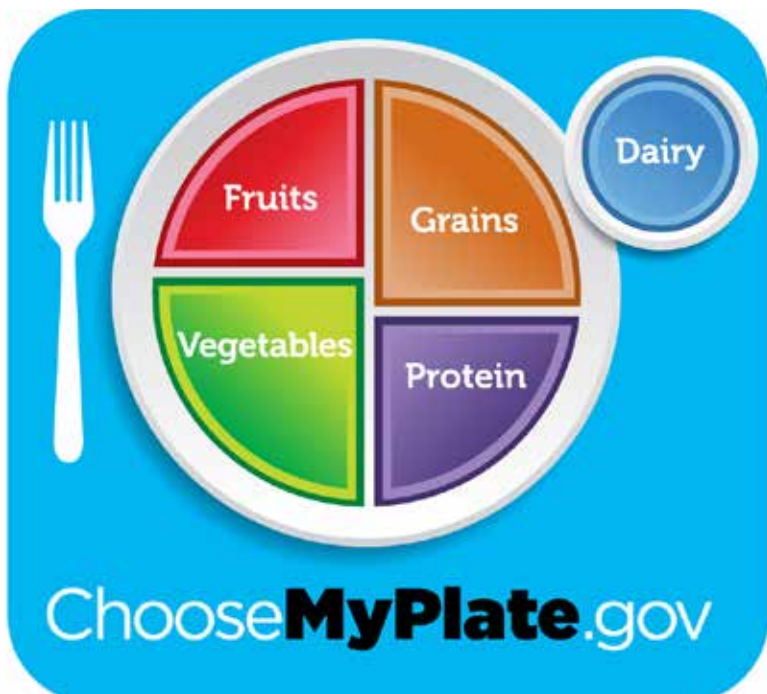
6. Reduce your sodium intake

The Department of Agriculture recommends:

- Healthy adults have no more than 2,300 milligrams sodium a day (about a teaspoon)
- People age 51 or older, African-Americans, and people who have been diagnosed with high blood pressure, diabetes or chronic kidney disease have no more than 1,500 mg a day

Eating fresh foods and making your own soups and stews can reduce the amount of salt you eat. If you like the convenience of canned soups and prepared meals, look for ones with reduced sodium. Be wary of foods that claim to be lower in sodium because they are seasoned with sea salt instead of regular table salt — sea salt has the same nutritional value as regular salt.





7. Plan ahead: Create daily menus

Create daily menus using the six strategies listed above. When selecting foods for each meal and snack, emphasize vegetables, fruits and whole grains. Choose lean protein sources and limit high-fat and salty foods. Watch your portion sizes and add variety to your menu choices. For example, if you have grilled salmon one evening, try a black-bean burger the next night. This helps ensure that you'll get all of the nutrients your body needs. Variety also makes your meals and snacks more interesting.

8. Allow yourself an occasional treat

Allow yourself an indulgence every now and then. A candy bar or handful of potato chips won't derail your heart-healthy diet. But don't let it turn into an excuse for giving up on your healthy-eating plan. If overindulgence is the exception, rather than the rule, you'll balance things out over the long term. What's important is that you eat healthy foods most of the time.

Sample Menus: Cut the fat and salt

Heart-healthy eating can be easy if you have a strong start. Use these menus to kick off your heart-healthy diet.

Do you want to adopt a heart-healthy diet, but aren't sure where to start? One way to begin is to create a daily meal plan that emphasizes whole grains, fruits and vegetables, and limits high-fat foods (such as red meat, cheese and baked goods) and high-sodium foods (such as canned or processed foods).

Below are two days' worth of heart-healthy menus. Use them as examples of heart-healthy eating.



Day 1

Breakfast

1 cup cooked oatmeal, sprinkle with 1 tablespoon cinnamon and chopped walnuts
1 banana
1 cup skim milk

Lunch

1 cup low-fat (1% or lower) plain yogurt with 1 teaspoon ground flaxseed
1/2 cup peach halves
5 Melba toast crackers
1 cup raw broccoli and cauliflower
2 tablespoons low-fat cream cheese, plain or vegetable flavor (as a spread or vegetable dip)
Sparkling water

Dinner

Grilled turkey burger (4 ounces) with a whole-grain bun
1/2 cup green beans with toasted almonds
2 cups mixed salad greens
2 tablespoons low-fat salad dressing
1 tablespoon sunflower seeds
1 cup skim milk
1 small orange

Snack

1 cup skim milk
9 animal crackers

Day 2

Breakfast

1 cup plain low-fat yogurt, topped with 3/4 cup blueberries
3/4 cup calcium-fortified orange juice

Lunch

1 whole-wheat pita stuffed with 1 cup shredded romaine lettuce, 1/2 cup sliced tomato, 1/4 cup sliced cucumber, 2 tablespoons crumbled feta cheese and 1 tablespoon reduced-fat ranch dressing
1 kiwi
1 cup skim milk

Dinner

Chicken stir-fry with eggplant and basil
1 cup brown rice with 1 tablespoon chopped dried apricots
1 cup steamed broccoli
4 ounces red wine or concord grape juice

Snack

3 graham cracker squares
1 cup fat-free frozen yogurt

Menu planning: Eat healthier and spend less

Menu planning is a great way to make sure you're eating a balanced diet and meeting your nutritional needs. And, as every frugal cook knows, menu planning can save you time and money.

Benefits of menu planning

You can have a big impact on your health — and your budget — just by eating at home more often. With menu planning you know what your meals will look like and what you need to buy. That makes grocery shopping more efficient and cuts down on unplanned trips to buy one or two items. And with a grocery list in hand — a byproduct of good menu planning — it's easier to resist impulse purchases.

Menu-planning basics

Menu planning doesn't have to be complicated. To get started, jot down some of your favorite meals. Cooking for a family? Ask them to suggest menu ideas, too. For more inspiration, flip through cookbooks or check out recipe websites. You can even find sample menus and menu-planning apps online.

Plan several days or a week of meals at a time. Make sure to include side dishes as well as entrees and some healthy desserts, too. When you have your menu plan filled in, create a shopping list of the ingredients you'll need.



Some things to consider as you contemplate menu options:

1. Look for sales. What's on sale this week at the supermarket?
2. Shop your pantry. That can of beans in the back of the cabinet could be the starting point for any number of healthy meals.
3. Think seasonal. What fresh produce is available this time of year? Is it salad season or soup weather?
4. Mix things up. Keep the menu interesting by planning some meatless meals or substituting a breakfast for a dinner. Alternate new recipes and old favorites.
5. Picture the plate. As you plan each meal, keep in mind that vegetables and fruits should cover half your plate, lean protein should cover a quarter, and the rest of your plate should be grains, preferably whole grains.

Get into the menu-planning routine

Like any new habit, menu planning gets easier with practice. Over time, you'll figure out ways to make the process work for you. Here are some tips and tricks from seasoned menu planners:

Give each day a theme. Don't start from scratch every week.



Establish theme days. For example, designate Mondays as pasta nights and Thursdays as chicken nights. Plan to try new recipes on Saturdays and polish off leftovers on Sundays.



Recycle your menus. Don't throw away your menu plan at the end of the week. Instead, hold on to it and reuse it later.



Be flexible. Your menu isn't written in stone. Feel free to swap things around. Or designate one night as "cook's choice" and use that night to clear out the refrigerator by making a casserole, stir-fry or other mix-and-match meal.

Eat earlier, Lose weight?

A recent Brigham and Women's Hospital study, done in collaboration with Spain's University of Murcia and Tufts University in Boston, suggests there may be some benefit to examining and potentially altering meal timing.

In this study, researchers gave 420 overweight individuals a diet that included fruits and vegetables, legumes, fish and whole grains for 20 weeks. The participants were divided into two groups dubbed early eaters and late eaters. The early group ate lunch anytime before 3pm and late eaters ate after 3pm. Late eaters lost significantly less weight than early eaters, and also showed a much slower rate of weight loss. Calorie intake, dietary composition, estimated calorie expenditure, appetite hormones and sleep duration all were similar between both groups.

Interestingly, it was only the timing of lunch in this study that seemed to matter. The timing of other meals - like skipping breakfast or eating a later dinner - did not appear to play a role in weight management, according to the study researchers. Yet a closer look, found the late eaters were more likely to skip breakfast or have a breakfast with fewer calories. This may be a contributor to the lesser weight loss in the late eaters, as much research already exists underscoring the importance of breakfast eating that includes a morning meal consisting of a balance of protein and carbohydrate.

It is still important to stay mindful of the overall calories consumed and the calories burned via physical activity. However, this study does suggest it may be worth trying to eat a bigger meal for lunch and a lighter meal for dinner - if possible according to your lifestyle. The adage of eat breakfast like a king, eat lunch like a prince, and eat dinner like a pauper may benefit some individuals in their quest to lose unwanted pounds.

Strategies for Eating less

Food is everywhere making overeating easy. Often hunger and taste appeal are further down the pecking order of why we eat. Here's a summary of tips to help us not over consume calories.



Use smaller plates, bowls and utensils.



Keep calorie-dense foods less visible.



Be the first to order at a restaurant.



Keep food off the table at dinner.



Don't be fooled by some product advertising.



Don't snack from the bag or package.



Eat in a limited number of areas.



Limit shopping when hungry.

Eating for hunger and enjoyment is the key. Calories can add up quickly so you want to make them truly count. Take the time to savor every bite, flavor and texture.

Water: How much should you drink every day?

Studies have produced varying recommendations over the years, but in truth, your water needs depend on many factors, including your health, how active you are and where you live.

How much water do you need?

The Institute of Medicine determined that an adequate intake (AI) for men is roughly 3 liters (about 13 cups) of total beverages a day. The AI for women is 2.2 liters (about 9 cups) a day.



What about the advice to drink eight glasses a day?

Everyone has heard the advice, “Drink eight 8-ounce glasses of water a day.” That’s about 1.9 liters, which isn’t that different from the Institute of Medicine recommendations. Although the “8 by 8” rule isn’t supported by hard evidence, it remains popular because it’s easy to remember. Just keep in mind that the rule should be reframed as: “Drink at least eight 8-ounce glasses of fluid a day,” because all fluids count toward the daily total.

Factors that influence water needs

1. **Exercise.** If you exercise or engage in any activity that makes you sweat, you need to drink extra water to compensate for the fluid loss. An extra 400 to 600 milliliters (about 1.5 to 2.5 cups) of water should suffice for short bouts of exercise, but intense exercise lasting more than an hour (for example, running a marathon) requires more fluid intake.
2. **Environment.** Hot or humid weather can make you sweat and requires additional intake of fluid. Heated indoor air also can cause your skin to lose moisture during wintertime. Further, altitudes greater than 8,200 feet (2,500 meters) may trigger increased urination and more rapid breathing, which use up more of your fluid reserves.
3. **Illnesses or health conditions.** When you have fever, vomiting or diarrhea, your body loses additional fluids. In these cases, you should drink more water. Also, you may need increased fluid intake if you develop certain conditions, including bladder infections or urinary tract stones. On the other hand, some conditions such as heart failure and some types of kidney, liver and adrenal diseases may impair excretion of water and even require that you limit your fluid intake.
4. **Pregnancy or breast-feeding.** The Institute of Medicine recommends that pregnant women drink 2.3 liters (about 10 cups) of fluids daily and women who breast-feed consume 3.1 liters (about 13 cups) of fluids a day.

Beyond the tap: Other sources of water

Although it's a great idea to keep water within reach at all times, you don't need to rely only on what you drink to meet your fluid needs. What you eat also provides a significant portion of your fluid needs. On average, food provides about 20 percent of total water intake. In addition, beverages such as milk and juice are composed mostly of water. Even beer, wine and caffeinated beverages — such as coffee, tea or soda — can contribute, but these should not be a major portion of your daily total fluid intake. Water is still your best bet because it's calorie-free, inexpensive and readily available.

Alcohol and Your Health

Many believe a nice glass of pinot noir or a cold beer can help you unwind after a long day. Even though there are studies and reports that talk about both the benefits and dangers of alcohol, how do you sort out the good and the bad?

We have the facts about alcohol: In excessive quantities, alcohol can be very harmful to your health. However, when consumed in moderation by people without risk for complications, alcohol may be safe—and even offer somewhat of a cardioprotective effect.



The Dangers of Alcohol

There are certainly drawbacks to consider when it comes to alcohol. Among other things, it ends up causing you to gain weight, and that has adverse effects in and of itself. Most alcoholic drinks have somewhere around 200 to 250 calories per drink—and that means extra activity to burn off those calories.

Excessive alcohol consumption may also damage your liver and your heart, and increase the risk of developing some types of cancer. While researchers haven't quite pinpointed how, alcohol is essentially toxic to cells. Mental health problems, such as depression, can worsen due to excessive alcohol consumption, and gastrointestinal and cardiovascular conditions may also occur.

The Benefits of Alcohol

For some people, moderate alcohol intake may have a benefit for the heart. If there is a cardioprotective benefit, that's going to be for people in the middle-age category with heart disease, as opposed to someone who is 25 to 30.

Most of the other effects of alcohol are considered neutral to maybe deleterious. If you sum up the cardiovascular benefits of other healthy lifestyle changes, you're going to get much more benefit from exercise and weight maintenance than drinking alcohol. Alcohol consumption as a health benefit would be considered minor compared to other things that we know benefit heart health.

Before You Pour a Glass

Certainly there is no research that would say if you're not drinking alcohol you should start. Of course, people with a history of substance abuse, pregnant women, those with certain medical conditions and those younger than 21 years old should never drink alcohol.

Kenneth H. Cooper, MD, MPH, Founder and Chairman of Cooper Aerobics, also stresses that you shouldn't reach for a glass simply for the health benefits. "If you don't drink, don't start," says Dr. Cooper. "If you exceed moderate levels of alcohol consumption, there's a sharp increase in the risk for disease. That risk shoots way up above the nondrinker."

It's also important not to fall into the trap of thinking that drinking alcohol can replace other healthy habits, like exercise.

Moderation is essential when it comes to alcohol, because there's a fine line between a potential benefit and doing harm to your body. Traditionally two drinks per day for men and one drink per day for women is the recommended maximum. Cooper Clinic recommends no more than 10 drinks per week for men and no more than six drinks per week for women.

Snacks: How they fit into your weight-loss plan

Although you may feel guilty about snacking, snacks aren't necessarily bad. In fact, well-planned weight-loss diets allow for snacks to help manage hunger and reduce bingeing. Eating a healthy snack can tame your hunger without ruining your appetite for your next meal. The key to incorporating snacks into your weight-loss plan is to keep moderation and balance in mind.

Know which foods to reach for

You can eat more of foods with high water or fiber content and few calories, such as carrots, grapes and air-popped popcorn, for your 100 calories. Choose snacks from these food groups:

1. Eating fruits and vegetables provides a feeling of fullness and only a small number of calories. Fruits and vegetables also provide vitamins, minerals, fiber and other nutrients.
2. Whole-grain snacks are rich in fiber and complex carbohydrates, which give you energy with staying power. Look for items such as low-fat whole-grain crackers, whole-grain pretzels and whole-grain crispbreads.
3. Nuts and seeds provide protein, so you will feel fuller longer. They are high in fat, but it's mostly monounsaturated, a healthy kind of fat. Nuts and seeds are high in calories, however, so don't eat them in large quantities.
4. Low-fat dairy products. Cheese, yogurt and other dairy products are good sources of calcium and protein, plus many other vitamins and minerals. Choose the low-fat versions. Some yogurts have extra added sugar, so look for plain, low-calorie or "light" varieties.

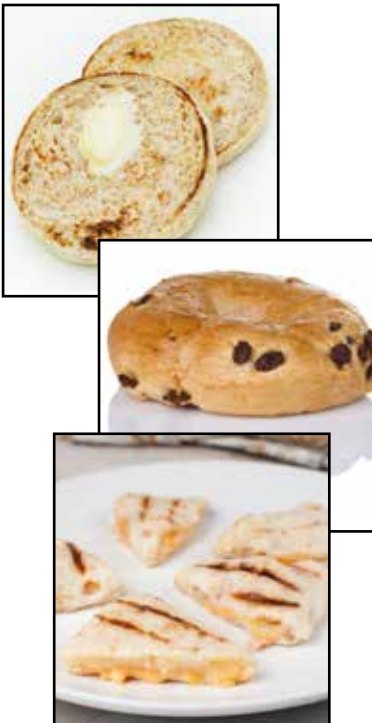


Choose healthy snacks

Select foods that satisfy your hunger, supply your body with energy and provide important nutrients. Opt for snacks of 100 calories or less to stay within your daily calorie goal. So what are some smart choices? Here are several suggestions for 100-calorie snacks:



Grab-and-Go Ideas (200 calories)



Plan ahead to make better choices

With planning and a little preparation, you can have healthy foods on hand so that you're ready when temptation strikes:

1. Prepare and pack healthy meals at home for children and/or adults to eat at school or work.
2. Have healthy snacks available at home and bring nutrient-dense snacks to eat when on the go.
3. Before attending parties, eat a small, healthy snack at home. Then at the party take small portions and focus on healthy options.
4. When a snack fills in for a meal

Source: Mayo Clinic

Organic foods: Are they safer? More nutritious?

Once found only in health food stores, organic food is now a regular feature at most supermarkets. On one hand, you have a conventionally grown apple. On the other, you have one that's organic. Both apples are firm, shiny and red. Both provide vitamins and fiber, and both are free of fat, sodium and cholesterol. Which should you choose? Conventionally grown produce generally costs less, but is organic food safer or more nutritious?

Conventional vs. organic farming

The word “organic” refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products and meat. Here are some key differences between conventional farming and organic farming:

Conventional	Organic
Apply chemical fertilizers to promote plant growth.	Apply natural fertilizers, such as manure or compost, to feed soil and plants.
Spray insecticides to reduce pests and disease.	Use beneficial insects and birds, mating disruption or traps to reduce pests and disease.
Use herbicides to manage weeds.	Rotate crops, till, hand weed or mulch to manage weeds.
Give animals antibiotics, growth hormones and medications to prevent disease and spur growth.	Give animals organic feed and allow them access to the outdoors. Use preventive measures — such as rotational grazing, a balanced diet and clean housing — to help minimize disease.



Organic or not? Check the label

Any product labeled as organic must be USDA certified. If a food bears a USDA Organic label, it means it's produced and processed according to the USDA standards. The seal is voluntary, but many organic producers use it. Products certified 95 percent or more organic display this USDA seal.

- **100 percent organic.** To use this phrase, products must be either completely organic or made of all organic ingredients.
- **Organic.** Products must be at least 95 percent to use this term.
- Products that contain at least 70 percent organic ingredients may say "made with organic ingredients" on the label, but may not use the seal.
- Foods containing less than 70 percent organic ingredients can't use the seal or the word "organic" on their product labels. They can include the organic items in their ingredient list, however.

Do ‘organic’ and ‘natural’ mean the same thing?

No, “natural” and “organic” are not interchangeable terms. You may see “natural” and other terms such as “all natural,” “free-range” or “hormone-free” on food labels. These descriptions must be truthful, but don’t confuse them with the term “organic.” Only foods that are grown and processed according to USDA organic standards can be labeled organic.

Organic food: Is it more nutritious?

The answer isn’t yet clear. A recent study examined the past 50 years’ worth of scientific articles about the nutrient content of organic and conventional foods. The researchers concluded that organically and conventionally produced foodstuffs are comparable in their nutrient content. Research in this area is ongoing.

Organic food: Other considerations

Many factors influence the decision to choose organic food. Some people choose organic food because they prefer the taste. Yet others opt for organic because of concerns such as:

- **Pesticides.** Conventional growers use pesticides to protect their crops from molds, insects and diseases. When farmers spray pesticides, this can leave residue on produce. Some people buy organic food to limit their exposure to these residues. According to the USDA, organic produce carries significantly fewer pesticide residues than does conventional produce. However, residues on most products — both organic and nonorganic — don’t exceed government safety thresholds.
- **Food additives.** Organic regulations ban or severely restrict the use of food additives, processing aids and fortifying agents commonly used in nonorganic foods, including preservatives, artificial sweeteners, colorings and flavorings, and monosodium glutamate.
- **Environment.** Some people buy organic food for environmental reasons. Organic farming practices are designed to benefit the environment by reducing pollution and conserving water and soil quality.

Are there downsides to buying organic?

One common concern is cost. Organic foods typically cost more due, in part, to more expensive farming practices. Because organic produce isn't treated with waxes or preservatives, it may spoil faster. Also, some may look less than perfect — odd shapes, colors or sizes. However, organic foods must meet the same quality and safety standards as those of conventional foods.

Food safety tips

Whether you go totally organic or opt to mix conventional and organic foods, be sure to keep these tips in mind:

- **Select a variety of foods from a variety of sources.** This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.
- **Buy fruits and vegetables in season when possible.** To get the freshest produce, ask your grocer what day new produce arrives. Or check your local farmers market.
- **Read food labels carefully.** Just because a product says it's organic or contains organic ingredients doesn't necessarily mean it's a healthier alternative. Some organic products may still be high in sugar, salt, fat or calories.

Wash and scrub fresh fruits and vegetables thoroughly. Washing helps remove dirt, bacteria and traces of chemicals from the surface of fruits and vegetables. Not all pesticide residues can be removed by washing, though. You can also peel fruits and vegetables, but peeling can mean losing some fiber and nutrients.



Nutrition Facts: An interactive guide to food labels

The Nutrition Facts label is required by the Food and Drug Administration on most packaged foods and beverages. The Nutrition Facts label provides detailed information about a food's nutrient content, such as the amount of fat, sodium and fiber it has.

Reading food labels

Nutrition Facts			
Serving Size 16 Crackers (31 g)			
Servings Per Container About 9			
Amount Per Serving			
Calories 150 Calories from Fat 50			
% Daily Value*			
Total Fat 6 g			9%
Saturated Fat 1 g			6%
Trans Fat 1 g			
Polyunsaturated Fat 2 g			
Monounsaturated Fat 2 g			
Cholesterol 0 mg			0%
Sodium 270 mg			11%
Total Carbohydrate 21 g			7%
Dietary Fiber 1 g			4%
Sugars 3 g			
Protein 2 g			
Vitamin A 0% • Vitamin C 0%			
Calcium 2% • Iron 6%			
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65 g	80 g
Sat. Fat	Less than	20 g	25 g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2,400 mg	2,400 mg
Total Carbohydrate		300 g	375 g
Dietary Fiber		25 g	30 g

Source: Department of Health and Human Services, 2006. This label does not meet the labeling requirement

Knowing how to read food labels is especially important if you have health conditions, such as high blood pressure or high cholesterol, and need to follow a special diet. It also makes it easier to compare similar foods to see which is a healthier choice. The more practice you get reading food labels, the better you can become in using them as a tool to plan your healthy, balanced diet.

For help decoding Nutrition Facts labels, check out this online interactive guide: http://www.mayoclinic.com/health/nutrition-facts/NU00293/?utm_source=newsletter&utm_medium=email&utm_campaign=housecall&pubDate=08/01/2012

Deciphering Food Labels

There are a slew of terms and descriptions for the foods we eat and if you look closely, you can often find at least five adjectives on any given food package. Some terms are vague and need deciphering.



Take an organic box of cookies. It is still a box of cookies that can be very high in calories and saturated fat! Organic does not automatically mean “healthy,” although research shows that many consumers believe this to be true. The term “organic” has a specific definition that can be helpful.

What Does Organic Really Mean?

On food labels, products that use the term “organic” must meet the following guidelines:

1. “100 percent organic” means the food must contain only organically produced ingredients (excluding water and salt).
2. “Organic” means the food must consist of at least 95 percent organically produced ingredients (excluding water and salt).
3. “Made with organic ingredients” means the food must contain at least 70 percent organic ingredients and list up to three of the organic ingredients or food groups on the main display panel.

What is Natural?

The term “natural” is a gray one. Lard could be considered “natural” just as much as a peach or a stalk of broccoli. There is no formal definition for the term “natural” on food labels and the FDA and the USDA have not issued a standard use of this term. However, “natural” claims have become commonplace on many foods and beverages. The FDA follows a 1993 policy that states: [FDA] has not objected to the use of the term on food labels provided it is used in a manner that is truthful and not misleading and the product does not contain added color, artificial flavors or synthetic substances.

More Terms You Might See:

The words “fat-free,” “sugar-free,” or “calorie-free” on food labels can be helpful when deciding what to put in your grocery cart if your goal is avoid foods containing that nutrient. For example, “calorie-free” means there are less than five calories per serving. Foods listed as “sugar-free” and “fat-free” both consist of less than 0.5 grams per serving.

How Low Can You Go?

Foods that claim “low fat,” “low sodium,” “low cholesterol ” or “ low calorie” have specific definitions:

1. Low Fat: 3 g or less per serving
2. Low Saturated Fat: 1 g or less per serving, with no more than 15% of the calories coming from saturated fat
3. Low Sodium: 140 mg or less per serving
4. Low Cholesterol: 20 mg or less and 2 g or less of saturated fat
5. Low Calorie: 40 calories or less per serving

There are many other terms and definitions that may be relevant to your specific health needs. A registered dietitian can help you navigate the terminology maze and tailor a meal plan that fits your lifestyle. If you are curious about additional terms and definitions, a complete listing of health claims approved for food labels is available from the Center for Food Safety and Applied Nutrition at www.cfsan.fda.gov/label.html.

The Scoop on Sweeteners

So many sweeteners — natural, artificial. Zero-calorie, low-calorie, high-calorie. What's the best way to satisfy your sweet tooth? Below we compare natural and artificial sweeteners, and let you decide.

Natural sweeteners

The difference in nutritional value for white sugar, raw sugar, honey and agave nectar is insignificant. However, agave nectar and honey are sweeter than sugar, so you may not need as much. Stevia and monk fruit are non-nutritive natural sweetener options.

1. **Turbinado or raw sugar.** Made from sugar cane juice, raw sugar is slightly less processed than white sugar. It may contain a small but insignificant amount of vitamins and minerals.
2. **Honey.** Honey contains antioxidants, vitamins and minerals, but the amounts are too small to be of any health benefit. Note: Honey should not be given to infants because it may contain botulism bacteria spores, a serious health hazard for babies.
3. **Agave nectar.** Extracted from a desert plant, agave nectar is popular for its low glycemic index and concentrated sweetness. It contains a small amount of antioxidants, but not enough to benefit health. Agave nectar should not be given to infants because it is not pasteurized.
4. **Stevia.** Stevia is a South American plant available in powder, liquid and leaf form. You can also grow it in your garden. Stevia does not raise blood sugar levels. Its bitter aftertaste has made debittered stevia products — Truvia® and PureVia® — popular.
5. **Monk fruit extract.** The Chinese have used this extract from monk fruit, which grows on a vine, for hundreds of years. It is the main ingredient in Nectreese®, a newcomer from the makers of Splenda®.



Today's natural sweeteners	Calories per gram (4g=1 tsp)	Comparison to sugar	Uses
Sugar	4	-	Beverages, baking
Turbinado (raw) sugar	4	Just as sweet	Beverages, baking
Honey	2.9	1.5 times sweeter	Beverages, yogurt, smoothies, some baking
Agave nectar	2.9	1.4 - 1.6 times	Beverages, baking
Stevia	0	200-300 times	Beverages, fruit salads, cereals, yogurt, baking; leaves can sweeten drinks
Monk fruit extract	0	200 times	Beverages, baking and more

Artificial sweeteners

Artificial sweeteners do not raise blood glucose or insulin levels — important if you have diabetes. You may have to experiment to find one you like. Their tastes, aftertastes, intensity of sweetness and uses differ. Note: Some artificial sweeteners use a blend of nutritive and non-nutritive sweeteners to improve taste, and are not calorie-free.

Popular artificial sweeteners	Brands	Calories per gram	Comparison to sugar	Uses
Sucralose	Splenda®	0	600 times sweeter	Beverages, baking
Aspartame	Equal®, NutraSweet®, Sugar Twin	1*	200 times sweeter	Beverages only; can break down at high temperatures
Saccharin	Sweet 'n Low®	1*	200-700 times sweeter	Beverages, baking

Source: Cleveland Clinic

Vegetarian Diet

The key to a healthy vegetarian diet — like any diet — is to enjoy a variety of foods. No single food can provide all the nutrients your body needs. The more restrictive your diet is, the more challenging it can be to get all the nutrients you need. A vegan diet, for example, eliminates natural food sources of vitamin B-12, as well as milk products, which are good sources of calcium.



With a little planning, however, you can be sure that your diet includes everything your body needs. Pay special attention to the following nutrients:

1. Calcium helps build and maintain strong teeth and bones. Milk and dairy foods are highest in calcium. However, dark green vegetables, such as turnip and collard greens, kale and broccoli, are good plant sources when eaten in sufficient quantities. Calcium-enriched and fortified products, including juices, cereals, soy milk, soy yogurt and tofu, are other options.
2. Iodine is a component in thyroid hormones, which help regulate metabolism, growth and function of key organs. Vegans may not get enough iodine and be at risk of deficiency and possibly even a goiter. In addition, foods such as soybeans, cruciferous vegetables and sweet potatoes may promote a goiter. However, just 1/4 teaspoon of iodized salt provides a significant amount of iodine.
3. Iron is a crucial component of red blood cells. Dried beans and peas, lentils, enriched cereals, whole-grain products, dark leafy green vegetables and dried fruit are good sources of iron. Because iron isn't as easily absorbed from plant sources, the recommended intake of iron for vegetarians is almost double

that recommended for nonvegetarians. To help your body absorb iron, eat foods rich in vitamin C, such as strawberries, citrus fruits, tomatoes, cabbage and broccoli, at the same time as you're eating iron-containing foods.

4. Omega-3 fatty acids are important for heart health. Diets that do not include fish and eggs are generally low in active forms of omega-3 fatty acids. Canola oil, soy oil, walnuts, ground flaxseed and soybeans are good sources of essential fatty acids. However, because conversion of plant-based omega-3 to the types used by humans is inefficient, you may want to consider fortified products or supplements, or both.
5. Protein helps maintain healthy skin, bones, muscles and organs. Eggs and dairy products are good sources, and you don't need to eat large amounts to meet your protein needs. You can also get sufficient protein from plant-based foods if you eat a variety of them throughout the day. Plant sources include soy products and meat substitutes, legumes, lentils, nuts, seeds and whole grains.
6. Vitamin B-12 is necessary to produce red blood cells and prevent anemia. This vitamin is found almost exclusively in animal products, so it can be difficult to get enough B-12 on a vegan diet. Vitamin B-12 deficiency may go undetected in people who eat a vegan diet. This is because the vegan diet is rich in a vitamin called folate, which may mask deficiency in vitamin B-12 until severe problems occur. For this reason, it's important for vegans to consider vitamin supplements, vitamin-enriched cereals and fortified soy products.
7. Vitamin D plays an important role in bone health. Vitamin D is added to cow's milk, some brands of soy and rice milk, and some cereals and margarines. Be sure to check food labels. If you don't eat enough fortified foods and have limited sun exposure, you may need a vitamin D supplement (one derived from plants)
8. Zinc is an essential component of many enzymes and plays a role in cell division and in formation of proteins. Like iron, zinc is not as easily absorbed from plant sources as it is from animal products. Cheese is a good option if you eat dairy products. Plant sources of zinc include whole grains, soy products, legumes, nuts and wheat germ.

Meatless meals: The benefits of eating less meat

It can be challenging to serve healthy meals on a budget, but with planning you can eat better for less. Many people save money by adding meatless meals to their weekly menus. Meatless meals are built around vegetables, beans and grains. Meatless meals also offer health benefits.



The health factor

A plant-based diet, which emphasizes fruits and vegetables, grains, beans and legumes, and nuts, is rich in fiber, vitamins and other nutrients. And people who eat only plant-based foods generally eat fewer calories and less fat, weigh less, and have a lower risk of heart disease than nonvegetarians do.



Just eating less meat has a protective effect. A National Cancer Institute study of 500,000 people found that those who ate 4 ounces of red meat or more daily were 30 percent more likely to have died of any cause during a 10-year period than were those who consumed less. Sausage, luncheon meats and other processed meats also increased the risk. Those who ate mostly poultry or fish had a lower risk of death.



How much protein do you need?

Adults generally need 10 to 35 percent of their total daily calories to come from protein. Based on a 2,000-calorie-a-day diet, this amounts to about 50 to 175 grams a day. Of course, you can get protein from sources other than meat.

In fact, the Dietary Guidelines for Americans recommends choosing a variety of protein foods, including eggs, beans and peas, soy products, and unsalted nuts and seeds. The guidelines also suggest replacing protein foods that are higher in solid fats with choices that are lower in solid fats and calories. The fats in meat, poultry and eggs are considered solid fats, while the fats in seafood, nuts and seeds are considered oils.

Ease into it



Consider going meatless one day a week. If you don't like the idea of a whole day without meat, start with a couple of meatless dinners each week. Plan meals that feature entrees you like that are typically meatless, such as lasagna, soup or pasta salad. Or try substituting the following protein-rich foods for meat in your favorite recipes:

1. Beans and legumes — great in casseroles and salads
2. Vegetarian refried beans — good in burritos and tacos
3. Tofu — a perfect addition to stir-fry dishes

When meat is on the menu

When your meals include meat, don't overindulge. Choose lean cuts and avoid oversized portions. A serving of protein should be no more than 3 ounces — or about the size of a deck of cards — and should take up no more than one-fourth of your plate. Vegetables and fruits should cover half your plate. Whole grains make up the rest.



The Anti-Cancer Diet

The anticancer diet is the exact opposite of the typical American meal: mostly colorful vegetables and legumes, plus unsaturated fats (olive, canola, or flaxseed oils), garlic, herbs, and spices. Meat and eggs are optional. Try this list of the most promising cancer fighters, along with recommendations on how to make the most of their potential. Include at least one, and preferably two, at every meal, to maximize your protection.



A Health-Boosting Beverage

Green tea is rich in compounds called polyphenols, including catechins (and particularly EGCG), which reduce the growth of new blood vessels that feed tumors. It's also a powerful antioxidant and detoxifier (activating enzymes in the liver that eliminate toxins from the body), and it encourages cancer cell death. In the laboratory, it has even been shown to increase the effect of radiation on cancer cells.



Pomegranate Juice

Its antioxidant and anti-inflammatory properties are well confirmed; studies show it can substantially reduce the development of even the most aggressive prostate cancers (among others). In addition, drinking it daily slows the spread of an established prostate cancer by more than 50%.



Tumor-Tackling Spice

Fresh ginger is a powerful anti-inflammatory that combats certain cancer cells and helps slow tumor growth. A ginger infusion can also alleviate nausea.

Turmeric

This spice is the most powerful natural anti-inflammatory available today. It encourages cancer cell death, inhibits tumor growth, and even enhances the effectiveness of chemotherapy.



Vital Veggies

Brussels sprouts, bok choy, Chinese cabbage, broccoli, and cauliflower all contain sulforaphane and indole-3-carbinols, two potent anticancer molecules that help the body detoxify certain carcinogenic substances and can help prevent precancerous cells from developing into malignant tumors.



Garlic, Onions, Leeks, Shallots, Chives

The sulfur compounds found in this group (the alliaceous family) promote the death of colon, breast, lung, and prostate cancer cells. Epidemiological studies also suggest a lower risk of kidney and prostate cancer in people who consume the most garlic.



Proteins for a Better Prognosis

Compounds called isoflavones (including genistein, daidzein, and glycitein) prevent tumor growth and block the stimulation of cancer cells by sex hormones (such as estrogens and testosterone). There are significantly fewer breast cancer cases among Asian women who have eaten soy since adolescence, and when they do have breast cancer, their tumors are usually less aggressive with higher survival rates. Isoflavone supplements (in pill form) have been associated with an aggravation of certain breast cancers, but whole soy, eaten as food, has not.



Fatty Fish

The risk of several cancers is significantly lower in people who eat fish at least twice a week. Several studies discovered that the anti-inflammatory long-chain omega-3s found in fatty fish (or in high-quality purified fish-oil supplements) can help slow cancer cell growth in a large number of tumors (lung, breast, colon, prostate, kidney, etc.).



Disease-Fighting Fruits

Oranges, tangerines, lemons, and grapefruit contain anti-inflammatory compounds called flavonoids that stimulate the detoxification of carcinogens by the liver. Certain flavonoids in the skin of tangerines--tangeritin and nobiletin--can also help promote the death of brain cancer cells.



Berries

Strawberries, raspberries, blueberries, blackberries, and cranberries contain ellagic acid and a large number of polyphenols, which inhibit tumor growth. Two polyphenols found in berries, anthocyanidins and proanthocyanidins, promote cancer cell death.

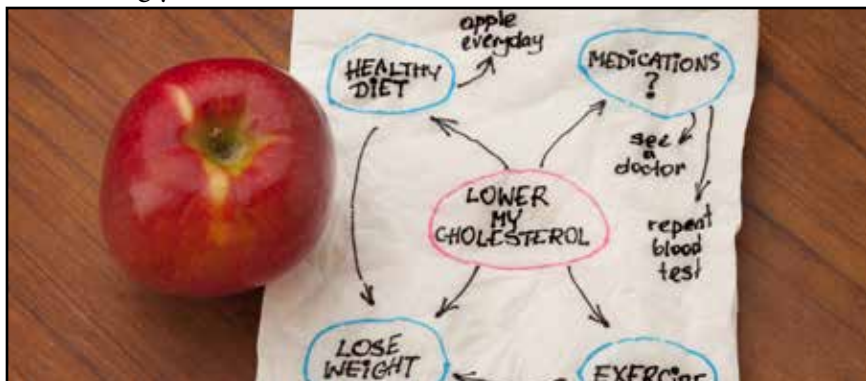


Cure It with Dessert

Chocolates containing over 70% cocoa provide a number of antioxidants, proanthocyanidins, and many polyphenols. In fact, a square of dark chocolate contains twice as many as a glass of red wine and almost as many as a cup of green tea properly steeped. These molecules slow the growth of cancer cells and limit the blood vessels that feed them.

Cholesterol: Top 5 foods to lower your numbers

Can a bowl of oatmeal help lower your cholesterol? How about a handful of walnuts or even a baked potato topped with some heart-healthy margarine? A few simple tweaks to your diet may be helpful in lowering your cholesterol.



1. Oatmeal, oat bran and high-fiber foods

Oatmeal contains soluble fiber, which reduces your low-density lipoprotein (LDL), the “bad,” cholesterol. Soluble fiber is also found in such foods as kidney beans, apples, pears, barley and prunes. Soluble fiber can reduce the absorption of cholesterol into your bloodstream. Five to 10 grams or more of soluble fiber a day decreases your total and LDL cholesterol. Eating 1 1/2 cups of cooked oatmeal provides 6 grams of fiber. To mix it up a little, try steel-cut oatmeal or cold cereal made with oatmeal or oat bran.

2. Fish and omega-3 fatty acids

Eating fatty fish can be heart healthy because of its high levels of omega-3 fatty acids, which can reduce your blood pressure and risk of developing blood clots. In people who have already had heart attacks, fish oil — or omega-3 fatty acids — reduces the risk of sudden death. The American Heart Association recommends eating at least two servings of fish a week. The highest levels of omega-3 fatty acids are in mackerel, lake trout, herring, sardines, albacore tuna, salmon and halibut. You can take an omega-3 or fish oil supplement to get some of the benefits, but you won't get other nutrients in fish, such as selenium.



3. Walnuts, almonds and other nuts

Walnuts, almonds and other nuts can reduce blood cholesterol. Rich in polyunsaturated fatty acids, walnuts also help keep blood vessels healthy. Eating about a handful a day of most nuts, such as almonds, hazelnuts, peanuts, pecans, some pine nuts, pistachio nuts and walnuts, may reduce your risk of heart disease. Just make sure the nuts you eat aren't salted or coated with sugar. All nuts are high in calories, so a handful will do.

4. Olive oil

Olive oil contains a potent mix of antioxidants that can lower your “bad” (LDL) cholesterol but leave your “good” (HDL) cholesterol untouched. Try using about 2 tablespoons of olive oil a day in place of other fats in your diet to get its heart-healthy benefits. To add olive oil to your diet, you can saute vegetables in it, add it to a marinade or mix it with vinegar as a salad dressing. Olive oil is high in calories, so don't eat more than the recommended amount.

5. Foods with added plant sterols or stanols

Foods are now available that have been fortified with sterols or stanols — substances found in plants that help block the absorption of cholesterol. Margarines, orange juice and yogurt drinks with added plant sterols can help reduce LDL cholesterol by more than 10 percent. The amount of daily plant sterols needed for results is at least 2 grams — which equals about two 8-ounce servings of plant sterol-fortified orange juice a day.

Six Substitutions for a Healthy Heart

Did you know that cardiovascular disease, also known as heart disease, is the leading cause of death in the United States?

Approximately one-third of the population has some form of heart disease typically related to atherosclerosis—the narrowing of the arteries from plaque buildup. Exercise and diet are two modifiable factors that can help prevent variables associated with heart disease including high blood cholesterol, high blood pressure and excess weight. Simple substitutions in your meals can help promote your best heart health.

Avoid using prepackaged seasoning mixes or adding salt when cooking. Prepackaged seasoning mixes tend to be high in sodium. Sodium can contribute to high blood pressure, which is a risk factor for heart disease. To add flavor to your favorite dishes use seasonings such as fresh or dried herbs (thyme, rosemary, basil, etc.), spices, garlic and citrus juices. It is important to always examine food labels to help you select lower sodium items.



Restrict refined grains from your diet. Refined grains include foods like white bread, white rice and white pasta. These products have been processed, thereby removing important nutrients and fiber. When grocery shopping, increase your fiber intake by choosing 100 percent wholegrain products. Fiber adds bulk to your diet creating a feeling of fullness. It can also reduce your risk for heart disease. Look for wholegrain products such as breads, cereals, oatmeal, brown rice, pasta and corn.



Steer clear of high-fat meats, including marbled meats, cold cuts, hot dogs, sausages, bacon and fried or breaded meats. They contain unhealthy saturated fats and can raise your blood cholesterol levels. Choose low-fat protein sources such as lean meats, poultry, legumes and fish. Also try consuming cold water fish rich in omega-3 polyunsaturated fatty acids 2-3 times per week – salmon, trout, tuna and mackerel are great options. Omega-3s are healthy fats that help reduce blood pressure and cholesterol.



Choose 1 percent and fat-free dairy products like milk, cheese and yogurt. Whole milk and whole milk dairy products contain saturated fats which increase the risk for heart disease.



Regulate the amount of butter, margarine, shortening, coconut oil and palm oil that you cook with. These products contain saturated fats which increase the risk for heart disease. Instead, sparingly use healthy unsaturated fats such as canola, olive, safflower, sesame, soybean and sunflower oil.



Control the amount of sugar-sweetened beverages you drink. Beverages that contain high-levels of sugars can be problematic for your insulin regulatory system. Drink more water or other beverages that do not have any added sugars. It is important to keep your blood sugar at a healthy level.



Berries Keep Your Brain Sharp



Research from Brigham and Women's Hospital found that a high intake of flavonoid-rich berries, such as strawberries and blueberries, can delay memory decline in older women by 2.5 years.

Previous studies on berries and memory were conducted in animals or very small groups of humans. This latest research focuses on a large sample of women and is unusually comprehensive.

“What makes our study unique is the amount of data we analyzed over such a long period of time,” explains Elizabeth Devore, a researcher in the Channing Laboratory at BWH and the lead author on this study. “No other berry study has been conducted on such a large scale.”

Devore's research team is one of many at BWH using data from the Nurses' Health Study. The Study began in 1976, when 121,700 female nurses between the ages of 30 and 55 completed health and lifestyle questionnaires, which they have continued to submit every two years since. Beginning in 1980, participants were surveyed every four years regarding their frequency of food consumption, and from 1995 to 2001, memory was measured multiple times, at 2-year intervals, in 16,010 of the women over age 70.

“We provide the first epidemiologic evidence that berries appear to slow progression of memory decline in elderly women,” notes Devore. “Our findings have significant public health implications as increasing berry intake is a fairly simple dietary modification to reduce memory decline in older adults.”

According to the study, it takes just two or more servings of strawberries or blueberries each week to reduce memory decline. That means that a simple change in diet – making sure to eat just a couple servings of berries each week – might help us all keep our memories intact for a longer period of time.

Multivitamins: Are They Worth It?

If you've taken daily multivitamins for years, you're not alone — about 40 percent of Americans do. In 2009, we spent \$27 billion on multivitamins, and today we probably spend even more.

But do multivitamins work? Experts disagree. Some think that multivitamins supply nutrients missing from our diets. Others think that multivitamins are a crutch — and an expensive one at that.

The Physicians' Health Study II tracked multivitamin use in 14,500 male physicians, aged 50 and above, over 11 years. The Iowa Women's Health study tracked multivitamin and supplement use in 38,772 women over 18 years (the average age at the study's start was 61).

What multivitamins won't do:

- Multivitamins won't prevent heart attacks or strokes. If you are a healthy adult, taking a multivitamin won't lower your risk of heart attack, stroke or death from cardiovascular disease.
- For men, multivitamins won't prevent common cancers. Taking a multivitamin may lower your overall risk of cancer if you're a man. But it won't lower your risks for the most common male cancers: prostate, colon and lung cancer. And taking a multivitamin will not lower your risk of dying from cancer.
- For women, multivitamins won't help you live longer. The women's study found that those taking multivitamins did not survive as long as those who did not.
- Taking a multivitamin won't replace healthy habits. Taking a multivitamin is no substitute for healthy lifestyle choices, such as exercising and eating healthy foods from a balanced diet."

When taking multivitamins is important

Anyone who is malnourished or who has a nutritional deficiency needs to take a multivitamin.



For the rest of us, the most important thing to ask yourself is, “Am I doing everything possible to optimize my overall health before taking a multivitamin and/or supplement?” That is your best guarantee of future health.

5 things you can do to prevent illness

Want proven results? Research shows these steps will reduce your risks of illness — especially cardiovascular disease and cancer:

1. Eat a diet low in added sugars, processed foods and saturated and trans fat
2. Eat lots of fruits, vegetables, whole grains, lean protein and low-fat dairy
3. Maintain a body mass index close to 25 kg/m²
4. Remain tobacco-free
5. Exercise most days of the week

Don't forget!

Tell your doctor about ALL vitamins and supplements you're taking.

Supplements: Nutrition in a pill?

The Dietary Guidelines for Americans make it clear that your nutritional needs should be met primarily through your diet. For some people, however, supplements may be a useful way to get nutrients they might otherwise be lacking. Supplements aren't intended to be a food substitute because they can't replicate all of the nutrients and benefits of whole foods, such as fruits and vegetables.

Whole foods offer three main benefits over dietary supplements:

1. **Greater nutrition.** Whole foods are complex, containing a variety of the micronutrients your body needs — not just one. An orange, for example, provides vitamin C plus some beta carotene, calcium and other nutrients. A vitamin C supplement lacks these other micronutrients.
2. **Essential fiber.** Whole foods, such as whole grains, fruits, vegetables and legumes, provide dietary fiber. Most high-fiber foods are also packed with other essential nutrients. Fiber can help prevent certain diseases, such as type 2 diabetes and heart disease, and it can also help manage constipation.
3. **Protective substances.** Whole foods contain other substances important for good health. Fruits and vegetables, for example, contain naturally occurring substances called phytochemicals, which may help protect you against cancer, heart disease, diabetes and high blood pressure.

Who needs supplements?

If you're generally healthy and eat a wide variety of foods, including fruits, vegetables, whole grains, legumes, low-fat dairy products, lean meats and fish, you likely don't need supplements.

However, the dietary guidelines recommend supplements in some situations. For example, adults age 50 or older should eat foods fortified with vitamin B-12, such as fortified cereals or take a multivitamin that contains B-12 or a separate B-12 supplement.

Dietary supplements also may be appropriate if you:

- Don't eat well or consume less than 1,600 calories a day
- Are a vegan or a vegetarian who eats a limited variety of foods
- Are a woman who experiences heavy menstrual bleeding
- Have a medical condition that affects how your body absorbs or uses nutrients, such as chronic diarrhea, food allergies, or a disease of the liver, gallbladder, intestines or pancreas
- Have had surgery on your digestive tract and are not able to digest and absorb nutrients properly

Talk to your doctor or a dietitian about which supplements and what doses might be appropriate for you.

If you decide to take a supplement, consider these factors:

- Read labels carefully. Product labels can tell you what the active ingredient or ingredients are, which nutrients are included, the serving size, and the amount of nutrients in each serving.
- Avoid megadoses. In general, choose a supplement that provides about 100 percent of the Daily Value of all the vitamins and minerals, rather than one which has, for example, 500 percent for one vitamin and only 20 percent for another.
- Check expiration dates. Dietary supplements can lose potency over time, especially in hot and humid climates. If a supplement doesn't have an expiration date, don't buy it. If your supplements have expired, discard them.
- Watch what you eat. Vitamins and minerals are being added to a growing number of foods, including breakfast cereals and beverages. If you're also taking supplements, you may be getting more than you realize of certain nutrients. Taking more than you need is expensive and can raise your risk of side effects. For example, too much iron can cause nausea and vomiting and may damage the liver and other organs.

Keep up with supplement safety alerts

The Food and Drug Administration (FDA) keeps a list of dietary supplements that are under regulatory review or that have been reported to cause adverse effects. If you're taking a supplement, it's a good idea to check the FDA website periodically for updates.

7 Myths About Calcium, Vitamin D & Healthy Bones



Myth #1: Only elderly women develop osteoporosis.

Fact: Osteoporosis is most common in women over age 65.

However, osteoporosis occurs in men and in younger women too. Women who start menopause early are at risk, for example. So is anyone taking medications such as long-term steroids, certain blood thinners, seizure drugs or medications for acid reflux.

Anyone, male or female, who doesn't exercise or whose diet is low in calcium or vitamin D is also at risk. Diseases that interfere with bone health, such as celiac disease and hyperparathyroidism, may also result in osteoporosis. Bone density evaluation, typically recommended for women starting at age 65, should begin earlier if you are at risk. A doctor will make recommendations based on your personal and family health history.

Myth #2: If you're lactose-intolerant, you can only get calcium from supplements.

Fact: Lactose intolerance, in which the natural sugar in milk products causes belly pain, gas and bloating, is common. But not all dairy products are off-limits for those with the condition. Yogurt that has live cultures in it has very low levels of lactose. Similarly, aged cheeses have little or no lactose. Nondairy foods that can help supply calcium include dark leafy greens and calcium-fortified foods such as cereal and juice.

Myth #3: You can't take calcium supplements if you have trouble swallowing pills.

Fact: Chewable supplements are an option. Calcium citrate is better absorbed than calcium carbonate, and calcium citrate supplements come in chewable form.

Myth #4: It's not a big deal if you forget to take your calcium supplements.

Fact: Your body needs to maintain a constant level of calcium to keep your bones strong and your muscles functioning. If you do not get enough calcium in your diet, your body will take some calcium from the bones in order to keep the blood calcium levels normal. That is why most of us require calcium supplements if we do not get the recommended 1,200 milligrams per day in our diet.

Myth #5: There's an 'ideal' dose of vitamin D.

Fact: Many adults are deficient in vitamin D, but experts debate the frequency and dose of supplementation. Depending on your level of vitamin D, physicians may recommend high doses (50,000 international units or IU) once a week or once a month to correct deficiencies, or a daily dose of 2,000 to 4,000 IU. Either way, blood tests should prove that the deficiency is corrected, which can take several months.

Myth #6: Eating dairy and taking calcium are all that's needed to prevent osteoporosis.

Fact: You need to make healthy lifestyle choices too. That means avoiding excess alcohol, not smoking, keeping your weight in check and exercising regularly. Routine workouts — including walking and other weight-bearing exercises — will help maintain muscle and bone strength.

Myth #7: You can't get too much calcium.

Fact: Too much calcium is not a good thing. If your calcium levels are too high, stay off the calcium supplements, including Tums. If you have persistently high calcium levels, don't ignore them — seek an evaluation from an expert.

Weight loss: 6 strategies for success

Hundreds of fad diets, weight-loss programs and outright scams promise quick and easy weight loss. However, the foundation of every successful weight-loss program remains a healthy, calorie-controlled diet combined with exercise. For successful, long-term weight loss, you must make permanent changes in your lifestyle and health habits. Consider following these six strategies for weight-loss success.



1. Make a commitment

Permanent weight loss takes time and effort. Make sure that you're ready to make permanent changes and that you do so for the right reasons. To stay committed to your weight loss, you need to be focused. So make a plan to address other stresses in your life first, such as financial problems or relationship conflicts. While these stresses may never go away completely, managing them better should improve your ability to focus on achieving a healthier lifestyle.

2. Find your inner motivation

Make a list of what's important to you to help stay motivated and focused, whether it's an upcoming beach vacation or better overall health. Then find a way to make sure that you can call on your motivational factors during moments of temptation. It helps to have support — pick people to support you who will encourage you in positive ways. If you prefer to keep your weight-loss plans private, be accountable to yourself by having regular weigh-ins and recording your diet and exercise progress in a journal.

3. Set realistic goals

Over the long term, it's best to aim for losing 1 to 2 pounds a week. When you're setting goals, think about both process and outcome goals. "Exercise regularly" is an example of a process goal, while "Lose 30 pounds" is an example of an outcome goal. It isn't essential that you have an outcome goal, but you should set process goals because changing your processes — your habits — is a key to weight loss. Also make sure that your goals are SMART: specific, measurable, attainable, relevant and time-limited.

5. Get active, stay active

While you can lose weight without exercise, exercise plus calorie restriction can help give you the weight-loss edge. Exercise can help burn off the excess calories you can't cut through diet alone. One of the best ways to lose body fat is through steady aerobic exercise — such as brisk walking — for at least 30 minutes most days of the week. Any extra movement helps burn calories, though.

4. Enjoy healthier foods

One way you can lower your calorie intake is by eating more plant-based foods — fruits, vegetables and whole grains. Strive for variety to help you achieve your goals without giving up taste or nutrition. Get your weight loss started by eating a healthy breakfast every day; eating at least four servings of vegetables and three servings of fruits daily; and using healthy fats, such as olive oil, vegetable oils and nut butters. Cut back on sugar, choose low-fat dairy products and keep meat consumption to a 3 oz portion.

6. Change your perspective

Lifestyle changes start with taking an honest look at your eating patterns and daily routine. After assessing your personal challenges to weight loss, try working out a strategy to gradually change habits and attitudes that have sabotaged your past efforts. And you have to move beyond simply recognizing your challenges — you have to plan for how you'll deal with them if you're going to succeed in losing weight once and for all.

Top 5 lifestyle changes to reduce cholesterol



1. Lose weight

Carrying some extra pounds — even just a few — contributes to high cholesterol. Losing as little as 5 to 10 percent of your body weight can help significantly reduce cholesterol levels. Start by taking an honest, thorough look at your eating habits and daily routine. Consider your challenges to weight loss and ways to overcome them.

If you eat when you're bored or frustrated, take a walk instead. If you pick up fast food for lunch every day, pack something healthier from home. If you're sitting in front of the television, try munching on carrot sticks instead of potato chips as you watch. Take time and enjoy rather than “devouring” your food. Don't eat mindlessly. And look for ways to incorporate more activity into your daily routine, such as using the stairs instead of taking the elevator.

2. Eat heart-healthy foods

Making a few changes in your diet can reduce cholesterol and improve your heart health.

- Choose healthier fats.
- Eliminate trans fats.
- Limit the cholesterol in your food.
- Select whole grains.
- Stock up on fruits and vegetables.
- Eat foods rich in omega-3 fatty acids.

3. Exercise on most days of the week

Whether you're overweight or not, exercise can reduce cholesterol. Moderate physical activity can help raise high-density lipoprotein (HDL) cholesterol, the "good" cholesterol. With your doctor's OK, work up to at least 30 minutes of exercise a day. Consider:

- Taking a brisk daily walk during your lunch hour
- Riding your bike to work
- Swimming laps
- Playing a favorite sport

To stay motivated, find an exercise buddy or join an exercise group. And remember, any activity is helpful. Even taking the stairs instead of the elevator or doing a few situps while watching television can make a difference.



4. Quit smoking

If you smoke, stop. Quitting may improve your HDL cholesterol level. And the benefits don't end there. Just 20 minutes after quitting, your blood pressure decreases. Within 24 hours, your risk of a heart attack decreases. Within one year, your risk of heart disease is half that of a smoker. Within 15 years, your risk of heart disease is similar to someone who never smoked.

5. Drink alcohol only in moderation

Moderate use of alcohol has been linked with higher levels of HDL cholesterol — but the benefits aren't strong enough to recommend alcohol for anyone who doesn't already drink. If you choose to drink alcohol, do so in moderation. For healthy adults, that means up to one drink a day for women of all ages and men older than age 65, and up to two drinks a day for men age 65 and younger. Drinking too much alcohol can lead to serious health problems, including high blood pressure, heart failure and stroke.

Source: Mayo Clinic

Let's Move It! Free Mobile App

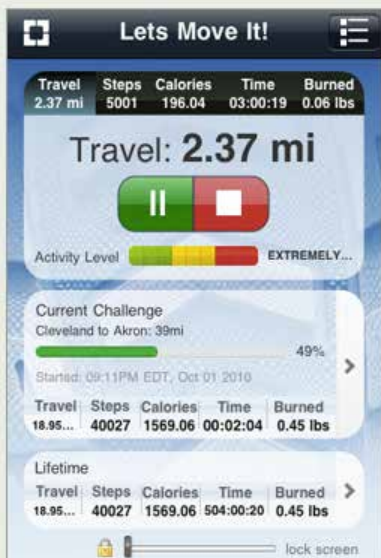
Your mobile path to a healthier lifestyle can start with walking or running, simple, effective ways to improve health.



The Let's Move It app makes walking and running fun and goal-oriented. Select among 15 walking “challenges.” Distance goals include a 26.2-mile Cleveland Marathon challenge, a 277-mile Grand Canyon challenge or a 3,890-mile Great Wall of China challenge.

Track your progress with the free pedometer feature. Access Cleveland Clinic exercise videos and information, a calorie converter and weekly wellness tips.

Available for iPhone and Android phones.



Ten Thousand Steps to a Longer, Healthier Life

We all know that exercise is good for you, but how good? While previous studies have shown the link between physical activity and a lower risk of premature death, the actual number of years of life expectancy gained from different physical activity levels has been unclear — until now.

In a new study from Brigham and Women's Hospital (BWH), in collaboration with the National Cancer Institute, researchers examined the relationship between physical activity and mortality or life expectancy among more than 650,000 participants over a ten-year period. The findings showed that physical activity was associated with longer life expectancies across a range of activity levels and body mass index (BMI) levels.

“We found that adding low amounts of physical activity to one's daily routine, such as 75 minutes of brisk walking per week, was associated with increased longevity: a gain of 1.8 years of life expectancy after age 40, compared with doing no such activity,” explained Dr. I-Min Lee, an associate epidemiologist in the Department of Preventive Medicine at BWH and senior author on this study. “Physical activity above this minimal level was associated with additional gains in longevity. For example, walking briskly for at least 450 minutes a week was associated with a gain of 4.5 years. Further, physical activity was associated with greater longevity among persons in all BMI groups: those normal weight, overweight, and obese.”

**“A 1.8 year gain
in life expectancy
after age 40”**

Participation in a low level of physical activity, comparable to up to 75 minutes of brisk walking per week, was associated with a 19 percent reduced risk of death compared to no such activity. This translated to a 1.8 year gain in life expectancy after age 40, compared with no activity.

For those people who did the equivalent of 150–299 minutes of brisk walking per week — the basic amount of physical activity currently recommended by the federal government — the gain in life expectancy was 3.4 years.

The benefits of physical activity were seen in both men and women, and among white and black participants. Just as importantly, the increase in life expectancy was observed among people who were either normal weight, overweight, or obese. Researchers found that patients who were both normal weight and active saw the largest gains in life expectancy, gaining an average of 7.2 years, compared to those with a BMI of 35 or more who did no leisure time physical activity. However, even among persons who were obese, even a small amount of exercise was associated with greater longevity.

Working exercise into your life is easier than you think. The Centers for Disease Control and Prevention (CDC) recommends 150 minutes a week for adults aged 18-64 years old. To meet this goal, the CDC suggests breaking up your daily exercise into smaller chunks of time, even as little as ten-minute segments; walking is

an easy and inexpensive way to meet your exercise goals. Using a pedometer, track your current steps for one week, then set a goal to increase this each week by 10 percent until you reach 10,000 steps. For more tips, visit the BWH Health e-Weight website.

“The Centers for Disease Control and Prevention (CDC) recommends 150 minutes a week for adults aged 18-64 years old.”



Source: Brigham and Women's Hospital

Stretch it Out

Sure, we'll stretch before or after a workout, but what about during the rest of the day? It's critical to find ways to sneak in a few minutes throughout the day to stretch. The physical benefits are outstanding. As we age, our muscles tighten and our range of motion is often minimized. Over the years, day-to-day activities may slow down and motions may stiffen. Routine stretching promotes flexibility, balance and muscle lengthening.

WRISTS/HANDS



Wrist Roll Roll your wrists regularly around every hour or so. Roll the wrist 10 times clockwise, then 10 times counterclockwise. This will help prevent Carpal Tunnel Syndrome if you spend a lot of time typing.



Wrist Stretch Stand up and turn your hands in counter-clockwise 360-degree circles and the fingers touch the edge of the desk. Later in the week and flexes your joints as much as possible. Back roll if you hangam.



Hand and Finger Stretch Extend fingers open as far as possible and hold for 5 seconds. They make a lot as tight as possible and hold for 5 seconds. Repeat the several times.

BACK



Lower Back Stretch Sit forward in your chair and bring one of your knees towards your chest. Use your hands to grab the back of your thigh and gently pull it towards you. Keep your back straight and be careful not to lean forward. Hold for 30 seconds. Switch leg position in your lower back and the upper part of your back. Relax and slowly return to the starting position, then repeat the stretch with the other leg.



Back and Elbow Stretch Place your hands on the edge of your desk and slowly push your chest back until your head is between your arms and you're looking at the floor. Then slowly pull yourself back in. Repeat 15 times.



Reach for The Sky Sit up tall in your chair and extend your arms and legs straight, maintaining your feet. Turn the palms to the ceiling as you lift your chin up, tilt your head back, and gaze up at the ceiling. Inhale, exhale, release. Stretch both arms over your head and reach for the sky again. After 10 seconds, extend the right hand higher than the left.

LEGS



Hamstring Stretch Sit up to put your feet up for the seat. To ease the hamstring and lower back, push your chair away from your desk and put your right heel up on the desk edge. Sit up straight and bend forward just until you feel a gentle stretch in the back of your leg. Put your foot on a few seconds, then point it forward a bit further. Now your foot again, and hold for 15 seconds. Repeat on the other side.

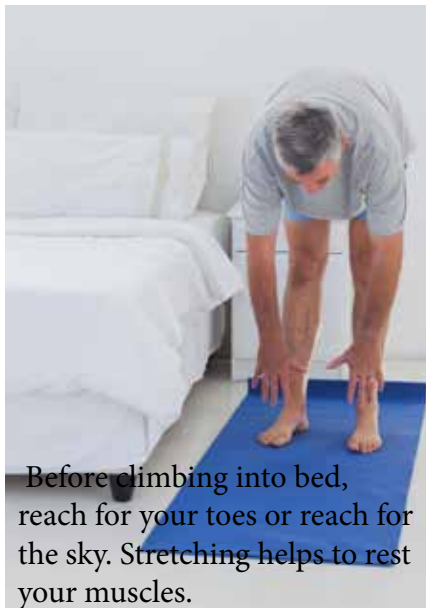


Kneeling Thigh Stretch Stretch the front of your thigh by extending your leg straight, placing one hand on a chair or table for stability. Gently pull your ankle for your patting and bring it up toward your foot. Remember to maintain an upright position, keeping your back straight and your knee parallel to your midline. Hold for 15-20 seconds. Relax and slowly return to the starting position, then repeat the stretch with your other leg.

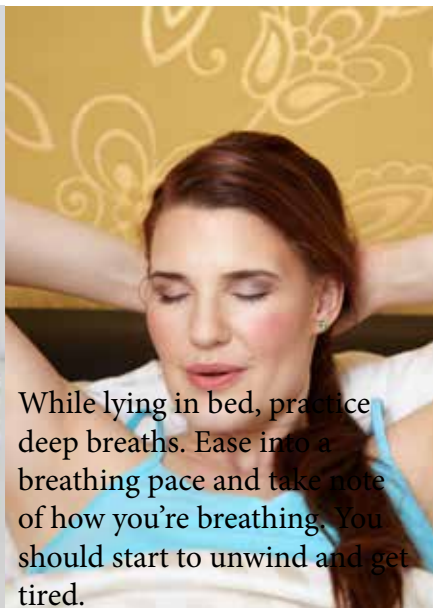


Leg Extension Lifts the rear of your chair to brace yourself and extend your legs straight out in front of you as they are parallel to the floor. Relax and point your toes five times. Relax, and repeat.

Stretching does not only benefit your muscles, but it can help you relax and manage stress. Incorporating breathing and stretching techniques is also a great way to help those who have trouble getting to sleep and waking up. Whether you're going to bed or welcoming the morning, try these techniques to promote relaxation:



Before climbing into bed, reach for your toes or reach for the sky. Stretching helps to rest your muscles.



While lying in bed, practice deep breaths. Ease into a breathing pace and take note of how you're breathing. You should start to unwind and get tired.



After you wake up, stand as tall as you can and reach for the sky to feel a total-body stretch.



While getting ready in the bathroom, grab hold of the counter or sink and walk away from it. You'll feel your back stretching.

Top Five Aerobic Exercises



Swimming is an effective activity to increase your heart rate and burn calories, along with getting your body in an aerobic state. This exercise allows for a total conditioning effect since you utilize major muscle groups throughout the body as you swim. Many swimmers often find that they experience less injuries and pressure on their bones and joints due to the buoyancy of the water.

If you suffer from joint problems, cycling can be a great activity due to a reduced pressure on your joints and muscles. In outdoor cycling you must overcome the resistance of the bike, along with propelling your body weight. To get the most out of your workout, Dr. Cooper recommends aiming for a cycling speed slightly above 15 miles per hour to receive the most aerobic benefits.

Walking is a great way to get in shape while applying minimal stress to your joints. Whether you are young or old, active or inactive, walking can be done by almost anyone, anywhere. Although it can take longer to reach the same aerobic benefits from walking as opposed to running, you can make your workout more challenging by increasing your incline on a treadmill or walking up more hills outside.

Cross-country skiing is the top aerobic activity because more muscles are involved with each movement. In this activity, you must use your arms and legs to propel your body forward. The more muscles you utilize, the more aerobic benefits you gain. This activity typically takes place at high altitude and cold weather, so your body uses more energy and muscles throughout your workout.



Running and jogging are both great options for aerobic conditioning. Whether you run at the gym or outside, you are in control of setting the intensity of your workout. When aiming to build muscle mass, you can add more resistance or jog at an incline, along with increasing your speed. In turn, you can build more muscle and prolong your calorie expenditure after your workout. It is also beneficial for you to take long strides to work your muscles through a long range of motion. This can help prevent strain and tightness in your muscles. If you want to relieve pressure on your joints from the pounding of running, try using an elliptical trainer.

Why Aerobic Activity is Good for Heart Health

Exercise can decrease your low-density lipoprotein (LDL cholesterol) and blood pressure, increase high-density lipoprotein (HDL cholesterol), improve mood, reduce your risk heart disease, stroke, type 2 diabetes, and can also impact your body's weight management process.

Which Activity is Best?

When deciding what type of aerobic activity to include in your workout routine, you should consider your current conditioning level. Are you extremely conditioned or deconditioned? If you are extremely deconditioned, it would not be beneficial for you to run for only 30 seconds because that is all you can do. Although the 30 seconds may feel draining, your body could go into an anaerobic state and utilize a completely different energy system during that time. It would be better for you to walk and sustain an elevated heart rate for an extended period of time. On the other hand, if you are well-conditioned you need to integrate an activity that will get your heart rate into an upper zone causing you to exert yourself, ultimately building a strong, healthier heart.



The American Heart Association recommends setting a goal of 10,000 steps a day. This may sound like a lot, but this includes each step you take – regardless whether you are working out or not. From the time you get up to when you go to sleep, each step counts.

You may work in a field where you are on your feet all the time and can easily reach this goal and see the clear impact it has on your health. Someone with a sedentary job will need to set aside more time in the day for a longer workout. If you are deconditioned, 10,000 steps may seem like a challenge. You can always set lower goals and work towards it. Remember that something is better than nothing! Instead of walking or running, you may prefer a different aerobic activity like swimming or working out on a different piece of equipment such as the elliptical. If this is the case, set a goal to exercise for 30 minutes a day, five days a week. The Cooper Institute's research has shown that this is the magic number to reap the benefits of heart health, prevent diabetes, cancer and other diseases, and improve quality and quantity of life. If you cannot exercise for 30 minutes a day, start with 15 to 20 minutes and work your way up. It does not have to be all at once, so try doing 10 minutes in the morning and 10 in the evening.

When you are working to improve your health, it has also been shown that exercising at a moderate intensity can boost your fitness level. You want your activity to be hard, but also something that you can maintain for an extended period of time. If you are doing something at too high of an intensity, you won't be able to maintain it long and it can often lead to overexertion. Along with setting these goals, it is always beneficial to find a workout partner or someone to train to hold you accountable to your goals.

The leading reason that most people do not maintain and stick with an exercise regimen is often due to injury. Many people experience discomfort or pain when developing new exercise habits. The best way to avoid injuries from walking or running is to keep your body and ankles in alignment. When running or walking, you should consider how your hips and spine are aligned. It is also important to understand ankle position, along with how and where your foot strikes the ground in relation to your hips. These alignments are relatively easy to remedy without a lot of intensive, difficult exercise.

Weight training: Do's and don'ts

You don't have to be a bodybuilder or professional athlete to reap the benefits of weight training. When done correctly, weight training can help you lose fat, increase your strength and muscle tone, and improve your bone density. If done incorrectly, however, it won't give you these benefits — and may even lead to injury.

Weight training do's

1. Lift an appropriate amount of weight. Start with a weight you can lift comfortably 12 to 15 times. For most people, a single set of 12 repetitions with the proper weight can build strength just as efficiently as can three sets of the same exercise. As you get stronger, gradually increase the amount of weight.
2. Use proper form. Learn to do each exercise correctly. The better your form, the better your results — and the less likely you are to hurt yourself. If you're unable to maintain good form, decrease the weight or the number of repetitions. Remember that proper form matters even when you pick up and replace your weights on the weight racks.
3. Breathe. You might be tempted to hold your breath while you're lifting weights. Don't. Holding your breath can lead to dangerous increases in blood pressure. Instead, breathe out as you lift the weight and breathe in as you lower the weight.
4. Seek balance. Work all of your major muscles — abdominals, legs, chest, back, shoulders and arms. Strengthen the opposing muscles in a balanced way, such as the front of the shoulder and the back of the shoulder.
5. Rest. Avoid exercising the same muscles two days in a row. You might work all of your major muscle groups at a single session two or three times a week, or plan daily sessions for specific muscle groups.



Weight training don'ts

1. Don't skip the warm-up. Cold muscles are more prone to injury than are warm muscles. Before you lift weights, warm up with five to 10 minutes of brisk walking or other aerobic activity.
2. Don't rush. Move the weight in an unhurried, controlled fashion. Taking it slow helps you isolate the muscles you want to work and keeps you from relying on momentum to lift the weight.
3. Don't overdo. For most people, completing one set of exercises to the point of fatigue is typically enough. Additional sets may only eat up your time and contribute to overload injury.
4. Don't ignore pain. If an exercise causes pain, stop. Try it again in a few days or try it with less weight.
5. Don't forget your shoes. Shoes with good traction can keep you from slipping while you're lifting weights.



Check your technique

If you're just getting started, work with a knowledgeable weight training specialist — a physical therapist, athletic trainer or other fitness specialist who's familiar with proper weight training technique. If you've been using weights for a while, consider scheduling time with a trainer to demonstrate your technique and identify any changes you may need to make.

The Benefits of Interval Training

High Intensity Interval Training exercise can help you kick up your fat-burning potential in less time through these workouts.

What is High Intensity Interval Training?

Out of all of the fitness modalities, HIIT is one of the highest in terms of total caloric expenditure and the post-exercise productivity. If you compare HIIT versus a steady, state long-duration cardiovascular activity such as running, the cardiovascular exercise offers less total caloric expenditure for the time spent and the aftermath of what occurs metabolically. What makes intervals successful is that they are specified in duration and expectation. Proper recovery will allow you to maintain a high level of intensity. The key is to not overexert yourself, while also keeping your heart rate and movement up.

What can you expect?

A HIIT exercise program often entails a lot of resistance and compound exercises. Compound exercises are holistic in nature and utilize more muscle and joint systems in large motion rather than a small, individual motion. An example could be a deadlift that transitions into a clean then into a shoulder press. This comprises a compound exercise, as multiple joints and muscles are moving at one time. In compound exercises there is a competition for blood flow throughout the working muscles. If you were doing a single bicep curl, your blood would actually flow to that muscle. But compound exercise like reverse lunge with a bicep curl, you have competition for which muscles get blood flow, oxygen delivery and lactate removal. HIIT is based on anaerobic intervals, but there should be a proper recovery from one exercise to the next. This training allows for variability and the duration of each interval. If the duration of interval changes, your expectation of what can be achieved in that time period should also change. It is also important to give yourself an appropriate interval of recovery to follow; otherwise, it will be difficult to maintain your endurance and strength throughout your workout.



How often should you incorporate HIIT?

If you already have a resistance training program implemented, you may choose to include this exercise program into your workouts once a week depending on your current training schedule. Due to the high intensity nature of the workout, it requires planning and thought as to how you will recover. It is not recommended to perform this type of training on a daily basis. If you are not currently using resistance training with a moderate level intensity or any anaerobic interval training, you could add HIIT two to three days a week, while also allowing yourself enough time to recover. If you fail to give yourself the proper amount of time to recover, you can end up in an over-trained state.

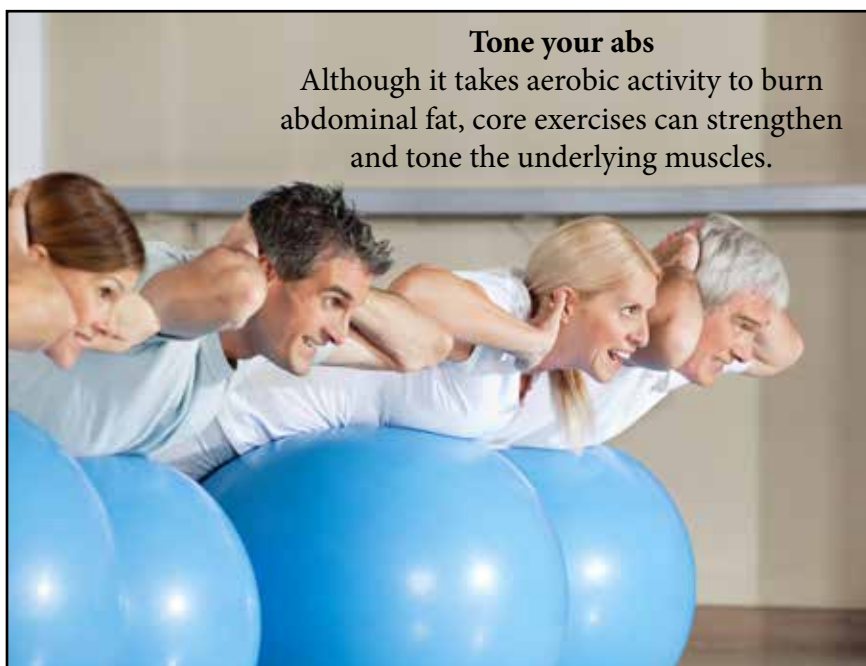
Setting HIIT goals

To begin HIIT training, a simple workout could be running stairs at your local stadium. This can be done at a steady state, or you can use a timer to see how much you can achieve in a minute. After the minute, you would allow to recover for 30 seconds then repeat the interval. An additional workout you can try is running 30 seconds of sprints followed by three minutes of jogging and one minute of walking for recovery. You can do this workout on a treadmill or outside. As with all HIIT, you need to determine how long you will perform each workout.

Why you should strengthen your core muscles

You know core exercises are good for you — but do you include core exercises in your fitness routine?

Core exercises are an important part of a well-rounded fitness program. Aside from occasional sit-ups and push-ups, however, core exercises are often neglected. Still, it pays to get your core muscles — the muscles around your trunk and pelvis — in better shape.



No special equipment needed Any exercise that involves the use of your abdominal and back muscles in coordinated fashion counts as a core exercise. A bridge is a classic core exercise. Lie on your back with your knees bent. Keep your back in a neutral position, not arched and not pressed into the floor. Avoid tilting your hips. Tighten your abdominal muscles. Raise your hips off the floor until your hips are aligned with your knees and shoulders. Hold the position for as long as you can without breaking your form.

Improve balance and stability

Core exercises train the muscles in your pelvis, lower back, hips and abdomen to work in harmony. This leads to better balance and stability, whether on the playing field or in daily activities. In fact, most sports and other physical activities depend on stable core muscles.

Make it easier to do physical activities

Strong core muscles make it easier to do everything from swinging a golf club to getting a glass from the top shelf or bending down to tie your shoes. Weak core muscles leave you susceptible to poor posture, lower back pain and muscle injuries.



Reach your fitness goals

Aerobic exercise and muscular fitness are the primary elements of most fitness programs. But to have a truly well-rounded fitness program, you should include core exercises in the mix as well. Whether you're a novice taking the first steps toward fitness or a committed fitness fanatic hoping to optimize your results, a well-rounded fitness program is the best way to reach your fitness goals.

Travel workout: Fitness tips for business travelers

When you're traveling for business, you can stick to your fitness routine — seriously! Use these simple travel-workout tips to maintain your fitness program when you're away from home. If your job keeps you on the road, you know how challenging it can be to maintain your fitness program. Hours of travel and back-to-back meetings may leave little room in your schedule for a travel workout — but exercise isn't a lost cause. A little dedication and planning can help you stay in shape when you're traveling. Consider these simple travel-workout tips.



Pack for fitness

Before your trip, contact the hotel and ask about on-site or nearby fitness facilities — then pack accordingly. Your travel-workout essentials may include:

- Athletic shoes
- Exercise clothing
- Swimsuit
- Jump-rope
- Resistance tubing
- Tennis racket
- Music and headphones
- Exercise video or DVD
- Weightlifting gloves

Get started

When you arrive at your destination, set the tone for your trip by working out right away. If that's not possible, schedule a time for your next workout and treat it as an important appointment.



Get creative and squeeze in activity whenever you can.

- Check out local parks and trails for walking or running.
- Use the halls. Walk up and down the hotel halls. Skip the elevator and take the stairs.
- Swim laps in the hotel pool.
- Skip rope.
- Do jumping jacks.
- Try aerobics. Play an exercise video or DVD.
- Use resistance tubing. These stretchy tubes offer weight-like resistance when you pull on them.
- Take advantage of your own body weight. Try pushups, abdominal crunches and leg squats.



Work out as you go

Wear your walking shoes when you travel. If you're traveling by plane, stroll through the airport terminal. When traveling by train walk through the cars occasionally. Walk outdoors when the train stops to let passengers on and off. If you're driving, take frequent breaks to get out and stretch.



Listen to your body

If jet lag or schedule changes leave you exhausted, make your travel workout shorter or lighter than usual. It's OK to take it easy once in a while.

Remember, however, that regular exercise can help reduce stress and feelings of low energy, which might be just what you need to get down to business.

Staying Healthy on a Plane

We all know someone who flew home from vacation with an unexpected souvenir: a cold or virus. It may seem like flying can make you sick, but that's not necessarily true.



Airplane air is full of germs

False. Sitting on the tarmac, the air inside a plane may seem stuffy because it is recirculated to prevent us from smelling fuel. That changes once you get to high altitudes. Half the air in an airplane is coming in from outside and is absolutely sterile. It has no microbes! The rest of the air is filtered with high-efficiency-particle HEPA filters similar to those used in critical hospital areas.

You'll get sick if another passenger is ill

Not necessarily. You may be exposed to an illness if you are sitting near someone with a cold, the flu or (in rare cases) something more serious.

Remember, getting a yearly flu vaccine can prevent you from catching the flu even if you're exposed.

You'll get sick if you're unlucky enough to be seated by a sick passenger

Not if you're careful. If you cover your cough, wash your hands and keep your hands away from your face, you can stay healthy. Using hand sanitizer after touching surfaces touched by others is a great idea. This gets tricky because you can't bring gel or liquids on a plane. Hand-sanitizer towelettes offer an airplane-friendly way to keep your hands clean, especially before in-flight meals.

If you aren't exposed to something on the plane, you probably will be at the airport

Possibly. The increased mingling of people in an airport does present some risk. You're likely to be in contact with more people — and more potentially contaminated surfaces — than normal as you are being processed for a flight or walking through a concourse.

A good night's sleep will help you resist infection

True. A recent study found that the likelihood of developing a cold was greater with less than seven hours of sleep, compared with eight or more hours of sleep. Think about how you might get more rest before, during and on your way home from a trip. Plan to get eight hours in before flying – if you don't plan ahead, it's all too easy to stay up late the night before. For long flights, eye patches, earplugs or noise-canceling headphones and a neck pillow can help you sleep.

Taking vitamins will protect you from infection

Not likely. A popular vitamin-mineral-and-herb supplement claims to reduce risks of infection while flying, but no data support those claims. Small supplemental doses of vitamin C or D won't hurt you, but practicing good hand hygiene will pack more of a punch in preventing infection.

You can avoid jetlag with carb loading and caffeine

False. A lot of folklore exists about caffeine and carb-loading, but no data show that any jet-lag “remedies” actually work. One thing that won't help is drinking alcohol to fall asleep on a plane. Drinking enhances dehydration, and dehydration worsens jet lag.

Thinking you'll get sick while flying increases the likelihood of getting sick

False. Anxiety won't make you ill, but it will certainly put a damper on your travels. Take the proactive prevention measures mentioned above to protect yourself and reduce stress. If you have a health issue that may worsen with infection, consider an N-95 mask. You can purchase these lightweight masks at any home improvement store. They filter out 95 percent of particulates, including germs, and provide you with additional peace of mind.



Source: Cleveland Clinic

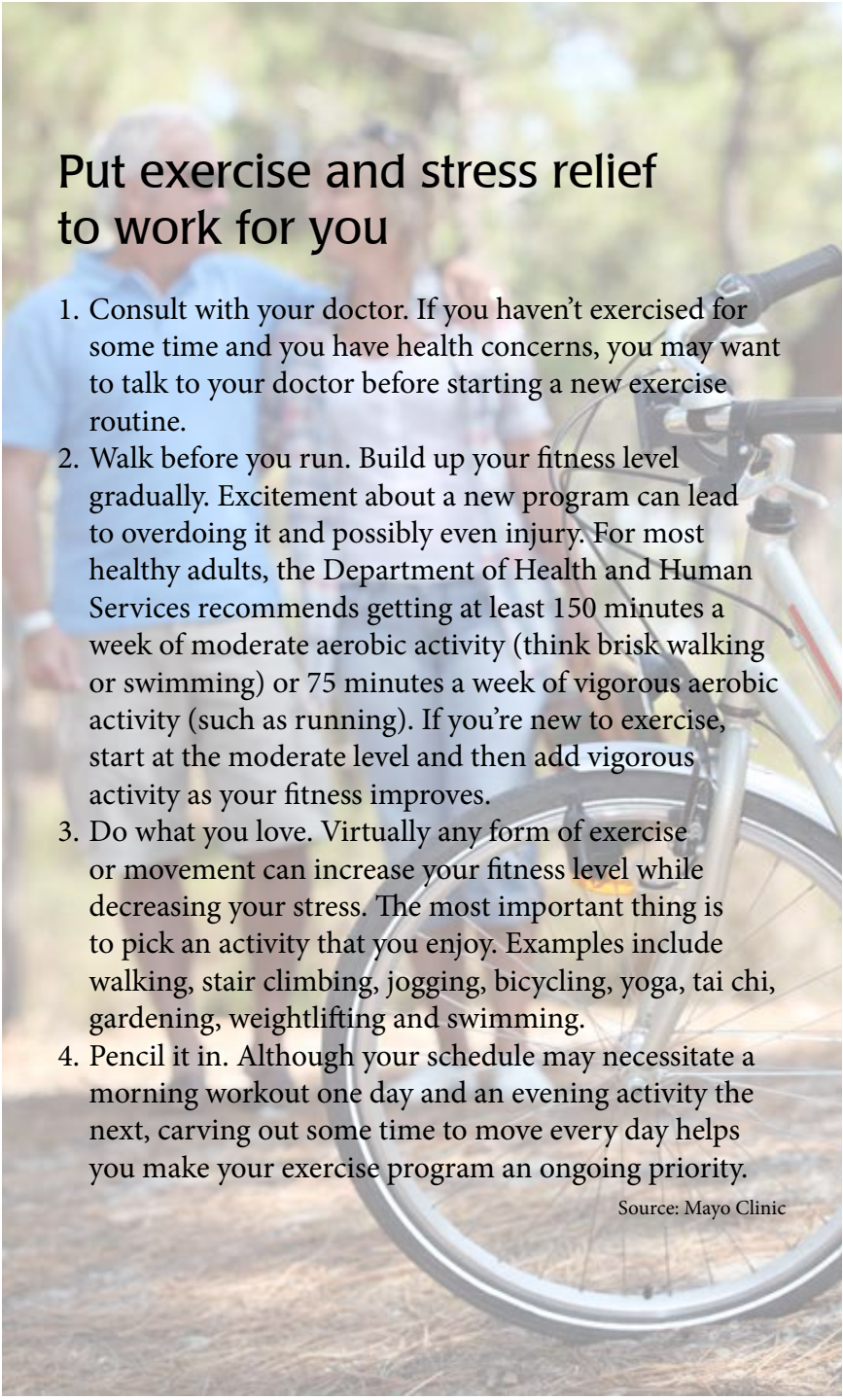
Exercise and stress: Get moving to manage stress

Virtually any form of exercise, from aerobics to yoga, can act as a stress reliever. If you're not an athlete or even if you're downright out of shape, you can still make a little exercise go a long way toward stress management. Discover the connection between exercise and stress relief — and why exercise should be part of your stress management plan.

Exercise and stress relief

Exercise increases your overall health and your sense of well-being, which puts more pep in your step every day. But exercise also has some direct stress-busting benefits.

1. It pumps up your endorphins. Physical activity helps to bump up the production of your brain's feel-good neurotransmitters, called endorphins. Although this function is often referred to as a runner's high, a rousing game of tennis or a nature hike also can contribute to this same feeling.
2. It's meditation in motion. After a fast-paced game of racquetball or several laps in the pool, you'll often find that you've forgotten the day's irritations and concentrated only on your body's movements. As you begin to regularly shed your daily tensions through movement and physical activity, you may find that this focus on a single task, and the resulting energy and optimism, can help you remain calm and clear in everything that you do.
3. It improves your mood. Regular exercise can increase self-confidence and lower the symptoms associated with mild depression and anxiety. Exercise also can improve your sleep, which is often disrupted by stress, depression and anxiety. All this can ease your stress levels and give you a sense of command over your body and your life.



Put exercise and stress relief to work for you

1. Consult with your doctor. If you haven't exercised for some time and you have health concerns, you may want to talk to your doctor before starting a new exercise routine.
2. Walk before you run. Build up your fitness level gradually. Excitement about a new program can lead to overdoing it and possibly even injury. For most healthy adults, the Department of Health and Human Services recommends getting at least 150 minutes a week of moderate aerobic activity (think brisk walking or swimming) or 75 minutes a week of vigorous aerobic activity (such as running). If you're new to exercise, start at the moderate level and then add vigorous activity as your fitness improves.
3. Do what you love. Virtually any form of exercise or movement can increase your fitness level while decreasing your stress. The most important thing is to pick an activity that you enjoy. Examples include walking, stair climbing, jogging, bicycling, yoga, tai chi, gardening, weightlifting and swimming.
4. Pencil it in. Although your schedule may necessitate a morning workout one day and an evening activity the next, carving out some time to move every day helps you make your exercise program an ongoing priority.

Source: Mayo Clinic

Laughing Away Stress

Stress management doesn't only come in the form of meditation, spa treatments or other relaxing practices. Humor and laughter are very important stress management techniques.

Humor in Relationships



Studies show that humor can help form and strengthen bonds between people. Similarity in humor appreciation in couples is positively correlated with interpersonal attraction. Humor shared between spouses has been found to contribute positively to their marital satisfaction.

Unfortunately, frequency of laughter actually decreases with age. Children laugh more than adults, and find laughter more natural. Children can often teach us about how to use humor. The key is to let childlike qualities in ourselves come forward. Adults should consciously seek out opportunities to create more humor and laughter in their lives.

Humor as a Stress Reducer

Laughter has been shown to reduce stress hormones and tension and increase relaxation. Using humor as a coping mechanism reduces the impact of stress associated with negative life events.

Laughing also has a direct impact on our body. When a person laughs hard and out loud, it has been compared to “internal jogging.” Hardy laughter results in increased heart rate, increased blood pressure, increased body temperature, tightened muscles and increased respiration. After hard laughter the body responds like after a workout. Do you remember your last big belly laugh and the relaxation you felt afterwards? Our bodies recover from the “workout” as respiration and heart rate fall to below normal levels, muscles relax, we take a slow, deep breath and feel calm and at ease.

Humor And Health

Did you know that humor has a direct impact on our health? Hardy laughter has been shown to reduce the perception of pain due to the release of endorphins. Laughter also has a stimulating effect on the immune system, which helps us resist disease.

To get the maximum benefit of humor's beneficial health effects, it's important to experience humor and laughter throughout the day. Every time you do, it has a temporary though cumulative, stimulating effect on your immune system.

Authors Nancy and Dean Hoch suggest the following ideas for incorporating humor and laughter into your everyday life:

1. Seek out people who laugh and situations that are humorous.
2. Practice laughing and force hardy laughter if necessary.
Frequently, the situation actually turns funny and you are really laughing.
3. Keep a file or scrapbook of humorous cartoons, jokes and stories.
4. Memorize jokes and stories that are funny, read the comics and humorous books, and watch comedic TV shows and movies.



Humor in our daily lives is an uplifting and fun way to help lower stress and create a positive impact on our health. As one unknown researcher summed it up, "He who laughs...lasts."

Source: Cooper Clinic

You Can Sleep Better as You Age

A good night's sleep is as important to your health as eating a healthy diet and getting regular exercise. As we age, however, it can become more difficult to get deep sleep.

Sleep problems

These conditions that may also decrease your ability to get a good night's sleep:

- Chronic pain
- Medications
- Alcohol and/or nicotine use
- Depression or anxiety
- Stress caused by financial concerns, loneliness or loss of a relative or friend



Sleep savers

These suggestions can help you get a better night's sleep:

- See your doctor if you're having trouble sleeping. He or she can help determine the cause and recommend solutions.
- Get some exercise. Regular physical activity improves sleep.
- Limit naps. A 15- to 20-minute nap no later than early afternoon can give you an energy boost, but a longer nap can throw off your sleeping schedule.
- Avoid caffeine after lunch and alcohol after dinner. Caffeine can stay in your body and delay sleep. Alcohol can lead to disrupted sleep.
- Practice good sleep habits. Go to bed and get up at the same time every day. If you're tossing and turning, get up and do something for a while.
- Don't self-medicate with over-the-counter sleeping pills, which can interact with medications you're taking and can cause daytime sleepiness. If you believe you need sleeping pills, talk with your doctor.

Source: Brigham and Women's Hospital

Top 10 Ways to Age Gracefully (from the inside out)

Move: Nothing new about exercising to maintain a healthy weight, elevate mood, and improve your overall well-being and energy.



Practice Yoga: With daily meditation, deep breathing, and yoga poses, you can be more grounded, focused, centered, ready to move through with more intention.



Eat Anti-inflammatory: An anti-inflammatory diet is rich in fresh fruits and vegetables and low in sugar and processed foods.



Sleep: To thrive from the inside out, studies indicate most of us need closer to 8 or 9 hours per night.



Meaningful Activity: Learn a new skill or work on your family tree – something to get excited and energized about.



Connect: Relationships are critical to nurture and maintain. It keeps us stimulated and involved.



Hydrate: Everything also “moves” better when you drink at least half your weight in ounces of water a day.



Embrace Your Grace: Nothing is graceful about trying too hard to look young or hip.



Wear Sunscreen: And do other preventative measures like getting your blood work, colonoscopy and teeth checked.

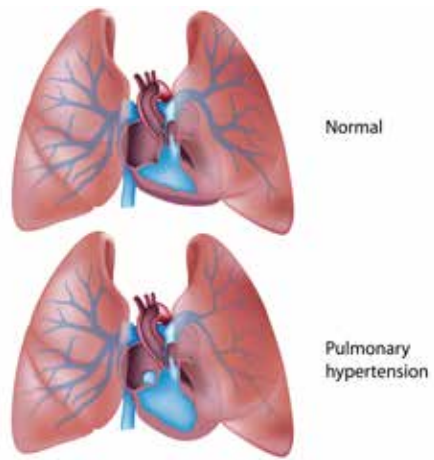


Plan: Creating a plan can offer a sense of calm and intention for moving forward.

DISEASE MANAGEMENT

High Blood Pressure

Blood pressure is determined by the amount of blood your heart pumps and the amount of resistance to blood flow in your arteries. The more blood your heart pumps and the narrower your arteries, the higher your blood pressure. Uncontrolled high blood pressure increases your risk of serious health problems, including heart attack and stroke.



Most people with high blood pressure have no signs or symptoms, even if blood pressure readings reach dangerously high levels. A few people with early-stage high blood pressure may have dull headaches, dizzy spells or a few more nosebleeds than normal, but these signs and symptoms typically don't occur until high blood pressure has reached a severe, even life-threatening, stage.

You'll likely have your blood pressure taken as part of a routine doctor's appointment. Ask your doctor for a blood pressure reading at least every two years. He or she will likely recommend more frequent readings if you've already been diagnosed with high blood pressure or other risk factors for cardiovascular disease.

There are two types of high blood pressure:

For most adults, there's no identifiable cause of high blood pressure. This type of high blood pressure, called essential hypertension or primary hypertension, tends to develop gradually over many years.

Some people have high blood pressure caused by an underlying condition. This type of high blood pressure, called secondary hypertension, tends to appear suddenly and cause higher blood

pressure than does primary hypertension. Various conditions and medications can lead to secondary hypertension, including, kidney problems; adrenal gland tumors; certain defects in blood vessels you're born with (congenital); certain medications, such as birth control pills, cold remedies, decongestants, over-the-counter pain relievers and some prescription drugs; and illegal drugs, such as cocaine and amphetamines.

High blood pressure has many risk factors, including:

1. Age. The risk of high blood pressure increases as you age.
2. Race. Particularly common among blacks, often developing at an earlier age than it does in whites.
3. Family history. High blood pressure tends to run in families.
4. Being overweight or obese.
5. Not being physically active.
6. Using tobacco.
7. Too much salt (sodium) in your diet.
8. Too little potassium in your diet.
9. Too little vitamin D in your diet.
10. Drinking too much alcohol.
11. Stress. High levels of stress can lead to a temporary, but dramatic, increase in blood pressure.
12. Certain chronic conditions including high cholesterol, diabetes, kidney disease and sleep apnea.
13. Sometimes pregnancy contributes to high blood pressure.

The excessive pressure on your artery walls caused by high blood pressure can damage your blood vessels, as well as organs in your body. The higher your blood pressure and the longer it goes uncontrolled, the greater the damage. Uncontrolled high blood pressure can lead to:

- Heart attack or stroke.
- Aneurysm.
- Heart failure.
- Weakened and narrowed blood vessels in your kidneys. This can prevent these organs from functioning normally.
- Thickened, narrowed or torn blood vessels in the eyes. This can

result in vision loss.

- Metabolic syndrome.
- Trouble with memory or understanding.

A blood pressure reading has two numbers. The first, or upper, number measures the pressure in your arteries when your heart beats (systolic pressure). The second, or lower, number measures the pressure in your arteries between beats (diastolic pressure). Blood pressure measurements fall into four general categories:

- Normal blood pressure. Your blood pressure is normal if it's below 120/80 mm Hg. However, some doctors recommend 115/75 mm Hg as a better goal. The risk of cardiovascular disease increases above that.
- Prehypertension is a systolic pressure ranging from 120-139 mm Hg or a diastolic pressure ranging from 80-89 mm Hg. Prehypertension tends to get worse over time.
- Stage 1 hypertension is a systolic pressure ranging from 140-159 mm Hg or a diastolic pressure ranging from 90-99 mm Hg.
- Stage 2 hypertension. More severe hypertension, stage 2 hypertension is a systolic pressure of 160 mm Hg or higher or a diastolic pressure of 100 mm Hg or higher.

Both numbers in a blood pressure reading are important. But after age 50, the systolic reading is even more significant. Isolated systolic hypertension — when diastolic pressure is normal but systolic pressure is high — is the most common type of high blood pressure among people older than 50.

An important way to check if your blood pressure treatment is working, or to diagnose worsening high blood pressure, is to monitor your blood pressure at home. Home blood pressure monitors are widely available, and you don't need a prescription to buy one. Talk to your doctor about how to get started.

Changing your lifestyle can go a long way toward controlling high blood pressure. But sometimes lifestyle changes aren't enough. In addition to diet and exercise, your doctor may recommend

medication to lower your blood pressure. Which category of medication your doctor prescribes depends on your stage of high blood pressure and whether you also have other medical problems.

Once your blood pressure is under control, your doctor may have you take a daily aspirin to reduce your risk of cardiovascular disorders. To reduce the number of daily medication doses you need, your doctor may prescribe a combination of low-dose medications rather than larger doses of one single drug. In fact, two or more blood pressure drugs often work better than one. Sometimes finding the most effective medication — or combination of drugs — is a matter of trial and error.

Lifestyle changes to treat high blood pressure No matter what medications your doctor prescribes to treat your high blood pressure, you'll need to make lifestyle changes to lower your blood pressure. These changes usually include eating a healthier diet with less salt, exercising more, quitting smoking and losing weight.

When your blood pressure is difficult to control If your blood pressure remains stubbornly high despite taking at least three different types of high blood pressure drugs, one of which should be a diuretic, you may have resistant hypertension. Resistant hypertension is blood pressure that's resistant to treatment. People who have controlled high blood pressure but are taking four different types of medications at the same time to achieve that control also are considered to have resistant hypertension.

Having resistant hypertension doesn't mean your blood pressure will never get lower. In fact, if your doctor can identify what's behind your persistently high blood pressure, there's a good chance you can meet your goal with the help of more effective treatment.

If you don't take your high blood pressure medications exactly as directed, your blood pressure can pay the price. If you skip doses because you can't afford the medication, because you have side effects or because you simply forget to take your medications, talk to your doctor about solutions. Don't change your treatment

without your doctor's guidance.

Although diet and exercise are the best tactics to lower your blood pressure, some supplements may help decrease it. These include:

- Alpha-linolenic acid
- Cocoa
- Omega-3 fatty acids
- Blond psyllium
- Cod-liver oil
- Calcium
- Coenzyme Q10
- Garlic

While it's best to include these supplements in your diet as foods, you can also take supplement pills or capsules. Talk to your doctor about possible interactions with your medications before adding any supplements to your blood pressure treatment.

You can also practice relaxation techniques, such as yoga or deep breathing, to help you relax and reduce your stress level. These practices can temporarily reduce your blood pressure.

High blood pressure isn't a problem that you can treat and then ignore. It's a condition you need to manage for the rest of your life. To keep your blood pressure under control:

- Take your medications properly. If side effects or costs pose problems, don't stop taking your medications. Ask your doctor about other options.
- Schedule regular doctor visits. It takes a team effort to treat high blood pressure successfully. Your doctor can't do it alone, and neither can you. Work with your doctor to bring your blood pressure to a safe level — and keep it there.
- Adopt healthy habits. Eat healthy foods, lose excess weight and get regular physical activity. Limit alcohol. If you smoke, quit.
- Manage stress. Say no to extra tasks, release negative thoughts, maintain good relationships, and remain patient and optimistic.

Sticking to lifestyle changes can be difficult — especially if you don't see or feel any symptoms of high blood pressure. If you need motivation, remember the risks associated with uncontrolled high blood pressure. It may help to enlist the support of your family and friends as well.

Prediabetes – A Wake-Up Call

You may be at risk for diabetic complications even if you don't have diabetes — if you are among the 79 million Americans estimated to have prediabetes.

“Prediabetes disposes you to increased risk of developing diabetes and implies that your risk for heart attack is already increased. It should be a wake-up call for adopting a healthier lifestyle,” says Robert Zimmerman, MD, Director of the Diabetes Center in Cleveland Clinic's Department of Endocrinology, Diabetes and Metabolism.



Diabetes increases the risk for heart attack. Yet many heart attacks occur when blood glucose levels are not quite that high — a condition the American Diabetes Association calls prediabetes.

In diabetes, the risk for cardiovascular disease is two to four times higher than normal. In prediabetes, that risk is 1.5 times higher than normal. Without preventive measures, prediabetes may become type 2 diabetes in three to 10 years.

Doctors use the same tests to diagnose diabetes and prediabetes. Diabetes is diagnosed when:

- Hemoglobin A1c levels are 6.5 percent or more
- Fasting blood sugar is 126 or more, or a glucose level two hours after eating is 200 or more

Prediabetes is diagnosed when:

- Hemoglobin A1c levels are 5.7 to 6.4 percent
- Fasting blood sugar is 100-125 (called impaired fasting glucose)
- Two-hour glucose is 140-199 after a glucose challenge (called impaired glucose tolerance)

Glucose is sticky and adheres to red blood cells. Type 2 diabetes causes glucose to build up in the bloodstream. Over time, impaired circulation of the blood to organs and tissues can result in heart attack, stroke, kidney failure, blindness and amputation.

The incidence of type 2 diabetes and prediabetes is rising along with the incidence of obesity, but genetic and environmental factors also come into play.

“There is a high incidence of type 2 diabetes in patients whose parents have the disease,” says Dr. Zimmerman. “Yet people with a genetic tendency to develop diabetes if they become overweight may not get diabetes if they maintain a normal body weight.”

Whether you have prediabetes or diabetes, the higher your blood glucose level, the greater the risk of complications. There are two paths to lowering risk: lifestyle change and medication.

A 2002 National Institutes of Health study documented superior results from diet and exercise. Eating a low-carbohydrate, low-fat diet and getting 35 minutes of intense exercise five days per week reduced the rate of diabetes by 50 percent. It also led to a 10 to 12-pound weight loss.

Taking a pill to lower your blood sugar may seem more appealing, but the first-line antidiabetic drug metformin lowered the rate of diabetes by just 30 percent.

“We now know that people with prediabetes can delay or prevent the onset of type 2 diabetes through lifestyle changes. In my opinion, if lifestyle interventions make you healthier, it’s the way to go,” says Dr. Zimmerman.

“Medications have potential side effects and are less effective. Exercise may help reduce weight, blood sugars and blood pressure.” If diet and exercise are ineffective, Dr. Zimmerman then recommends a trial of metformin.

5 tips for taking control of Diabetes Prevention

When it comes to type 2 diabetes — the most common type — prevention is a big deal. It's especially important to make diabetes prevention a priority if you're at increased risk, for example, if you're overweight or have a family history of the diabetes.

Diabetes prevention is as easy as making a few simple lifestyle changes that may help you avoid the serious health complications of diabetes down the road, such as nerve, kidney and heart damage.



Tip 1: Get more physical activity

There are many benefits to regular physical activity. Exercise can help you lose weight, lower your blood sugar, and boosts your sensitivity to insulin — which helps keep your blood sugar within a normal range. Research shows that both aerobic exercise and resistance training can help control diabetes, but the greatest benefit comes from a fitness program that includes both.



Tip 2: Get plenty of fiber

It's rough, it's tough — and it may help you reduce your risk of diabetes by improving your blood sugar control; lower your risk of heart disease, and promote weight loss by helping you feel full. Foods high in fiber include fruits, vegetables, beans, whole grains, nuts and seeds.



Tip 3: Go for whole grains

Although it's not clear why, whole grains may reduce your risk of diabetes and help maintain blood sugar levels. Try to make at least half your grains whole grains. Look for the word “whole” on the package and among the first few items in the ingredient list.



Tip 4: Lose extra weight

If you're overweight, diabetes prevention may hinge on weight loss. Every pound you lose can improve your health. And you may be surprised by how much. In one study, overweight adults reduced their diabetes risk by 16 percent for every kilogram (2.2 pounds) of weight lost. Also, those who lost a modest amount of weight — at least 5 to 10 percent of initial body weight — and exercised regularly reduced the risk of developing diabetes by almost 60 percent over three years.



Tip 5: Skip fad diets and make healthier choices
Low-carb diets, the glycemic index diet or other fad diets may help you lose weight at first, but their effectiveness at preventing diabetes isn't known nor are their long-term effects. And by excluding or strictly limiting a particular food group, you may be giving up essential nutrients. Instead, think variety and portion control as part of an overall healthy-eating plan.

When to see your doctor

If you're older than age 45 and your weight is normal, ask your doctor if diabetes testing is appropriate for you. The American Diabetes Association recommends blood glucose screening if:

- You're age 45 or older and overweight
- You're younger than age 45 and overweight with one or more additional risk factors for type 2 diabetes — such as a sedentary lifestyle or a family history of diabetes

Feature: 8 Tips for Lowering Your Cholesterol

We all want to be heart-healthy, and ensuring healthy levels of cholesterol — a fat, or lipid, carried through the bloodstream — is the first step.

Low-density lipoprotein or LDL (bad) cholesterol contributes to plaque buildup along with triglycerides, another lipid. High-density lipoprotein or HDL (good) cholesterol discourages plaque buildup. Plaque can threaten the blood supply to the heart, brain, legs or kidneys, leading to heart attack, stroke or even death.

The preventive cardiology team in Cleveland Clinic's Heart & Vascular Institute is dedicated to making sure these medical emergencies never occur.

Registered dietitian Julia Zumpano, RD, LD, of the Weigh to a Healthier Heart Program, and exercise physiologist Michael Crawford, MS, Cardiac Rehabilitation Supervisor, share these tips: 4 ways to lower cholesterol through diet

1. Cut back on animal fats. Forgo fatty meats, such as chicken or turkey with the skin; processed meats, such as bologna, salami and pepperoni; and fatty red meats, such as ribs and prime cuts of beef, pork, veal or lamb. Also avoid full-fat dairy products such as cheese, cream, sour cream, cream cheese and butter. These foods contain saturated fat as well as cholesterol — both associated with higher blood cholesterol and plaque buildup.
2. Make friends with fiber. Specifically, get friendly with foods high in soluble fiber. In the gut, soluble fiber can bind to bile (which is made up of cholesterol) and remove it. Look for soluble fiber in oats, flaxseed, barley, dried beans and legumes, fruits and root vegetables, as well as some whole-grain cereals, cereal bars and pastas.
3. Go veggie. Choose at least one meatless meal per week. Substitute beans, tofu or nuts for red meat or poultry in a bean burrito or a tofu stir-fry to decrease your saturated fat intake

and increase your fiber intake. Shoot for one meatless meal — breakfast, lunch or dinner — per day!

4. Be a loser. If you're overweight or obese, shed the extra pounds. Weight loss helps lower bad (LDL) cholesterol. Even a small-to-moderate weight loss — just 10 to 20 pounds — can make an impact.

4 ways to lower cholesterol through exercise

1. Move more. Work up to 90 minutes of cardiovascular exercise per day for optimum heart health and weight loss. Cardiovascular exercise means any activity that uses large muscles repetitively and increases the heart rate. Think walking, cycling, rowing, using the elliptical and swimming. If you find 90 minutes daunting, start with 30 minutes and work your way up a little at a time. For some people, 45 to 60 minutes of cardiovascular exercise is enough.
2. Pick the right tempo. Aim for a moderate level of exercise. You'll know you've reached it when you are able to carry on a conversation when you exercise, but can't sing. Higher-intensity (more difficult) exercise is better at raising good (HDL) cholesterol. However, it also increases your risk of injuries, making it harder to continue exercising. Moderate intensity is preferable.
3. Make a habit of it. Consistency is the key. Work out regularly and you'll watch your triglyceride levels drop. Triglycerides are the only lipid in the cholesterol profile used for energy. They decrease an average of 24 percent with regular cardiovascular exercise.
4. Change it up. Variety is the spice of life, so try different exercises to stay motivated, to challenge other muscle groups, to reduce the risk of overuse injuries and to enjoy your physical activity.

Could Daily Aspirin Help Prevent Cancer?

New studies suggest that daily aspirin use has the potential to prevent several cancers, and may even improve survival in individuals who do get cancer. These studies culminate more than three decades of research. In the 1980's, epidemiological studies began to show that individuals who used aspirin regularly had a lower risk of cancer, particularly colon and rectal cancer. There were similar findings for other GI cancers (stomach, esophagus). To gain such effects, continued aspirin use seemed required - once stopped, the cancer risk returned to the previous levels. These studies also suggested that the "aspirin effect" was far from immediate. In fact, a meaningful cancer preventive effect was not apparent until about 10 or more years after starting the drug.

The epidemiological data are mixed regarding cancers outside the GI tract, such as those in the lung, prostate and breast. But some studies found that individuals who took aspirin long enough had decreased risk of these cancers too.

Findings like these, though very exciting, couldn't prove that aspirin really prevented cancer. For one thing, people who take aspirin regularly differ from those who don't in ways that are related to cancer risk. Statistical adjustments are used to deal with that, but evidence from randomized studies – real experiments – are needed to be sure that the preventive effects are not due to other characteristics of people taking aspirin.

Randomized trials studying prevention of colorectal adenomas - benign precursors of most colorectal cancers – confirmed the protective effect of aspirin, but the medical community naturally hoped for trials studying cancer itself. Unfortunately, it would be difficult now to start such a trial. In order to have enough cancers to study, such a trial would have to include tens of thousands of people and last 15 or more years, in order to incorporate the latent period that the epidemiological studies suggest.

Getting long-term follow-up cancer data from the cardiovascular trials was a clever and very welcome development. Data showed that as in the epidemiological studies, aspirin reduced the risk of colorectal cancer after a latent period of about 7-8 years. Even taking into account the “waiting period” during which aspirin had no effect, aspirin prevented about 25 percent of the colorectal cancers. Also in agreement with the epidemiology, there was a reduction in mortality from GI cancers: over 20 years, deaths from these cancers were reduced by about a third in subjects given aspirin.

There were also reductions in death from some other solid cancers (in particular lung cancer), but no apparent benefit in hematological cancers (leukemia, lymphoma, etc.). Longer aspirin use conferred larger benefits, and there were also indications that over the short term, aspirin use reduced the risk of metastatic cancer and cancer death. In some analyses, aspirin even reduced overall mortality.

The trials did not include long-term follow-up of many women, and there wasn't much data about many specific types of cancer. Also, aspirin use after the end of the trials wasn't recorded. Consequently, we can't use the studies to investigate what happens after aspirin is stopped. Nonetheless, the picture regarding aspirin and cancer is now very exciting. The drug clearly reduces the incidence and mortality from the important GI cancers, and may similarly affect other cancers.

However, just because aspirin may be effective in preventing cancer doesn't mean it necessarily should be used. Aspirin is a real drug, with definite toxicity – in particular GI bleeds and hemorrhagic stroke. This is a particular worry as many of the benefits regarding cancer prevention are delayed for several years - while adverse effects start immediately. As for any preventive intervention, the benefits of aspirin need to be balanced against these risks. That hasn't yet been done in an analysis that incorporates the new trial data. However, it is looking more and more like aspirin will prove to be a winner.

Skin Cancer

There are three major types of skin cancer — basal cell carcinoma, squamous cell carcinoma and melanoma.

Skin cancer develops primarily on areas of sun-exposed skin, but it can also form on areas that rarely see the light of day. It affects people of all skin tones, including those with darker complexions. When melanoma occurs in those with dark skin tones, it's more likely to occur in areas not normally considered to be sun-exposed.

Basal cell carcinoma usually occurs in sun-exposed areas of your body, such as your face, ears or scalp. Basal cell carcinoma may appear as a pearly or waxy bump or a flat, flesh-colored or brown scar-like lesion.

Most often, squamous cell carcinoma occurs on sun-exposed areas of your body, such as face, lips, ears and hands and may appear as a firm, red nodule or a flat lesion with a scaly, crusted surface.

Melanoma can develop anywhere on your body, in otherwise normal skin or in an existing mole that becomes cancerous. It most often appears on the trunk, head or neck of affected men. In women, this type of cancer most often develops on the lower legs. Melanoma can occur on skin that hasn't been exposed to the sun. Melanoma can affect people of any skin tone. In people with darker skin tones, melanoma tends to occur on the palms or soles, or under the fingernails or toenails. Signs include:

- A large brownish spot with darker speckles
- A mole that changes in color, size or feel or that bleeds
- A small lesion with an irregular border and portions that appear red, white, blue or blue-black
- Dark lesions on your palms, soles, fingertips or toes, or on mucous membranes lining your mouth, nose, vagina or anus

Other, less common types of skin cancer include:

- Kaposi sarcoma, a rare form that develops in the skin's blood

vessels and causes red or purple patches on the skin or mucous membranes. It mainly occurs in people with weakened immune systems, such as people with AIDS, and in people taking medications that suppress their natural immunity, such as people who've undergone organ transplants. Kaposi sarcoma can also occur in older adults of Mediterranean heritage.

- Merkel cell carcinoma causes firm, shiny nodules that occur on or just beneath the skin and in hair follicles. It is usually found on sun-exposed areas on the head, neck, arms and legs.
- Sebaceous gland carcinoma is an uncommon and aggressive cancer that originates in the oil glands in the skin. Sebaceous gland carcinomas, which usually appear as hard, painless nodules, can develop anywhere, but most occur on the eyelid, where they're frequently mistaken for other eyelid problems.

Skin cancer begins in your skin's top layer — the epidermis. The epidermis is a thin layer that provides a protective cover of skin cells that your body continually sheds. The epidermis contains three main types of cells:

- Squamous cells lie just below the outer surface and function as the skin's inner lining.
- Basal cells, which produce new skin cells, sit beneath the squamous cells.
- Melanocytes — which produce melanin, the pigment that gives skin its normal color — are located in the lower part of your epidermis. Melanocytes produce more melanin when you're in the sun to help protect the deeper layers of your skin. Extra melanin produces the darker color of tanned skin.

Much of the damage to DNA in skin cells results from ultraviolet (UV) radiation found in sunlight and in commercial tanning lamps and tanning beds. But sun exposure doesn't explain skin cancers that develop on skin not ordinarily exposed to sunlight. This indicates that other factors may contribute to your risk of skin cancer, such as being exposed to toxic substances or having a condition that weakens your immune system.

Factors that may increase your risk of skin cancer include:

- Fair skin. If you have blond or red hair and light-colored eyes, and you freckle or sunburn easily, you're much more likely to develop skin cancer than is a person with darker skin.
- A history of sunburns. Having multiple blistering sunburns as a child or teenager increases your risk of developing skin cancer as an adult. Sunburns in adulthood also are a risk factor.
- Excessive sun exposure. Anyone who spends considerable time in the sun may develop skin cancer, especially if the skin isn't protected by sunscreen or clothing. Tanning, including exposure to tanning lamps and beds, also puts you at risk.
- Sunny or high-altitude climates. Living in sunny, warm climates exposes you to more sunlight. Living at higher elevations, where the sunlight is strongest, also exposes you to more radiation.
- Moles. If you have a history of abnormal moles, watch them regularly for changes.
- Precancerous skin lesions. These growths typically appear as rough, scaly patches that range in color from brown to dark pink. They're most common on the face, lower arms and hands of fair-skinned people whose skin has been sun damaged.
- A family history of skin cancer.
- A personal history of skin cancer. If you developed skin cancer once, you're at risk of developing it again.
- A weakened immune system. This includes people living with HIV/AIDS or leukemia and those taking immunosuppressant drugs after an organ transplant.
- Exposure to certain substances, such as arsenic.
- Increasing age. The damage that occurs during childhood or adolescence may not become apparent until middle age. Still, skin cancer isn't limited to older people and can occur at any age.

Make an appointment with your family doctor or a general practitioner if you notice any unusual skin changes that worry you. In some cases, you may be referred to a doctor who specializes in skin diseases and conditions (dermatologist). To diagnose skin cancer, your doctor may:

- Examine your skin to determine whether your skin changes are

likely to be skin cancer.

- Remove a sample of suspicious skin for testing (skin biopsy). A biopsy can determine whether you have skin cancer and, if so, what type of skin cancer you have.

If your doctor determines you have skin cancer, he or she may recommend additional tests to determine the extent, or stage, of the skin cancer. Because superficial skin cancers such as basal or squamous cell carcinoma rarely spread, a biopsy often is the only test needed to determine the cancer stage. But if you have a large growth or one that's existed for some time, your doctor may recommend further tests to determine the extent of the cancer.

Skin cancer is generally divided into two stages:

- Local. In this stage, cancer affects only the skin.
- Metastatic. At this point, cancer has spread beyond the skin.

Treatment for skin cancer and the precancerous skin lesions known as actinic keratoses varies, depending on the size, type, depth and location of the lesions. Small skin cancers limited to the surface of the skin may not require treatment beyond an initial skin biopsy that removes the entire growth.

If additional treatment is needed, options may include:

- Freezing. Your doctor may destroy actinic keratoses and some small, early skin cancers by freezing them with liquid nitrogen (cryosurgery). The dead tissue sloughs off when it thaws.
- Excisional surgery. This type of treatment may be appropriate for any type of skin cancer. Your doctor cuts out (excises) the cancerous tissue and a surrounding margin of healthy skin. A wide excision — removing extra normal skin around the tumor — may be recommended in some cases.
- Laser therapy. A precise, intense beam of light vaporizes growths, generally with little damage to surrounding tissue and with minimal bleeding, swelling and scarring. A doctor may use this therapy to treat superficial skin cancers.
- Mohs surgery. This procedure is for larger, recurring or difficult-to-treat skin cancers, which may include both basal and

squamous cell carcinomas. Your doctor removes the skin growth layer by layer, examining each layer under the microscope, until no abnormal cells remain. This procedure allows cancerous cells to be removed without taking an excessive amount of surrounding healthy skin.

- **Curettage and electrodesiccation.** After removing most of a growth, your doctor scrapes away layers of cancer cells using a circular blade (curet). An electric needle destroys any remaining cancer cells. This simple, quick procedure is common in treating small or thin basal cell cancers.
- **Radiation therapy.** Radiation may be used in situations when surgery isn't an option.
- **Chemotherapy.** In chemotherapy, drugs are used to kill cancer cells. For cancers limited to the top layer of skin, creams or lotions containing anti-cancer agents may be applied directly to the skin. Topical drugs can cause severe inflammation and leave scars. Systemic chemotherapy can be used to treat skin cancers that have spread to other parts of the body.
- **Photodynamic therapy (PDT).** This treatment destroys skin cancer cells with a combination of laser light and drugs that makes cancer cells sensitive to light. PDT makes your skin sensitive to light, so you will need to avoid direct sunlight for at least six weeks after treatment.
- **Biological therapy.** Biological treatments stimulate your immune system in order to kill cancer cells. Biological therapy medications used to treat certain skin cancer include interferon and interleukin-2.

Most skin cancers are preventable. To protect yourself, follow these skin cancer prevention tips:

- **Avoid the sun during the middle of the day.** For many people in North America, the sun's rays are strongest between about 10 a.m. and 4 p.m. Schedule outdoor activities for other times of the day, even in winter or when the sky is cloudy. You absorb UV radiation year-round, and clouds offer little protection from damaging rays. Remember, sunburns and suntans cause skin damage that can increase your risk of developing skin cancer. Sun exposure accumulated over time also may cause skin cancer.

- Wear sunscreen year-round. Sunscreens don't filter out all harmful UV radiation, especially the radiation that can lead to melanoma. But they play a major role in an overall sun protection program. Choose a broad-spectrum sunscreen that has a sun protection factor (SPF) of at least 15. Use a generous amount of sunscreen on all exposed skin, including your lips, the tips of your ears, and the backs of your hands and neck.
- Wear protective clothing. Sunscreens don't provide complete protection from UV rays. So cover your skin with dark, tightly woven clothing that covers your arms and legs, and a broad-brimmed hat, which provides more protection than a baseball cap or visor does. Some companies also sell photoprotective clothing. A dermatologist can recommend an appropriate brand. Don't forget sunglasses. Look for those that block both types of UV radiation — UVA and UVB rays.
- Avoid tanning beds. Tanning beds emit UV rays and can increase your risk of skin cancer.
- Be aware of sun-sensitizing medications. Some common prescription and over-the-counter drugs — including antibiotics; certain cholesterol, high blood pressure and diabetes medications; and nonsteroidal anti-inflammatory drugs such as ibuprofen (Advil, Motrin, others) — can make your skin more sensitive to sunlight. Ask your doctor or pharmacist about the side effects of any medications you take. If they increase your sensitivity to sunlight, take extra precautions to stay out of the sun in order to protect your skin.
- Check your skin regularly and report changes to your doctor. Examine your skin often for new skin growths or changes in existing moles, freckles, bumps and birthmarks. With the help of mirrors, check your face, neck, ears and scalp. Examine your chest and trunk, and the tops and undersides of your arms and hands. Examine both the front and back of your legs, and your feet, including the soles and the spaces between your toes. Also check your genital area and between your buttocks.

Melanoma

Melanoma: Incidence rising in people under 40

With the recent release of a BWH study findings that show that melanoma risk is now six times higher in people under the age of 40 (view a FOX 25 interview with the lead researcher) and next month's Melanoma Monday (the first Monday in May, designated by the American Academy of Dermatology as a way to raise awareness of the potentially fatal skin cancer), it's a good time to assess your risk for the disease.

Screening for melanoma is as important as other cancer screenings you've heard about. This form of skin cancer behaves much differently from other types of skin cancers such as basal cell and squamous cell carcinomas. It is important for you discuss with your doctor how often you should have full-body skin checks.

In advanced stages, melanoma is one of the most common forms of cancer to spread to other areas and organs, resulting in poor survival. Melanoma can form in locations that you might not suspect – on the scalp, palms, soles of the feet, nail beds, and can form in the eye, mouth, digestive or urinary tracts, genital areas, and sometimes even the brain.

Treatment for melanoma requires multispecialty care. At the Center for Melanoma Oncology, medical oncologists, dermatologic oncologists, and radiations oncologists at Dana-Farber/Brigham and Women's Cancer Center collaborate to provide advanced care. The Center offers the latest clinical trials for melanoma, and, under the direction of Stephen Hodi, MD, a research team conducted the study of the first drug to be approved by the Food and Drug Administration (FDA) for melanoma in 13 years.

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Cancer prevention: 7 tips to reduce your risk

1. Don't use tobacco

Using any type of tobacco puts you on a collision course with cancer. Smoking has been linked to various types of cancer — including cancer of the lung, bladder, cervix and kidney. And chewing tobacco has been linked to cancer of the oral cavity and pancreas. Even if you don't use tobacco, exposure to secondhand smoke might increase your risk of lung cancer.

2. Eat a healthy diet

Although making healthy selections at the grocery store and at mealtime can't guarantee cancer prevention, it might help reduce your risk. Consider these guidelines:

- Eat plenty of fruits and vegetables and other foods from plant sources — such as whole grains and beans.
- Eat lighter and leaner by choosing fewer high-fat foods, particularly those from animal sources.
- If you choose to drink alcohol, do so only in moderation. The risk of various types of cancer increases with the amount you drink and the length of time you've been drinking regularly.

3. Maintain a healthy weight and be physically active

Maintaining a healthy weight might lower the risk of various types of cancer, including cancer of the breast, prostate, lung, colon and kidney. Physical activity counts, too. In addition to helping you control your weight, physical activity on its own might lower the risk of breast cancer and colon cancer.

Adults who participate in any amount of physical activity gain some health benefits. But for substantial health benefits, strive to get at least 150 minutes a week of moderate aerobic activity or 75 minutes a week of vigorous aerobic physical activity. You can also do a combination of moderate and vigorous activity. As a general goal, include at least 30 minutes of physical activity in your daily routine — and if you can do more, even better.

4. Protect yourself from the sun

Skin cancer is one of the most common kinds of cancer — and one of the most preventable. Try these tips:

- Stay out of the sun between 10 a.m. and 4 p.m., when the sun's rays are strongest.
- When you're outdoors, stay in the shade as much as possible. Sunglasses and a broad-rimmed hat help, too.
- Wear tightly woven, loosefitting clothing that covers as much of your skin as possible. Opt for bright or dark colors, which reflect more ultraviolet radiation than pastels or bleached cotton.
- Use generous amounts of sunscreen and reapply often.
- Avoid tanning beds and sunlamps. These are just as damaging as natural sunlight.
- Get immunized

Cancer prevention includes protection from certain viral infections. Talk to your doctor about immunization against:

- **Hepatitis B**, which can increase the risk of developing liver cancer. The hepatitis B vaccine is recommended for certain high-risk adults — such as adults who are sexually active but not in a mutually monogamous relationship, people with sexually transmitted infections, intravenous drug users, men who have sex with men, and health care or public safety workers who might be exposed to infected blood or body fluids.
- **Human papillomavirus (HPV)**, a sexually transmitted virus that can lead to cervical and other genital cancers as well as squamous cell cancers of the head and neck. The HPV vaccine is available to both men and women age 26 or younger who didn't have the vaccine as adolescents.

6. Avoid risky behaviors

Another effective cancer prevention tactic is to avoid risky behaviors that can lead to infections that, in turn, might increase the risk of cancer. For example:

- Practice safe sex. Limit your number of sexual partners, and use a condom when you have sex. The more sexual partners you have in your lifetime, the more likely you are to contract a sexually

transmitted infection — such as HIV or HPV. People who have HIV or AIDS have a higher risk of cancer of the anus, liver and lung. HPV is most often associated with cervical cancer, but it might also increase the risk of cancer of the anus, penis, throat, vulva and vagina.

- Don't share needles. Sharing needles with an infected drug user can lead to HIV, as well as hepatitis B and hepatitis C — which can increase the risk of liver cancer. If you're concerned about drug abuse or addiction, seek professional help.

7. Get regular medical care

Regular self-exams and screenings for various types of cancers — such as cancer of the skin, colon, prostate, cervix and breast — can increase your chances of discovering cancer early, when treatment is most likely to be successful. Ask your doctor about the best cancer screening schedule for you.

Prostate testing

Prostate cancer is the most common nonskin cancer in men and the leading cause of cancer-related death. Early detection may be an important tool in getting appropriate and timely treatment.

The PSA test is used primarily to screen for prostate cancer. A PSA test measures the amount of prostate-specific antigen (PSA) in your blood. PSA is a protein produced in the prostate, a small gland that sits below a man's bladder. PSA is mostly found in semen, which also is produced in the prostate. Small amounts of PSA ordinarily circulate in the blood.

Men with prostate cancer may have elevated levels of PSA. But many noncancerous conditions can also increase a man's PSA level. Although the PSA test can detect high levels of PSA in the blood, the test doesn't provide precise diagnostic information about the condition of the prostate.

The PSA test is only one tool used to screen for early signs of prostate cancer. Another common screening test, usually done in addition to a PSA test, is a digital rectal exam. In this test, your doctor inserts a lubricated, gloved finger into your rectum to reach the prostate. By feeling or pressing on the prostate, the doctor may be able to judge whether it has abnormal lumps or hard areas.

Neither the PSA test nor the digital rectal exam provides enough information for your doctor to diagnose prostate cancer. Abnormal test results may lead your doctor to order a prostate biopsy. During this procedure, samples of tissue are removed for laboratory examination. A diagnosis of cancer is based on the biopsy results.

For men who have already been diagnosed with prostate cancer, the PSA test may be used to:

1. Help decide if and when to begin treatment
2. Judge the effectiveness of a treatment
3. Check for recurring cancer

A PSA test is done by examining a blood sample in a laboratory. A nurse or medical technician will use a needle to draw blood from a vein, most likely in your arm.

You might think that any test indicating whether you might have cancer would be beneficial. Indeed, a PSA test can often detect prostate cancer at an early stage. But to judge the benefit of the test, it's important to know if early detection and early treatment will improve treatment outcomes and decrease the number of deaths from prostate cancer. Most experts argue that there isn't enough evidence to answer this question.

A key issue is the typical course of prostate cancer. If all cases of prostate cancer progressed rapidly and caused poor health and death, then early detection clearly would be a good thing. However, prostate cancer usually progresses slowly over many years, and the majority of cases are diagnosed in men older than age 65. Therefore, a man may have prostate cancer that never causes symptoms or becomes a medical problem during his lifetime. The limitations of the PSA test make it difficult to judge its benefits and risks. These limitations include:

1. PSA-raising factors. Besides cancer, other conditions that can raise PSA levels include an enlarged prostate and an inflamed or infected prostate. Also, PSA levels normally increase with age.
2. PSA-lowering factors. Some medications and dietary supplements taken for prostate health can lower PSA levels.
3. Misleading results. The test doesn't always provide an accurate result. A positive result on a PSA test — a PSA level high enough to suggest you may have cancer — doesn't necessarily mean you have cancer. And some men with negative results are later diagnosed with prostate cancer.
4. Overdiagnosis. Studies have estimated that between 29 and 44 percent of men with prostate cancer detected by PSA tests have tumors that wouldn't result in symptoms during their lifetimes. These symptom-free tumors are considered overdiagnoses — identification of cancer not likely to cause poor health or to present a risk to the person's life.

The potential risks of the PSA test relate to the choices you make based on the test results, such as the decision to undergo further testing and treatment for prostate cancer. The risks include:

1. Biopsy issues. A biopsy is an expensive, invasive procedure that carries its own risks, including pain, bleeding and infection.
2. Psychological effects. False-positive test results — high PSA levels but no cancer found with biopsy — can produce a significant amount of anxiety or distress.

A number of major professional organizations and government agencies have weighed in on the benefits and risks of PSA testing. The American Cancer Society, the American Urological Association, the American College of Preventive Medicine, the Centers for Disease Control and Prevention, and the U.S. Preventive Services Task Force all recognize the controversy surrounding screening with the PSA test and the lack of firm evidence that screening can prevent deaths from prostate cancer. Other points of agreement include:

1. Screening needs to be an individualized decision. Doctors discuss the benefits and risks of PSA testing with men at a certain age or in high-risk groups to help them make their own decisions about screening, based on age, risk factors, life expectancy and personal preferences.
2. Men age 75 and older or those who aren't expected to live more than 10 years generally don't need to be screened. The American Urological Association advises that this decision should be made on an individual basis.
3. Men at high risk — those with a family history of prostate cancer and African-American men — should discuss screening at an earlier age.

The American Cancer Society and the American College of Preventive Medicine recommend that doctors provide information about prostate cancer screening to men starting at age 50. They also suggest that men in high-risk groups could benefit from this information at age 45 or 40, depending on their level of risk.

The U.S. Preventive Services Task Force recommends against PSA-based screening for men who do not have symptoms that are highly suspicious for prostate cancer. The USPSTF states that PSA testing in healthy men, regardless of age, offers no net benefit or that the harms outweigh the benefits.

The American Urological Association recommends that men talk to their doctors about getting a baseline PSA test at age 40. This could help them determine when to screen in the future and to understand possible future risk and test results.

Results of PSA tests are reported as nanograms of PSA per milliliter of blood (ng/mL). There's no specific cutoff point between a normal and abnormal PSA level. Your doctor may use other ways of interpreting PSA results before making decisions about ordering a biopsy to test for cancerous tissue in order to improve the accuracy of the PSA test as a screening tool.

As with the standard PSA test, there's little clinical evidence that these variations on the PSA screening test improve treatment outcomes or decrease the number of deaths. Researchers continue investigating these strategies to determine whether they provide a measurable benefit. Variations of the PSA test include:

1. PSA velocity. PSA velocity is the change in PSA levels over time. A rapid rise in PSA may indicate the presence of cancer or an aggressive form of cancer.
2. Percentage of free PSA. PSA circulates in the blood in two forms — either attached to certain blood proteins or unattached (free). If you have a high PSA level but a low percentage of free PSA, it may be more likely that you have prostate cancer.

Before getting a PSA test, talk to your doctor about the benefits and risks. If you decide that a PSA test is right for you, ask your doctor:

- When you will discuss the results
- What kinds of recommendations he or she might make if the results are positive
- How often you should repeat the test if the results are negative

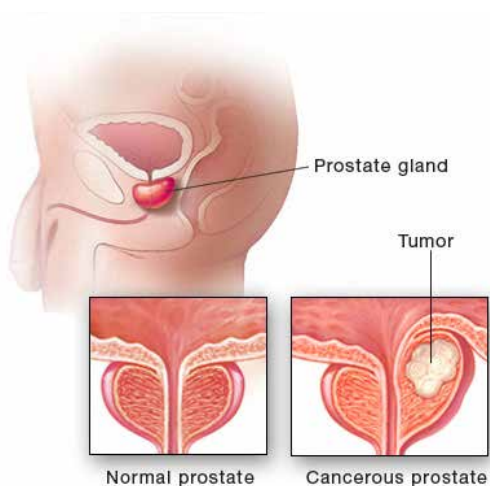
Should you get a prostate cancer screening?

While one research study shows that the benefit of prostate cancer screening is significant, another study finds little, if any, benefit. And while one expert defends the prostate-specific antigen (PSA) screening test, another just as passionately dismisses it. With studies, experts, and news stories disseminating such widely varying viewpoints, it's easy to understand why men would feel confused – and wonder how to arrive at an informed decision.

Start by asking an expert.

Dr. Anthony D'Amico, Professor and Chief of Genitourinary Radiation Oncology at Brigham and Women's Hospital and Chief of the Prostate Cancer Radiation Oncology Service at Dana-Farber/Brigham and Women's Cancer Center, has been treating prostate cancer for more

than 20 years and continues to be a firm advocate of prostate cancer screening, particularly for younger men. "PSA screening is effective in decreasing cancer death," says D'Amico. "It's a critical tool for having an informed conversation with a man about whether he needs treatment or not."



Dr. D'Amico is concerned that men aren't getting the whole picture, and he points to the U.S. Preventive Services Task Force's (USPSTF) recent recommendation against routine PSA tests for healthy men as an example of how public opinion can be swayed according to who's telling the story. He, along with several other physicians, expressed their concern with the USPSTF recommendation in a recently published rebuttal, "What the U.S. Preventive Services Task Force Missed in Its Prostate Cancer Screening Recommendation."

D'Amico, supported by the American Cancer Society, believes that the task force recommendation fails to adequately address why three recent major prostate cancer screening studies present vastly different findings and neglects the PSA's noteworthy benefit for younger men.

A Swedish study, which had the youngest (median age of 56) and presumably healthiest men, found that there was a 44% reduction in prostate cancer deaths among men who were routinely screened, as compared to those who were not. A European study, with a slightly older group (median of 60), found a 20% reduction in deaths among screened men, and a U.S. study, with the oldest group (median of 63), found virtually no benefit from screening.

D'Amico believes that there are several reasons to place more weight on the results of the Swedish and European studies over the U.S. study.

One is that because the PSA was widely available in the U.S. but not in Europe during the study periods, the U.S. study suffered from a considerable amount of contamination – meaning that 50% of the men who were supposed to be part of the unscreened control group had undergone PSA screening before the study – thereby diminishing the reliability of the study's results. The European and Swedish studies, however, had far less contamination.

Another key characteristic of the Swedish study is the comparative youth of its participants, as it's commonly accepted that younger men are likely to benefit more from early diagnosis than older men. One advantage to diagnosing a man with prostate cancer at a younger age is that he's less likely than an older man to die of another disease, and, thus, proceeding with prostate cancer treatment holds greater promise. Another distinct advantage is that it is much easier to detect prostate cancer in a younger man by using the PSA test, as his PSA level is less likely to be falsely elevated by the benign prostate enlargement that often occurs in older men.

D'Amico also cited the length of the Swedish study as another strong point – 14 years, versus 11 for the European study and 9 for the U.S. – as the number of men needed to be treated in order to save a life declines as the study goes longer. As it stands, the Swedish study found that it was only necessary to treat 12 men in order to save one life, whereas 48 men needed to be treated in order to save one life in the European study.

Despite the strength of the Swedish numbers, some experts are still concerned that routine PSA tests can lead to unnecessary treatment. D'Amico, however, believes that the benefits of PSA screening greatly outweigh the risks, particularly for young and/or healthy men at high risk, and that oncologists and urologists have the necessary tools to effectively limit unnecessary treatment. “We have the information that can help individualize whether a man with certain type of prostate cancer needs treatment or not,” explains D'Amico. And when treatment is recommended, he added, patients further benefit from therapies that are more effective and have less harmful side effects than what was available just a decade ago.

D'Amico is not only concerned that the USPSTF recommendation will dissuade men from getting the test, but will also limit access to the test for men who want it. “The USPSTF recommendation likely means that Medicare and other insurance plans will no longer cover the cost of PSA screening,” says D'Amico. “Therefore, only men who can afford to pay for the test will have the opportunity to benefit from it, which creates a health care disparity.”

“No one should be at increased risk for dying of prostate cancer,” asserts D'Amico. “To deny a man the opportunity to know whether he has prostate cancer and whether he needs treatment is just not in anybody's best interests”.

Living With Cancer - The Power of Friendship



Think back to the last time you spent time with a good friend or a group of friends. What are some of the feelings you experienced? Acceptance, love, joy, comfort, security and happiness are some of the feelings I hope you experience when you are with friends.

As friends, we share good times and bad together — that's the whole idea. Having someone you trust to talk with, to share your laughter and tears, and just be there for you, is what a friend may offer. Friendships may also have a positive effect on your health and wellbeing. It can:

1. Provide a boost of happiness and joy
2. Increase your sense of purpose and belonging
3. Reduce stress and anxiety
4. Improve your feelings of strength and self-esteem
5. Help you cope with trauma and loss
6. Decrease feelings of loneliness and isolation

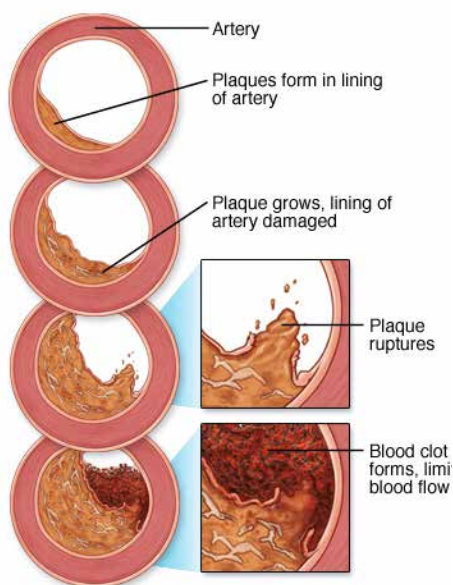
7. Encourage healthy habits, such as exercise, laughter, eating well

Research has shown that having friends around may help you deal with pain, stress and illness in a positive manner. While family connections are also vital, the connections we have with friends are different than the relationships we have with family. Maybe it's because we are able to share more of our fears and deepest feelings with friends — while we tend to guard these feelings with our family members. Having a close confidant that you can trust can be so important.

Nurture your friendships. Keep in close contact with those friends who support you in the best way possible. Don't worry if you've lost touch for a while — many times old friends will understand and support you even if a few months or years have passed. Investing in new friends and strengthening friendships may help you deal with stress and illness, and bring you better quality of life and a more positive outlook in return.

Coronary Artery Disease

Coronary artery disease develops when your coronary arteries — the major blood vessels that supply your heart with blood, oxygen and nutrients — become damaged or diseased. Cholesterol-containing deposits (plaque) on your arteries are usually to blame for coronary artery disease. When plaques build up, they narrow your coronary arteries, causing your heart to receive less blood. Eventually, the decreased blood flow may cause chest pain (angina), shortness of breath, or other coronary artery disease signs and symptoms. A complete blockage can cause a heart attack.



Symptoms

If your coronary arteries become narrowed, they can't supply enough oxygen-rich blood to your heart. At first, the decreased blood flow may not cause any symptoms. However, as the plaques continue to build up, you may develop symptoms including:

1. **Chest pain (angina).** You may feel pressure or tightness in your chest, as if someone were standing on your chest. The pain is usually triggered by physical or emotional stress. It typically goes away within minutes after stopping the stressful activity. In some people, especially women, this pain may be fleeting or sharp and noticed in the abdomen, back or arm.
2. **Shortness of breath.**
3. **Heart attack.** If a coronary artery becomes completely blocked, you may have a heart attack. The classic signs and symptoms of a heart attack include crushing pressure in your chest and pain in your shoulder or arm, sometimes with shortness of breath

and sweating. Women are somewhat more likely than men are to experience less typical signs and symptoms of a heart attack, including nausea and back or jaw pain.

If you have risk factors for coronary artery disease, talk to your doctor. He or she may want to test you for the condition, especially if you have signs or symptoms of narrowed arteries. Early diagnosis and treatment may stop progression of coronary artery disease and help prevent a heart attack.

Causes

Coronary artery disease is thought to begin with damage or injury to the inner layer of a coronary artery, sometimes as early as childhood. The damage may be caused by factors including:

1. Smoking
2. High blood pressure
3. High cholesterol
4. Diabetes
5. Radiation therapy to the chest, as used for certain types of cancer

Once the inner wall of an artery is damaged, fatty deposits (plaques) made of cholesterol and other cellular waste products tend to accumulate at the site of injury in a process called atherosclerosis. If the surface of these plaques breaks or ruptures, blood cells called platelets will clump at the site to try to repair the artery. This clump can block the artery, leading to a heart attack.

Risk factors for coronary artery disease include:

- **Age.** Simply getting older increases your risk of damaged and narrowed arteries.
- **Sex.** Men are generally at greater risk of coronary artery disease. However, the risk for women increases after menopause.
- A **family history** of heart disease is associated with a higher risk of coronary artery disease, especially if a close relative developed heart disease at an early age. Your risk is highest if your father or a brother was diagnosed with heart disease before age 55, or your mother or a sister developed it before age 65.
- **Smoking.** Nicotine constricts your blood vessels, and carbon

monoxide can damage their inner lining, making them more susceptible to atherosclerosis. The incidence of heart attack in women who smoke at least 20 cigarettes a day is six times that of women who've never smoked. For men who smoke, the incidence is triple that of nonsmokers.

- Uncontrolled **high blood pressure** can result in hardening and thickening of your arteries, narrowing the channel through which blood can flow.
- **High levels of cholesterol** in your blood can increase the risk of formation of plaques and atherosclerosis. High cholesterol can be caused by a high level of low-density lipoprotein (LDL). A low level of high-density lipoprotein (HDL) also can promote atherosclerosis.
- **Diabetes**
- **Obesity**
- **Physical inactivity**
- **High stress**

Risk factors often occur in clusters and may build on one another, such as obesity leading to diabetes and high blood pressure. When grouped together, certain risk factors put you at an ever greater risk of coronary artery disease.

Sometimes coronary disease develops without any classic risk factors. Researchers are studying other possible factors, including:

- **Sleep apnea.** Sudden drops in blood oxygen levels that occur during sleep apnea increase blood pressure and strain the cardiovascular system, possibly leading to coronary disease.
- **C-reactive protein** is a normal protein that appears in higher amounts when there's swelling somewhere in your body. High CRP levels may be a risk factor for heart disease. It's thought that as coronary arteries narrow, you'll have more CRP in your blood.
- **Homocysteine** is an amino acid your body uses to make protein and to build and maintain tissue. But high levels of homocysteine may increase your risk of coronary artery disease.
- **Fibrinogen** is a protein in your blood that plays a central role in blood clotting. But too much may increase clumping of platelets,

the type of blood cell largely responsible for clotting. That can cause a clot to form in an artery, leading to a heart attack or stroke. Fibrinogen may also be an indicator of the inflammation that accompanies atherosclerosis.

- **Lipoprotein (a)** forms when an LDL particle attaches to a specific protein. Lipoprotein (a) may disrupt your body's ability to dissolve blood clots.

Complications

Coronary artery disease can lead to:

- Chest pain (angina). When your coronary arteries narrow, your heart may not receive enough blood when demand is greatest — particularly during physical activity. This can cause chest pain (angina) or shortness of breath.
- Heart attack. If a cholesterol plaque ruptures and a blood clot forms, complete blockage of your heart artery may trigger a heart attack. The lack of blood flow to your heart may damage to your heart muscle. The amount of damage depends in part on how quickly you receive treatment.
- Heart failure. If some areas of your heart are chronically deprived of oxygen and nutrients because of reduced blood flow, or if your heart has been damaged by a heart attack, your heart may become too weak to pump enough blood to meet your body's needs. This condition is known as heart failure.
- Abnormal heart rhythm (arrhythmia). Inadequate blood supply to the heart or damage to heart tissue can interfere with your heart's electrical impulses, causing abnormal heart rhythms.

Tests and diagnosis

An electrocardiogram (ECG) records electrical signals as they travel through your heart. An ECG can often reveal evidence of a previous heart attack or one that's in progress. In other cases, Holter monitoring may be recommended. With this type of ECG, you wear a portable monitor for 24 hours as you go about your normal activities. Certain abnormalities may indicate inadequate blood flow to your heart. The doctor will ask questions about your medical history, do a physical exam and order routine blood tests. He or she

may suggest one or more diagnostic tests as well, including:

- **An echocardiogram** uses sound waves to produce images of your heart. Your doctor can determine whether all parts of the heart wall are contributing normally to your heart's pumping activity. Parts that move weakly may have been damaged during a heart attack or be receiving too little oxygen. This may indicate coronary artery disease or various other conditions.
- **Stress test.** If your symptoms occur most often during exercise, your doctor may ask you to walk on a treadmill or ride a stationary bike during an ECG. In some cases, medication to stimulate your heart may be used instead of exercise. Another stress test known as a nuclear stress test helps measure blood flow to your heart muscle at rest and during stress. It's similar to a routine exercise stress test but with images in addition to an ECG. Trace amounts of radioactive material are injected into your bloodstream. Special cameras can detect areas in your heart that receive less blood flow.
- **Cardiac catheterization or angiogram.** To view blood flow through your heart, your doctor may inject a special dye into your arteries (intravenously). The dye is injected into the arteries of the heart through a catheter that is threaded through an artery to the arteries in the heart. This procedure is called cardiac catheterization. The dye outlines narrow spots and blockages on the X-ray images.
- **Computerized tomography (CT) scans** can help your doctor visualize your arteries. EBCT, also called an ultrafast CT scan, can detect calcium within fatty deposits that narrow coronary arteries. If a substantial amount of calcium is discovered, coronary artery disease may be likely. A CT coronary angiogram, in which you receive a contrast dye injected intravenously during a CT scan, also can generate images of your heart arteries.
- **Magnetic resonance angiography (MRA)** uses MRI technology, often combined with an injected contrast dye, to check for areas of narrowing or blockages.

Questions to ask your doctor at your initial appointment include:

- What are the possible causes for my signs and symptoms?
- What tests do I need?
- Should I see a specialist?
- Should I follow any restrictions while I wait for my next appointment?
- What emergency signs and symptoms should prompt a call to 911 or emergency medical help?

Questions to ask if you are referred to a cardiologist include:

- What is my diagnosis?
- What is my risk of long-term complications from this condition?
- What treatment do you recommend?
- If you're recommending medications, what are the possible side effects?
- Am I a candidate for surgery? Why or why not?
- What diet and lifestyle changes should I make?
- What restrictions do I need to follow, if any?
- How frequently will you see me for follow-up visits?
- I have these other health problems. How can I best manage them together?

What to expect from your doctor A doctor or cardiologist who sees you for heart-related signs and symptoms may ask:

- What are your symptoms?
- When did you first begin experiencing symptoms?
- Have your symptoms gotten worse over time?
- Do your symptoms include chest pain?
- Have you had any difficulty breathing?
- Does exercise or physical exertion make your symptoms worse?
- Are you aware of any history of heart problems in your family?
- Have you been diagnosed with any other health conditions?
- What medications are you currently taking?
- Have you ever been treated with radiation therapy?
- How much do you exercise in a typical week?
- What's your typical daily diet?
- Do you or did you smoke? How much?
- Do you drink alcohol? How much?

Angina treatments

Your doctor says your chest pain (angina) is caused by blockages in your heart arteries and that you need to get those blockages taken care of. What are your options?

First, it's important to determine what type of angina you have. There are two main types of angina — chronic stable angina and unstable angina. Unstable angina is a serious situation and requires emergency treatment. Treatment for unstable angina involves hospitalization with medications to stabilize your condition. Many people with unstable angina will require a procedure called angioplasty (also known as percutaneous coronary intervention), usually combined with the placement of a small metal tube called a stent. In some cases of unstable angina, heart surgery (coronary artery bypass) is needed.

But doctors have been debating which treatment for chronic stable angina works best. Some doctors think angioplasty is the best treatment option. Others believe taking medications for angina may be just as effective for some people as undergoing angioplasty. Making a decision on how to treat your angina can be difficult, but knowing the benefits and risks of stents and medications may help you decide.

Why are there different treatments for each type of angina?

Angina is pain, discomfort or pressure in the chest, and doctors usually describe it as chronic stable angina or unstable angina.

1. Chronic stable angina is a form of chest discomfort that happens when your heart is working hard and needs more oxygen, such as during exercise. The pain goes away when you rest. In chronic stable angina, the pattern of chest discomfort is consistent (thus, the term “stable”) as far as how much physical exertion will trigger it. Your narrowed arteries can be the cause of this form of angina. If you have chronic stable angina, you may need to decide whether to use angioplasty with stenting or medications as treatment. If the blockage causing chronic stable angina

is severe, it's possible your doctor may recommend coronary bypass surgery, in which the blocked arteries are replaced with blood vessels grafted from another part of your body.

2. **Unstable angina** is either the new onset of angina or a change in your usual pattern of chest pain or discomfort (getting worse, lasting longer, or not being relieved with rest or use of medications). Unstable angina is dangerous and a warning sign of a heart attack. If your angina is unstable, seek urgent medical care. You may need hospitalization, adjustment of medications and angioplasty with stents, even if your doctors find that you're not having a heart attack.

If you have stable angina, you may be able to treat it with medications and lifestyle changes alone, meaning you may not need angioplasty with stenting. Medications that can improve symptoms:

1. **Aspirin** reduces the ability of your blood to clot, making it easier for blood to flow through narrowed heart arteries.
2. **Nitrates** relax and widen your blood vessels, allowing more blood to flow to your heart muscle. You might take a nitrate when you have angina-related chest discomfort, before doing something that usually triggers angina (such as physical exertion), or on a long-term preventive basis.
3. **Beta blockers** work by blocking the effects of the hormone epinephrine, also known as adrenaline. As a result, your heart beats more slowly and with less force, reducing blood pressure and reducing the workload on your heart. Beta blockers also help blood vessels relax and open up to improve blood flow.
4. **Statins** block a substance your body needs to make cholesterol. They may also help your body reabsorb cholesterol that has accumulated in the buildup of fats in your artery walls, helping prevent further blockage. Statins also may help reduce inflammation in your blood vessels.
5. **Calcium channel blockers**, also called calcium antagonists, relax and widen blood vessels by affecting the muscle cells in the arterial walls. This increases blood flow in your heart, reducing or preventing angina. Calcium channel blockers also slow your pulse and reduce the workload on your heart.

6. **Angiotensin-converting enzyme (ACE) inhibitors** help relax blood vessels. They prevent an enzyme in your body from producing angiotensin II, a substance in your body that affects your cardiovascular system in numerous ways, including narrowing your blood vessels. This narrowing can cause high blood pressure and force your heart to work harder.
7. **Ranolazine (Ranexa)**, an anti-angina medication, may be prescribed with other angina medications, such as calcium channel blockers, beta blockers or nitroglycerin.

If you try drug treatment and lifestyle changes and you still have symptoms that are limiting you, a stent may be the next step.

During an angioplasty, your doctor inserts a tiny balloon in your narrowed artery through a catheter that's placed in an artery. The balloon is inflated to widen the artery, and then a small wire mesh coil (stent) is usually inserted to keep the artery open. Some stents are bare metal, while others are coated with medications to help keep your artery open (drug-eluting stents).

Angioplasty and stenting involve some risk. There's a risk of blockages re-forming after a stent is implanted, risk of a blood clot forming in the stent, as well as additional risks — albeit small — including the risk of having a heart attack, stroke, or life-threatening bleeding during or after the procedure. You should consider that even if you have a stent placed, you'll need to take aspirin for the rest of your life. You'll also need to take additional medications to prevent blood clots, usually for at least one year.

Many doctors consider angioplasty with stent placement to be a good angina treatment option for blocked arteries and chronic stable angina. That's because it's less invasive than open-heart surgery and has had good results.

Regardless of which angina treatment you choose, your doctor will recommend that you make lifestyle changes. Because heart disease is often the underlying cause of most forms of angina, you

can reduce or prevent angina by working on reducing your heart disease risk factors. These risk factors include:

- Smoking. If you smoke, stop.
- Poor diet. Eat a healthy diet with limited amounts of saturated fat, lots of whole grains, and many fruits and vegetables.
- High cholesterol. Know your cholesterol numbers and ask your doctor if you've optimized them to the recommended levels.
- Lack of physical activity. Talk to your doctor about starting a safe exercise plan. Because angina is often brought on by exertion, it's helpful to pace yourself and take rest breaks.
- Excess weight.
- Underlying conditions. Treat diseases or conditions that can increase your risk of angina, such as diabetes, high blood pressure and high blood cholesterol.
- Stress. Avoiding stress is easier said than done, but try to find ways to relax.

So which angina treatment is better — angioplasty and stenting or medications? Your medical condition will determine whether having angioplasty and stenting or taking medications will work better for you. Talk to your doctor about which angina treatment is best for your situation. Consider this:

- People who have angioplasty and stenting first may feel better quicker. For example, their chest pain may decrease quicker than those who just take medication. However, some studies suggest that after a few years those who only take medication may have the same level of pain relief (less chest pain) as those who had angioplasty and stenting.
- People who take only medications for angina may not feel better as quickly, but medications require no recovery time and are less expensive than angioplasty and stenting. If you choose to take medications to treat your angina, it's important that you take them exactly as your doctor says so that you get the most benefit.

19 Amazing Facts About Your Heart



Alzheimer's genes: Are you at risk?



Several genes have been associated with Alzheimer's disease, but more research is needed.

Alzheimer's genes are genes that make you more likely to develop Alzheimer's disease. Genes control the function of every cell in your body. Some genes determine basic characteristics, such as the color of your eyes and hair. Other genes can make you more likely to develop certain diseases, including Alzheimer's disease.

Researchers have identified several genes that are associated with Alzheimer's disease. However, genetic risk factors are just one part of the Alzheimer's disease story.

Although a rare form of Alzheimer's disease occurs before age 65 (early-onset Alzheimer's disease), the most common variety of Alzheimer's disease usually begins after age 65 (late-onset Alzheimer's disease). The most common gene associated with late-onset

Alzheimer's disease is called apolipoprotein E (APOE).

APOE has three common forms:

1. APOE e2 (least common) appears to reduce the risk.
2. APOE e4 (a little more common) appears to increase the risk.
3. APOE e3 (most common) doesn't seem to affect the risk.

Genes aren't the only factor. Because you inherit one APOE gene from your mother and another from your father, you have two copies of the APOE gene. Having at least one APOE e4 gene increases your risk of developing Alzheimer's disease. If you have two APOE e4 genes, your risk is even higher.

Not everyone who has one or two APOE e4 genes develops Alzheimer's. The disease occurs in many people who have no APOE e4 gene, suggesting that the APOE e4 gene affects risk but is not a cause. Other genetic and environmental factors likely are involved in the development of Alzheimer's disease.

Other late-onset genes
As research on the genetics of Alzheimer's progresses, researchers are uncovering links

between late-onset Alzheimer's and a number of other genes.

Several examples include:

1. SORL1. Some variations of SORL1 on chromosome 11 appear to be associated with Alzheimer's disease.
2. CLU. This gene helps regulate the clearance of amyloid-beta from the brain. Research supports the theory that an imbalance in the production and clearance of amyloid-beta is central to the development of Alzheimer's disease.
3. CR1. A deficiency of the protein this gene produces may contribute to chronic inflammation in the brain. Inflammation is another possible factor in the development of Alzheimer's.
4. PICALM. This gene is linked to the process by which brain nerve cells (neurons) communicate with each other. Smooth communication between neurons is important for proper neuron function and memory formation.
5. TREM2. This recently identified gene is involved in the regulation of the brain's response to inflammation. Rare variants in this gene are associated with an increased risk of Alzheimer's disease.

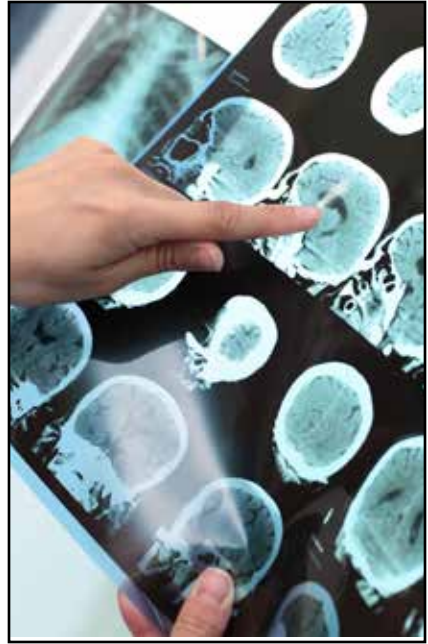
Researchers seek to learn more about the basic mechanisms of Alzheimer's disease and, consequently, ways to treat and prevent the disease.

As with APOE, these genes are risk factors, not direct causes. In other words, having a variation of one of these genes may increase your risk of Alzheimer's. However, knowing whether you have such a variation doesn't help predict whether you'll develop Alzheimer's.

Early-onset Alzheimer's
A very small percentage of people who develop Alzheimer's disease have the early-onset type, which is classified as beginning before age 65.

Scientists have identified three genes in which mutations cause early-onset Alzheimer's disease. If you inherit one of these mutated genes from either parent, you'll likely experience Alzheimer's symptoms before age 65. The genes involved are:

- Amyloid precursor protein (APP)
- Presenilin 1 (PSEN1)
- Presenilin 2 (PSEN2)



Mutations of these genes cause the production of excessive amounts of a toxic protein fragment called amyloid-beta peptide. As these fragments stick together and collect in the brain as amyloid plaques, the tau protein malfunctions. As the tau protein particles stick together and form neurofibrillary tangles, the brain cells die and the signs and symptoms of Alzheimer's disease develop.

However, some people who have early-onset Alzheimer's don't have mutations in these three genes. That suggests that this early-onset form of Alzheimer's

disease is linked to other genetic mutations that haven't been identified yet.

Most experts don't recommend genetic testing for late-onset Alzheimer's. In some instances of early-onset Alzheimer's, however, genetic testing may be appropriate.

In the case of APOE, knowing whether you have the e4 variety doesn't tell you whether you'll develop Alzheimer's. Although many people with APOE e4 develop Alzheimer's, many don't. Conversely, some people with no APOE e4 genes develop Alzheimer's. Most clinicians discourage testing for the APOE genotype because the results are difficult to interpret.

Testing for the mutant genes that have been linked to early-onset Alzheimer's — APP, PSEN1 and PSEN2 — may provide more certain results and have implications for current and future therapeutic drug trials.

Before being tested, it's important to weigh the emotional consequences of having that information. The results may affect your eligibility

for certain forms of insurance, such as disability, long-term care and life insurance.

Doctors often can accurately diagnose Alzheimer's disease without genetic testing.

Researchers and genes
Researchers suspect that many more genes that haven't been identified yet affect Alzheimer's disease risk. Such information may prove vital in the development of new ways to treat, or even prevent, Alzheimer's disease in the future.

Several other studies evaluate genetics of people with Alzheimer's disease and their family members.

Are there any proven Alzheimer's prevention strategies?

According to a statement from the National Institutes of Health (NIH), a number of factors could play a role in whether you develop Alzheimer's disease. However, more research is needed before modification of any of these factors can be proved to prevent Alzheimer's disease.

The NIH report was developed by an independent panel of health professionals and public representatives who reviewed the most current research on Alzheimer's prevention. The panel found that studies to date have varied too much in size, scope, criteria and definitions to compare results and draw reliable conclusions.

Although more research is needed to definitively prove which Alzheimer's prevention strategies are effective, some possible strategies that promote good overall health include:

- 
- A pair of dark-rimmed glasses and a yellow pencil are resting on a crossword puzzle. The puzzle is partially filled in, and the glasses are positioned over some of the squares. The background is a light, textured surface.
1. Avoiding smoking
 2. Eating a balanced diet rich in vegetables, fruits and lean protein, particularly protein sources containing omega-3 fatty acids
 3. Being physically and socially active
 4. Taking care of your mental health
 5. Using thinking (cognitive) skills, such as memory skills.

Alzheimer's or Normal Aging?

You forget someone's name. You lose your keys. You struggle to think of a common word. It's upsetting but we all forget things more often as we get older. So how can you tell if your little memory lapses are a normal part of aging or an early sign of Alzheimer's disease? Experts say forgetfulness is worth looking into when it affects your day-to-day life. That's when you want to see a doctor.



“We want to take a closer look at people when they are having difficulty handling daily life as easily as they did before,” says neurologist Jagan Pillai, MD, PhD. “Trouble managing medications, or their shopping list, paying bills, dressing yourself, making meals and attending to hygiene could reflect changes in the brain.”

Sometimes people put off looking into problems, but it is important to check into it early to see if the cause is reversible or not – especially because forgetfulness does not always mean Alzheimer's disease.

“If you notice consistent difficulties over six months and it is affecting your quality of life, it is good to have it checked,” says Dr. Pillai.

Alzheimer's disease or normal aging?

As most people age, they can find strategies to cope with changes in their thinking. Their ability to handle their life independently is seldom affected by normal changes unless they also have physical frailties.

The changes listed below can be a normal sign of aging or they can be symptoms of changes in your brain, including Alzheimer's. Report any of these to your doctor, especially if you have more than

one of these symptoms and the problem doesn't go away over time:

1. Vision problems: Some people with Alzheimer's develop problems judging the distance between two objects, or seeing color and contrast. Reading might become difficult.
2. Trouble making plans or following directions: With Alzheimer's, it can be hard to work out the logistics of a busy day, pay bills or even make a familiar recipe.
3. Having a hard time communicating: This goes beyond struggling to find the right word every so often. If you have Alzheimer's, you might use the wrong word or a made-up name for a familiar object. You might lose track of your thoughts, have trouble following a conversation, or repeat yourself.
4. Personality changes: People who have Alzheimer's sometimes withdraw from their friends or favorite activities and can become depressed, angry, suspicious or scared. They might get upset more easily than in the past.
5. Losing things: When it is consistent and you cannot formulate a plan to retrace your steps, it is a problem worth looking into more carefully.
6. Poor judgment: People with Alzheimer's often let their hygiene lapse; bad decisions about whether food is still good to eat, how to spend money, and who to trust are common.
7. Memory loss: Some memory loss is normal with age, so it can be hard to know when it is cause for concern. When forgetting things is stopping you from enjoying your activities and you find yourself limiting yourself from the things you are used to, it is worth getting checked out. Losing track of what season it is and forgetting where you are or how you got there, are also red flags that are seen more often with Alzheimer's disease.

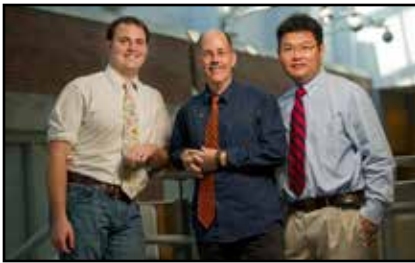
Safety is paramount if a person is diagnosed with Alzheimer's disease, so the earlier a diagnosis is made, the better. But not all forgetfulness is Alzheimer's disease. That's why it's important to talk to your doctor about any of these symptoms if they persist.

Alzheimer's protein structure suggests new treatment directions

The molecular structure of a protein involved in Alzheimer's disease – and the surprising discovery that it binds cholesterol – could lead to new therapeutics for the disease, Vanderbilt University investigators report in the journal *Science*.

Charles Sanders, professor of biochemistry, and colleagues in the Center for Structural Biology determined the structure of part of the amyloid precursor protein (APP) – the source of amyloid-beta, which is believed to trigger Alzheimer's disease. Amyloid-beta clumps together into oligomers that kill neurons, causing dementia and memory loss. The amyloid-beta oligomers eventually form plaques in the brain – one of the hallmarks of the disease.

“Anything that lowers amyloid-beta production should help prevent, or possibly treat, Alzheimer's disease,” Sanders said.



Charles Sanders, center, with colleagues Paul Barrett, left, and Yuanli Song determined the structure of a protein involved in Alzheimer's disease. (John Russell/Vanderbilt University)

Amyloid-beta production requires two “cuts” of the APP protein. The first cut, by the enzyme beta-secretase, generates the C99 protein, which is then cut by gamma-secretase to release amyloid-beta. The Vanderbilt researchers used nuclear magnetic resonance and electron paramagnetic resonance spectroscopy to determine the structure of C99, which has one membrane-spanning region.

They were surprised to discover what appeared to be a “binding” domain in the protein. Based on previously reported evidence that cholesterol promotes Alzheimer's disease, they suspected that cholesterol might be the binding partner. The researchers used a model membrane system called “bicelles” (that Sanders developed

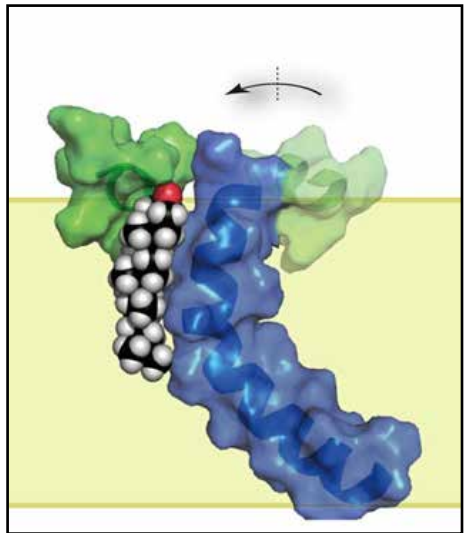
as a postdoctoral fellow) to demonstrate that C99 binds cholesterol.

“It has long been thought that cholesterol somehow promotes Alzheimer’s disease, but the mechanisms haven’t been clear,” Sanders said. “Cholesterol binding to APP and its C99 fragment is probably one of the ways it makes the disease more likely.”

Sanders and his team propose that cholesterol binding moves APP to special regions of the cell membrane called “lipid rafts,” which contain “cliques of molecules that like to hang out together,” he said. Beta- and gamma-secretase are part of the lipid raft clique.

“We think that when APP doesn’t have cholesterol around, it doesn’t care what part of the membrane it’s in,” Sanders said. “But when it binds cholesterol, that drives it to lipid rafts, where these ‘bad’ secretases are waiting to clip it and produce amyloid-beta.”

The structure of the C99 protein (shown in green and blue), which participates in triggering Alzheimer’s disease, revealed that it binds to cholesterol (shown in black, white and red). The discovery suggests a mechanism for cholesterol’s recognized role in promoting the memory-robbing disease and may lead to new therapeutics. (Charles Sanders and colleagues/ Vanderbilt University)



The findings suggest a new therapeutic strategy to reduce amyloid-beta production, he said.

“If you could develop a drug that blocks cholesterol from binding to APP, then you would keep the protein from going to lipid rafts.

Instead it would be cleaved by alpha-secretase – a ‘good’ secretase that isn’t in rafts and doesn’t generate amyloid-beta.”

Drugs that inhibit beta- or gamma-secretase – to directly limit amyloid-beta production – have been developed and tested, but they have toxic side effects. A drug that blocks cholesterol binding to APP may be more specific and effective in reducing amyloid-beta levels and in preventing, or treating, Alzheimer’s disease. The C99 structure had some other interesting details, Sanders said. The membrane domain of C99 is curved, which was unexpected but fits perfectly into the predicted active site of gamma-secretase. Also, a certain sequence of amino acids (GXXXG) that usually promotes membrane protein dimerization (two of the same proteins interacting with each other) turned out to be central to the cholesterol-binding domain. This is a completely new function for GXXXG motifs, Sanders said.

“This revealing new information on the structure of the amyloid precursor protein and its interaction with cholesterol is a perfect example of the power of team science,” said Janna Wehrle, Ph.D., who oversees grants focused on the biophysical properties of proteins at the National Institutes of Health’s National Institute of General Medical Sciences (NIGMS), which partially funded the work. “The researchers at Vanderbilt brought together biological and medical insight, cutting-edge physical techniques and powerful instruments, each providing a valuable tool for piecing together the puzzle.”

Sanders is proud that the studies reflect the value of basic science research and the full continuum of basic to clinical science.

“When we were developing bicelles 20 years ago, no one was saying, ‘someday these things are going to lead to discoveries in Alzheimer’s disease,’” he said. “It was interesting basic science research that is now paying off.”

Five Tips for Living with Alzheimers

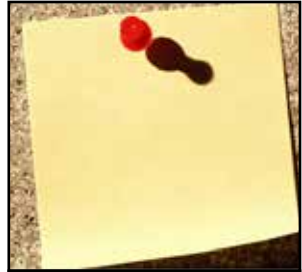
If you're concerned about Alzheimer's disease, watch for early warning signs. These include forgetting recent conversations, repeating yourself, and having trouble recalling words or learning new things, among other symptoms.

Research is underway on the benefits of physical activity for Alzheimer's, and other lifestyle changes may play a part, too. For example, eating a diet of fish, veggies and fruit instead of red meat and sugars may help lower the incidence of Alzheimer's.

There are many ways to fight memory loss, and they may also help delay the onset of symptoms. Staying socially active helps. So does keeping your brain "exercised" by doing crossword puzzles, playing games or practicing a musical instrument.

Alzheimer's can take a toll on caregivers, but try to find the positive in the things your loved one still enjoys. For example, many people with Alzheimer's take pleasure from the arts even as the disease progresses. And physical contact can continue to be a comfort.

Whether you are going through it or helping a loved one through it, honesty is crucial. Talk openly with children about the disease. They may notice a change in how their grandparents are acting, so explain that this change is not intentional.



Source: Mayo Clinic

Alzheimer's or depression: Could it be both?

People with Alzheimer's may experience depression differently from that of people without Alzheimer's. For example, individuals diagnosed with Alzheimer's disease:

1. May have symptoms of depression that are less severe
2. May experience episodes of depression that don't last as long or come back as frequently
3. Talk of suicide and attempt suicide less often
4. May experience hallucinations or delusions

Scientists aren't sure of the exact relationship between Alzheimer's disease and depression. Some research has found that the biological changes caused by Alzheimer's may intensify a predisposition to depression. Other studies suggest that the presence of depression may increase your chances of developing Alzheimer's disease.

It's clear that depression has a strong effect on quality of life for people with Alzheimer's disease. Depression can lead to:

1. Faster cognitive decline
2. Greater disability involving daily living skills
3. Increased dependence on caregivers
4. Earlier placement in nursing homes

Treatment Options

Making the right diagnosis and getting appropriate treatment can help make life easier and more enjoyable for both the person with Alzheimer's and his or her caregivers.

Several options are available to treat people diagnosed with Alzheimer's disease and depression:

1. Antidepressants. Selective serotonin reuptake inhibitors (SSRIs) — for example, citalopram (Celexa) and sertraline (Zoloft) — are the first antidepressants used for people who have depression and Alzheimer's because of the low risk of side effects and drug interactions. However, these medications may not be as effective

at treating depression with Alzheimer's as they are at treating depression alone. Other antidepressants, such as venlafaxine (Effexor XR) or bupropion (Aplenzin, Wellbutrin, others), also may be used.

2. Physical exercise. Regular physical exercise, particularly in the morning, may help ease the symptoms of depression.
3. Support groups and counseling. Support groups and professional counseling may help people with depression in the early stages of Alzheimer's disease, before their communication skills deteriorate.
4. Electroconvulsive therapy. Some people with depression and dementia don't respond to other treatments. In many of these cases, electroconvulsive therapy can help relieve symptoms of severe depression. This procedure delivers electricity to the brain for a few seconds to deliberately trigger a brief seizure.

Early Alzheimer's disease and depression share many symptoms, so it can be difficult even for doctors to distinguish between the two disorders. And many people with Alzheimer's also are depressed. One important difference between Alzheimer's and depression is in the effectiveness of treatment. While Alzheimer's drugs can only slow the progression of cognitive decline, medications to treat depression can improve a person's quality of life dramatically.

People who have both Alzheimer's and depression may find it easier to cope with the changes caused by Alzheimer's when they feel less depressed.

Similar symptoms

Some of the symptoms common to both Alzheimer's and depression include:

1. Loss of interest in once-enjoyable activities and hobbies
2. Social withdrawal
3. Memory problems
4. Sleeping too much or too little
5. Impaired concentration

With so much overlap in symptoms, it can be hard to distinguish between the two disorders, especially since they so often occur together. A thorough physical exam and psychological evaluation can be helpful in determining a diagnosis. However, many people with moderate to severe Alzheimer's disease lack both the insight and the vocabulary to express how they feel.



Signposts for depression: To detect depression in people who have Alzheimer's disease, doctors must rely more heavily on nonverbal cues and caregiver reports than on self-reported symptoms. If a person with Alzheimer's displays one of the first two symptoms in this list, along with at least two of the others within a two-week period, he or she may be depressed.

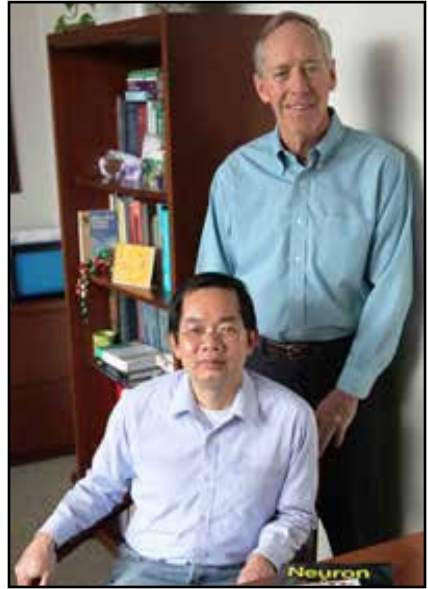
1. Significantly depressed mood — sad, hopeless, discouraged, tearful
2. Reduced pleasure in or response to social contacts and usual activities
3. Social isolation or withdrawal
4. Eating too much or too little
5. Sleeping too much or too little
6. Agitation or lethargy
7. Irritability
8. Fatigue or loss of energy
9. Feelings of worthlessness, hopelessness or inappropriate guilt
10. Recurrent thoughts of death or suicide

Use It or Lose It

The saying could apply especially to the brain when it comes to protecting against Alzheimer's disease. Previous studies have shown that keeping the mind active, exercising and social interactions may help delay the onset of dementia in Alzheimer's disease.

Now, a new study led by Dennis Selkoe, MD, co-director of the Center for Neurologic Diseases in the Brigham and Women's Hospital (BWH) Department of Neurology, provides specific pre-clinical scientific evidence supporting the concept that prolonged and intensive stimulation by an enriched environment, especially regular exposure to new activities, may have beneficial effects in delaying one of the key negative factors in Alzheimer's disease.

Alzheimer's disease occurs when a protein called amyloid beta accumulates and forms "senile plaques" in the brain. This protein accumulation can block nerve cells in the brain from properly communicating with one another. This may gradually lead to an erosion of a person's mental processes, such



Drs. Dennis Selkoe (standing) and Shaomin Li led a study showing that prolonged and intensive stimulation by an enriched environment may have beneficial effects in delaying Alzheimer's disease.

as memory, attention, and the ability to learn, understand and process information.

The BWH researchers used a wild-type mouse model when evaluating how the environment might affect Alzheimer's disease. Unlike other pre-clinical models used in Alzheimer's disease research, wild-type mice tend to more closely mimic the scenario of average humans developing

the disease under normal environmental conditions, rather than being strongly genetically pre-disposed to the disease.

Selkoe and his team found that prolonged exposure to an enriched environment activated certain adrenalin-related brain receptors which triggered a signaling pathway that prevented amyloid beta protein from weakening the communication between nerve cells in the brain's "memory center," the hippocampus. The hippocampus plays an important role in both short- and long-term memory.

The ability of an enriched, novel environment to prevent amyloid beta protein from affecting the signaling strength and communication between nerve cells was seen in both young and middle-aged wild-type mice. "This part of our work suggests that prolonged exposure to a richer, more novel environment beginning even in middle age might help protect the hippocampus from the bad effects of amyloid beta, which builds up to toxic levels in one hundred percent of Alzheimer

patients," said Selkoe.

Moreover, the scientists found that exposing the brain to novel activities in particular provided greater protection against Alzheimer's disease than did just aerobic exercise. According to the researchers, this observation may be due to stimulation that occurred not only physically, but also mentally, when the mice moved quickly from one novel object to another.

"This work helps provide a molecular mechanism for why a richer environment can help lessen the memory-eroding effects of the build-up of amyloid beta protein with age," said Selkoe. "They point to basic scientific reasons for the apparent lessening of AD risk in people with cognitively richer and more complex experiences during life."

Dementia



A study of cognitive complaints in older adults showed that memory concerns from both the patient and an informant was most predictive of converting to Alzheimer's disease or dementia within three years.

"We're interested in how we can detect unusual or unhealthy brain changes at their earliest stage, and we found that people who have mutual sources of complaint, from both themselves and a loved one, are at a great risk of developing mild cognitive impairment or Alzheimer's disease over an approximate two-year period," said Katherine Gifford, Psy.D., neuropsychology fellow in the Vanderbilt Memory & Alzheimer's Center and lead

author of the study.

The study, "The source of cognitive complaints predicts diagnostic conversion differentially among nondemented older adults," was published online July 18 in the journal *Alzheimer's & Dementia*.

Researchers leveraged the National Alzheimer's Coordinating Center's database of information collected from 34 current and previously funded national Alzheimer's Disease Centers, supported by the National Institute on Aging. The study included more than 6,000 participants age 55-90 evaluated from 2005-2012.

The analysis revealed that, among the cognitively normal, a combination of both self and informant cognitive complaints was associated with a fourfold risk of progression to dementia or mild cognitive impairment, the earliest clinical stage of dementia. A self complaint or informant complaint alone conferred a twofold increased risk of progression.

Among those with mild cognitive impairment at initial assessment, a combination of both self and informant cognitive complaints was associated with a threefold risk of converting to dementia.

“Ninety-five percent of older adults have some sort of cognitive complaint, so a lot of people will go to their doctor worried but may be dismissed as normal aging,” Gifford said. “I think the results show that a cognitive complaint should be taken seriously, particularly with a mutual complaint. That’s certainly a time when further follow-up or referral to a specialist is warranted.”

Angela Jefferson, Ph.D., director of the Vanderbilt Memory

& Alzheimer’s Center, said this research parallels the work of colleagues to identify more effective therapeutic interventions for Alzheimer’s disease.

“Once these treatments are available, we think they’ll be more effective early in the disease course, so we’re looking at early identification markers.

“There’s an enormous emphasis on biomarkers, but cerebrospinal fluid involves a somewhat invasive lumbar puncture and PET imaging costs thousands of dollars,” Jefferson said.

“We think there needs to be more cost-efficient, easily implemented tools to identify people who are at greatest risk, and this research is a great complementary piece of information.”

Navigating the Organ Transplants Wait Lists

“How organs get allocated gets tricky,” explained Theresa Daly, N.P., the Director of Transplant Clinical Operations at NewYork-Presbyterian/Columbia University Medical Center.

When patients come into a transplant center, undergo evaluation, and are deemed suitable for organ transplantation, they are placed on a national waiting list that is managed by a federally funded organization called UNOS (United Network for Organ Sharing). There are more than 114,000 people on the list, but it’s not as simple as being, say, number 35 or 300 and waiting your turn. The system has variables.

“Life-Saving” and “Life-Enhancing”

Transplantation of the liver, lung and heart, are considered life-saving operations. When a patient is added to the UNOS waiting list for these organs, an organ-specific score is generated based upon required data entered into the system. This score is used to determine how critical a patient’s illness is, and prioritizes a patient on the list based, in part, on their severity of illness.

However, because of the limited amount of time that the liver, lung, heart, and pancreas can be out of the body, these organs are allocated to local transplant centers first. “So if you are the #1 patient for a heart transplant on the national list, you live in New York City, and a heart becomes available in California, you most likely will not be considered for that donor heart because you are too far away. The converse is true as well, that donor hearts in our local area are offered first to the local heart transplant centers. All of these organs are allocated based on blood type and height and/or weight matches, as well as where the patients are prioritized on the organ match list,” Ms. Daly explained.

Kidneys, on the other hand, can be kept on a pump for up to approximately 30 hours and, thus, could be shipped across the country. In addition, kidney transplants are considered life-

enhancing rather than life-saving operations. Thus, the wait list for kidneys is a first-come, first-serve basis. "There are specific instances where a patient might be given a higher priority on the waiting list," explained Judith Hambleton, R.N., the Chief Transplant Coordinator at NewYork-Presbyterian/Weill Cornell Medical Center. "For example, the pediatric patients are given a higher priority over adults on the kidney transplant list," she said. Also, anyone in a situation where it is difficult to find a matching donor due to an increased amount of antibodies are given a slight advantage.

Location and Wait Time

The wait list for all organs is considerable longer on both the West and East coasts, and specifically in California and New York State. In fact, only 18% of people in New York State have consented to be organ donors and the state is ranked 50 out of 52 in terms of percentage of registered organ donors. Reasons for this discrepancy may include a greater sense of altruism in the Midwest, Ms. Hambleton suggested. In addition, the reason may stem from a lack of education, which may lead to one of the mistaken beliefs that agreeing to be an organ donor means that emergency room staff may not work as hard to save a potential donor's life, Ms. Daly said. In fact, the medical staff in an emergency room is completely separate from the transplant team, and transplantation would only occur if all possible efforts to save a person's life failed.

Affluence and Advantage

The sometimes heard claim that celebrities or the wealthy can skip ahead on the list is a fallacy. However, the wealthy may be at an advantage in the sense that they can register for organs at different transplant centers in different states, essentially upping their odds for receiving an organ. Ms. Hambleton offered the example of Mickey Mantle who, when needing a liver transplant, had the means to travel to the region with the shortest wait list (which at the time for his blood group was Texas) and had a private plane enabling him to get to Texas quickly when an organ became available. "The vast majority of patients would not be able to do

this,” she said. “So it is not that the list itself allows advantages for the wealthy, it is just that they have advantages at their disposal. We try to make the system as fair as possible, but there are always going to be rare exceptions,” she explained. She added that former Chicago Bears running back and Pro Football Hall of Fame recipient Walter Payton died of liver failure while waiting on the transplant list.

Living Organ Donation

A way around waiting lists for those in need of kidney or liver transplants may be living donor donation. With this, a family member or friend donates a kidney or a portion of their liver to someone in need. A person can live with one kidney and the liver can regenerate to full size.

Benefits of living donor transplants include having a scheduled surgery over an emergency surgery (with a deceased donor organ) where there is more time to insure a good donor/recipient match and to make sure the patient is in optimal health before surgery. In the case of kidney living donor transplants, the reduced wait time for transplant allows patients to receive the transplant before they need dialysis, which is linked to markedly better outcomes. With a good match, living donor kidney transplants have been known to last for up to 20 or 30 years, “approximately twice as long as those from deceased donors,” Ms. Hambleton said.

Becoming an Organ Donor

Residents in New York State may sign up for a donor registry when obtaining a driver’s license or non-driver identification card, or when you renew your driver’s license by signing the donor box that appears on each of these forms. Residents can also sign up through the New York State Health Department, or on a voter registration form. Those outside New York can visit Donate Life America for information about their state.

Complementary Treatments for Insomnia Can Help You Sleep – Naturally

Insomnia, or disordered sleeping, brings long nights of unsatisfying or insufficient sleep — and even longer days of exhaustion and stress. A wide range of complementary medicine strategies alone or in combination with standard treatment can help you sleep better.

Learn to take a fresh, holistic approach to your health and well-being including: mind, body and energy techniques; biological supplements; and cognitive behavioral therapy for insomnia

None of the treatments are invasive or cause addiction. In the 2006 Archives of Internal Medicine, more than 50 percent of people using the treatments found them to be very helpful in maintaining their health and well-being.

Mind-body therapies — healing from the inside out

Patients suffering from insomnia experience significant stress from lying in bed for hours at a time, tossing and turning while watching the clock. The mind is so important when it comes to sleep that mind-body techniques should be one of the first strategies a patient tries. Examples include meditation, tai chi and yoga. These practices are particularly helpful for elderly patients.

Body-based therapies — relaxation from head to toe

Patients report that body-based therapies can relax the body enough so that it is ready for sleep. These include massage, acupuncture, energy techniques for stress reduction such as Reiki, Healing Touch and Therapeutic Touch. Massage can be beneficial for everyone from infants to the elderly to cancer patients. Acupuncture enhances sleep quality when measured by patients and by machine, especially if pain is involved.

Biologically based therapies — not your average vitamins

Biological supplements aren't sleeping pills. They help to balance your body's chemistry and rhythm naturally, making it easier to fall

asleep. The most effective and popular biological treatments are:

1. Melatonin, a natural sleep hormone produced by the body
2. Valerian root tea
3. Chamomile tea
4. Magnesium, a mineral supplement
5. L-theanine and 5-HTP, naturally occurring amino acids

Cognitive-behavioral therapy for insomnia is a diverse set of strategies aimed at improving the quality of sleep as well as sleep patterns. “It helps people change the thoughts and behaviors that interfere with sleep,” explains Michelle Drerup, PsyD, of the Cleveland Clinic Sleep Disorders Center. She works with Center for Integrative Medicine patients. Changing the way you think about sleep changes the way you sleep. Patients like cognitive behavioral therapy for insomnia because it’s effective in both the short and long run, and has minimal side effects.

CBT-I strategies all seek to decrease the time it takes to fall asleep, reduce sleep interruptions, improve sleep quality and duration, and decrease the resulting daytime distress and impairment.



Here are some recommendations for improving sleep:

- Limit the time you spend awake in bed. Your bed is for sleeping, and you should not be there when you are not sleepy. If you find yourself still awake after 15 to 20 minutes, leave the bedroom and return when you feel tired. You should associate your bedroom only with sleep — not TV, emails from work or worry.
- Create a sleep schedule—and stick to it! Whether you sleep through the night or not at all, wake up at the same time each day. This will help your body regulate its biological clock or circadian rhythm.
- Practice good sleep hygiene. Sleep hygiene refers to behaviors that enhance sleep quality, such as regular exercise (but not too close to bedtime); developing a pre-bedtime relaxation routine; avoiding or limiting caffeinated beverages; avoiding naps, which disrupt the sleep cycle (or limiting them to 30 minutes); and limiting alcohol intake.
- Study up on sleep. The more you know about how and why people sleep, and which beliefs, behaviors and outside influences affect your sleep the easier it will be to change sleep habits.
- Cognitive therapy. Insomnia is influenced by five main mental processes: worry, selective attention and monitoring, distorted perception of sleep and daytime deficits, unhelpful beliefs about sleep and counterproductive safety behaviors. Cognitive therapy helps you to reverse these mental processes during the day and night. It is especially helpful in preventing relapse.
- Relax. This is often easier said than done, which is why Dr. Drerup suggests professional help for relaxation training from a sleep psychologist or a professional trained in services such as meditation, guided imagery or hypnosis. Results are not immediate, but last a lifetime.

Hip Pain

Hip pain is a common complaint that can be caused by a wide variety of problems. The precise location of your hip pain can provide valuable clues about the underlying cause.

Problems within the hip joint itself tend to result in pain on the inside of your hip or your groin. Hip pain on the outside of your hip, upper thigh or outer buttock is usually caused by problems with muscles, ligaments, tendons and other soft tissues that surround your hip joint.

Hip pain can sometimes be caused by diseases and conditions in other areas of your body, such as your lower back or your knees. This type of pain is called referred pain. Most hip pain can be controlled with self-care at home.

Hip pain may be caused by arthritis, injuries or other problems.

Arthritis	Pinched nerves	Other problems
1. Juvenile rheumatoid arthritis	1. Herniated disk	1. Avascular necrosis
2. Osteoarthritis	2. Meralgia paresthetica	2. Legg-Calve-Perthes disease
3. Psoriatic arthritis	3. Sacroiliitis	3. Osteomyelitis
4. Rheumatoid arthritis	4. Sciatica	4. Osteoporosis
5. Septic arthritis	5. Spinal stenosis	5. Rickets
		6. Synovitis
Injuries	Cancer	
1. Bursitis	1. Advanced (metastatic) cancer that has spread to the bones	
2. Dislocation	2. Bone cancer	
3. Hip fracture	3. Leukemia	
4. Hip labral tear		
5. Inguinal hernia		
6. Sprains and strains		
7. Tendinitis		



When to see a doctor

You may not need to see a doctor if your hip pain is minor. Try these self-care tips:

- Gentle exercise. While certain exercises may cause some discomfort, in general, exercise is much more likely to help than to do any significant harm.
- Weight loss. Taking off just 5 to 10 pounds can make a significant difference in the amount of pain or discomfort you experience.
- Rest. Avoid repeated bending at the hip and direct pressure on it. Try not to sleep on the affected side and avoid prolonged sitting.
- Pain relievers. Over-the-counter pain relievers such as acetaminophen (Tylenol), ibuprofen (Advil, Motrin) and naproxen sodium (Aleve) may help ease your hip pain.
- Ice or heat. Use ice cubes or a bag of frozen vegetables wrapped in a towel to apply cold treatments to your hip. Conversely, a warm bath or shower may help prepare your muscles for stretching exercises that can reduce pain.

If self-care treatments don't help, make a doctor's appointment.

Seek immediate medical attention - Ask someone to drive you to urgent care or the emergency room if your hip pain is caused by an injury and is accompanied by:

- A joint that appears deformed
- Inability to move your leg or hip
- Inability to bear weight on the affected leg
- Intense pain
- Sudden swelling

TOOLS & RESOURCES

L3 Health/GlobalAccess

Provided by Healthnetwork Foundation

L3 Health/GlobalAccess is brought to you through an alliance with Healthnetwork Foundation, a nonprofit whose mission is to improve medicine for all by connection CEOs with leading hospitals and their doctors to provide the best access to world class care and increase philanthropic funding for medical research.

When faced with a complex medical issue, this alliance offers the certainty of more options from top hospitals, better opportunities to ask questions of noted experts and the comfort of knowing you made the right choice. Every day, Healthnetwork Medical Coordinators assist with:

- Major Health Issues, such as Cancer or Heart Disease
- Executive Health Programs
- Pediatric Specialists
- Orthopedic Referrals
- Mental Health/Addiction Treatment Services



Whether you need a specialist, want to know the latest medical research, or would like to advance the pace of medical research, Healthnetwork partners with you in the following ways:

- Facilitated access to appointments for diagnosis or second opinion
- Assistance for spouses, children, or parents
- Hospital concierge services at select hospitals
- Personalized medical research by Healthnetwork's medical director
- Philanthropic gift planning

To ensure that you receive maximum coverage, check with your health insurance provider (if applicable before booking hospital admissions through L3 Health/GlobalAccess).

All costs for healthcare, transportation (including emergency transport and travel agency fees), accommodations and other related costs are the responsibility of the Member or patient.

GOLD Hospitals *(have dedicated offices and liaisons):*

Cedars-Sinai Medical Center, Los Angeles, CA

Cleveland Clinic, Cleveland, OH and Weston, FL

Johns Hopkins Hospital, Baltimore, MD

Mayo Clinic, Rochester MN, Scottsdale, AZ and Jacksonville, FL

St. Luke's Episcopal Hospital, Houston, TX

UCSF Medical Center, San Francisco, CA

Foundation Alliances *(have liaisons, but not all services may be available):*

All Children's Hospital, St. Petersburg, FL

Baptist Hospital of Miami, Miami, FL

Beth Israel Deaconess Medical Center, Boston, MA

Cincinnati Hospital of Alliances, Cincinnati, OH

Cincinnati Children's Hospital Medical Center

Lindner Center of HOPE

The Christ Hospital

TriHealth - Bethesda North Hospital & Good Samaritan Hospital

UC Health - University of Cincinnati Medical Center

Dana-Farber Cancer Institute, Boston, MA

Duke University Medical Center, Durham, NC

Emory Healthcare, Atlanta, GA

Hospital for Special Surgery, New York, NY

Houston Methodist, Houston, TX

Jupiter Medical Center, Jupiter, FL

MD Anderson Cancer Center, Houston, TX

Massachusetts Eye and Ear Infirmary, Boston, MA

Medical University of South Carolina, Charleston, SC

Memorial Sloan-Kettering Cancer Center, New York, NY

National Jewish Health, Denver, CO

Physicians Regional Healthcare System, Naples, FL

Rehabilitation Institute of Chicago, Chicago, IL

Scripps Health, San Diego, CA

Swedish Medical Center, Seattle, WA

Texas Children's Hospital, Houston, TX

UCLA Medical Center, Los Angeles, CA

University Hospitals of Cleveland, Cleveland, OH

University of Chicago Medical Center, Chicago, IL

U.S. News and World Report Best Hospitals 2013-2014

The rankings, now in their 24th year, cover nearly 5,000 medical centers across the country and span 16 medical specialties, from cancer to neurology & neurosurgery. Hospitals that rank near the top of at least six specialties earn a spot on the Honor Roll. Just 18 distinguished hospitals made this year's list.



Johns
Hopkins
Hospital



Massachusetts
General
Hospital,
Boston




Mayo Clinic

Rank	Hospital	Points	Specialties
1	Johns Hopkins Hospital, Baltimore	30	15
2	Massachusetts General Hospital, Boston	29	16
3	Mayo Clinic, Rochester, Minn.	29	15
4	Cleveland Clinic	27	14
5	UCLA Medical Center, Los Angeles	19	13
6	Northwestern Memorial Hospital, Chicago	17	12
7	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	17	10
7	UCSF Medical Center, San Francisco	17	10
9	Brigham and Women's Hospital, Boston	16	10
10	UPMC-University of Pittsburgh Medical Center	15	10
11	Hospital of the University of Pennsylvania, Philadelphia	12	11
12	Duke University Medical Center Durham, N.C.	12	9
13	Cedars-Sinai Medical Center, Los Angeles	12	8
14	NYU Langone Medical Center, New York	11	8
15	Barnes-Jewish Hospital/ Washington University, St. Louis	10	9
16	IU Health Academic Health Center, Indianapolis	7	7
17	Thomas Jefferson University Hospital, Phil.	7	6
18	University Hospitals Case Medical Center, Cleveland	6	6






Calorie calculator

Go online to Mayo Clinic's website for a helpful calorie calculator:
http://www.mayoclinic.org/calorie-calculator/itt-20084939?utm_source=newsletter&utm_medium=email&utm_campaign=housecall&pubDate=08/21/2013



Request an Appointment
Find a Doctor
Find a Job
Make a Donation

Log in to Patient Account
Translated Content



PATIENT CARE & HEALTH INFO

DEPARTMENTS & CENTERS

RESEARCH

EDUCATION


FOR MEDICAL PROFESSIONALS

PRODUCTS & SERVICES

GIVING TO MAYO CLINIC

Use the calorie calculator to estimate the number of daily calories your body needs to maintain your current weight.


Age years


 Switch to International Units

Height ft. in.

Weight lbs.

Sex ☐ Male ☐ Female

Next 



If you're pregnant or breast-feeding, are a competitive athlete, or have a metabolic disease, such as diabetes, the calorie calculator may overestimate or underestimate your actual calorie needs.

Based on Harris Benedict Equation and Dietary Reference Intakes, Institute of Medicine (IOM), 2005. Adapted by Mayo Foundation for Medical Education and Research.

Heart rate calculator

One way to gauge your exercise intensity is to see how hard your heart is beating during physical activity. To use this method, you first have to figure out your maximum heart rate - the upper limit of what your cardiovascular system can handle.

The basic way to calculate your maximum heart rate is to subtract your age from 220. For example, if you're 45 years old, subtract 45 from 220 to get a maximum heart rate of 175. This is the maximum number of times your heart should beat per minute while you're exercising.

Once you know your maximum heart rate, you can calculate your desired target heart rate zone — the level at which your heart is being exercised and conditioned but not overworked.

Here's how heart rate matches up with exercise intensity levels:

Moderate exercise: 50-70% of your max heart rate

Vigorous exercise: 70-85% of your max heart rate

If you're not fit or you're just beginning an exercise program, aim for the lower end of your target zone (50 percent). Then, gradually build up the intensity. If you're healthy and want a vigorous intensity, opt for the higher end of the zone.



How to determine your target zone

To determine your desired target heart rate zone, use an online calculator. Or, here's a simple way to do the math yourself. If you're aiming for a target heart rate of 70 to 85 percent, which is in the vigorous range, you would calculate it like this:

	220	
	-	
your age:	<input type="text"/>	
	<hr/>	
Max heart rate:	<input type="text"/>	
	x .7	x .85
Target heart rate:	<input type="text"/>	Target heart rate:
(low end)		(high end)

So how do you know if you're in your target heart rate zone? Use these steps to check your heart rate during exercise:

1. Stop momentarily.
2. Take your pulse for 15 seconds.
3. Multiply this number by 4 to calculate your beats per minute.

EMERGENCY RESPONSE

First-aid kits: Stock supplies that can save lives

A well-stocked first-aid kit can help you respond effectively to common injuries and emergencies. Keep at least one first-aid kit in your home and one in your car. Store your kits in easy-to-retrieve locations. Children old enough to understand the purpose of the kits should know where they are stored.

You can purchase first-aid kits at many drugstores or assemble your own. Contents of a first-aid kit should include:

Basic supplies

1. Adhesive tape
2. Antibiotic ointment
3. Antiseptic solution or towelettes
4. Bandages, including a roll of elastic wrap (Ace, Coban, others) and bandage strips (Band-Aid, Curad, others) in assorted sizes
5. Instant cold packs
6. Cotton balls and cotton-tipped swabs
7. Disposable latex or synthetic gloves, at least two pair
8. Duct tape
9. Gauze pads and roller gauze in assorted sizes
10. First-aid manual
11. Petroleum jelly or other lubricant
12. Plastic bags for the disposal of contaminated materials
13. Safety pins in assorted sizes
14. Scissors and tweezers
15. Soap or instant hand sanitizer
16. Sterile eyewash, such as a saline solution
17. Thermometer
18. Triangular bandage
19. Turkey baster or other bulb suction device for flushing out wounds



Medications

1. Activated charcoal (use only if instructed by your poison control center)
2. Aloe vera gel
3. Anti-diarrhea medication
4. Over-the-counter oral antihistamine, such as diphenhydramine (Benadryl, others)
5. Aspirin and nonaspirin pain relievers (never give aspirin to children)
6. Calamine lotion
7. Over-the-counter hydrocortisone cream
8. Personal medications that don't need refrigeration
9. If prescribed by your doctor, drugs to treat an allergic attack, such as an auto-injector of epinephrine (EpiPen, Twinject)
10. Syringe, medicine cup or spoon



Emergency items

1. Emergency phone numbers, including contact information for your family doctor and pediatrician, local emergency services, emergency road service providers and the regional poison control center
2. Medical consent forms for each family member
3. Medical history forms for each family member
4. Small, waterproof flashlight and extra batteries
5. Candles and matches
6. Sunscreen
7. Emergency space blanket
8. First-aid instruction manual



Check your first-aid kits regularly, at least every three months, to be sure batteries work and to replace supplies that have expired. Consider taking a first-aid course through the American Red Cross. Contact your local chapter for information on classes.

Use an Automated External Defibrillator

Unless CPR and defibrillation are provided within minutes of collapse, few attempts at resuscitation are successful. Even if CPR is performed, defibrillation with an AED is required to stop the abnormal rhythm and restore a normal heart rhythm.

New technology has made AEDs simple and user-friendly. Clear audio and visual cues tell users what to do and coach people through CPR. A shock is delivered only if the victim needs it. AEDs are now widely available in public places such as schools, airports and workplaces. You must know how to administer CPR to use an AED.

Steps:

1. Decide whether it is imperative to use an AED.
2. Check for signs of life. Is the victim breathing? Is there a pulse?
3. Before the AED machine is ready to use, you will want to perform CPR. For every minute the AED is not applied, a victim's life decreases by 10%.
4. Make sure your surroundings are safe.
5. Tell all people to stand back.
6. Follow the instructions on the AED. Place one pad on the upper right side of the chest and one on the lower left.
7. The AED will diagnose heart rhythm and will tell you if shock is needed. Only apply if the victim has no pulse and the machine tells you to.
8. Usually, the machine will tell you to continue CPR until another shock is issued.
9. Sometimes only one shock is needed, so please pay attention.
10. Remember CPR will consist of 30 compressions 1.5 to 2 inches deep followed by two rescue breaths.
11. Continue following the commands of the machine until an ambulance arrives.



Heart attack symptoms: Know a medical emergency

Symptom	Description
Chest discomfort or pain	This discomfort or pain can feel like a tight ache, pressure, fullness or squeezing in the center of your chest lasting more than a few minutes. This discomfort may come and go.
Upper body pain	Pain or discomfort may spread beyond your chest to your shoulders, arms, back, neck, teeth or jaw. You may have upper body pain with no chest discomfort.
Stomach pain	Pain may extend downward into your abdominal area and may feel like heartburn.
Shortness of breath	You may pant for breath or try to take in deep breaths. This often occurs before you develop chest discomfort or you may not experience any chest discomfort.
Anxiety	You may feel a sense of doom or feel as if you're having a panic attack for no apparent reason.
Lightheadedness	In addition to chest pressure, you may feel dizzy or feel like you might pass out.
Sweating	You may suddenly break into a sweat with cold, clammy skin.
Nausea and vomiting	You may feel sick to your stomach or vomit.

Most heart attacks begin with subtle symptoms — with only discomfort that often is not described as pain. The chest discomfort may come and go. Don't be tempted to downplay your symptoms or brush them off as indigestion or anxiety.

Don't "tough out" heart attack symptoms for more than five minutes. Call 911 or other emergency medical services for help. If you don't have access to emergency medical services, have someone drive you to the nearest hospital. Drive yourself only as a last resort, if there are absolutely no other options.

Heart attack symptoms vary widely. For instance, you may have only minor chest discomfort while someone else has excruciating pain. One thing applies to everyone, though: If you suspect you're having a heart attack, call for emergency medical help immediately.

Women may have all, none, many or a few of the typical heart attack symptoms. For women, the most common heart attack symptom is still some type of pain, pressure or discomfort in the chest. But women are more likely than are men to also have heart attack symptoms without chest pain, such as:

1. Neck, jaw, shoulder, upper back or abdominal discomfort
2. Shortness of breath
3. Nausea or vomiting
4. Abdominal pain or "heartburn"
5. Sweating
6. Lightheadedness or dizziness
7. Unusual or unexplained fatigue





Source: Mayo Clinic

Administer the Heimlich Maneuver

The universal sign for choking is hands clutched to the throat. If the person doesn't give the signal, look for these indications:

- Inability to talk
- Difficulty breathing or noisy breathing
- Inability to cough forcefully
- Skin, lips and nails turning blue or dusky
- Loss of consciousness

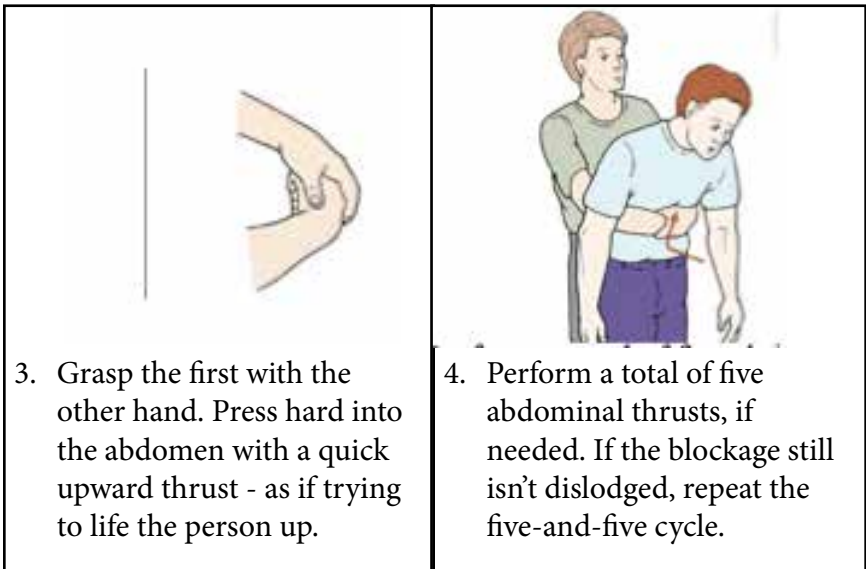
To perform abdominal thrusts (Heimlich maneuver) on someone else:

 <p>1. Stand behind the person. Wrap your arms around the waist. Tip the person forward slightly.</p>	 <p>2. Make a fist with one hand. Position it slightly above the person's navel.</p>
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5. If you're the only rescuer, perform back blows and abdominal thrusts before calling 911 or your local emergency number for help. If another person is available, have that person call for help.
6. If the person becomes unconscious, perform standard CPR with chest compressions.

If choking is occurring, the Red Cross recommends a “five-and-five” approach to delivering first aid:

1. Deliver five back blows between the person’s shoulder blades with the heel of your hand.
2. Perform five abdominal thrusts (also known as the Heimlich maneuver).
3. Alternate between five back blows and five abdominal thrusts until the blockage is dislodged.



If you’re alone and choking, you’ll be unable to effectively deliver back blows to yourself. However, you can still perform abdominal thrusts to dislodge the item. Place a fist slightly above your navel. Grasp your fist with the other hand and bend over a hard surface - a countertop or chair will do. Shove your fist inward and upward.

Recognize the signs of a stroke



Sudden numbness or weakness of the face, arm or leg, especially on one side of the body



Sudden confusion, trouble speaking or understanding



Sudden trouble seeing in one or both eyes



Sudden trouble walking, dizziness, loss of balance or coordination



Sudden, severe headache with no known cause

Immediately call 911 or the emergency medical services (EMS) number so an ambulance (ideally with advanced life support) can be sent for you.

Also, check the time so you'll know when the first symptoms appeared. It's very important to take immediate action. If given within 3 hours of the start of symptoms, a clot-busting drug called tissue plasminogen activator (tPA) may reduce long-term disability for the most common type of stroke. tPA is the only FDA-approved medication for the treatment of stroke within three hours of stroke symptom onset.

A TIA or transient ischemic attack is a "warning stroke" or "mini-stroke" that produces stroke-like symptoms but no lasting damage. Recognizing and treating TIAs can reduce your risk of a major stroke.

The usual TIA symptoms are the same as those of stroke, only temporary. The short duration of these symptoms and lack of permanent brain injury is the main difference between TIA and stroke.

In Case of Emergency Information

“In case of emergency” information, or ICE programs, enable first responders, such as paramedics, firefighters and police officers to identify victims and contact their next of kin to obtain important medical information. With this additional information and medical information, first responders can access this information from the victim’s phone in the event of an emergency. In the event of a trauma, it is critical to have this information within an hour, which can increase the chances of survival.



Things you should include:

- Your information: Your name and other relevant contact info
- Emergency contacts: Names and phone numbers
- Allergies: Let first responders know what you’re allergic to and how you react
- Medications : Describe the name, dosage and frequency of the medications you take

Getting started is easy!

1. Add a new contact
2. Enter “ICE” as the name.
3. Add your emergency contact person’s phone number.
4. Save, and done!

RECIPES

Banana, Raspberry and Blueberry Smoothie

Ingredients

8 oz. non-fat milk
1/3 cup 1% fat cottage cheese
1/4 unsweetened blueberries, frozen
1/4 cup unsweetened blackberries, frozen
1/4 cup red grapes, frozen
1/2 banana, sliced and frozen
1/4 tsp. vanilla extract

Directions

1. Cut up banana in slices. Freeze banana and grapes.
2. Put all ingredients in a blender and blend until smooth. Add more or less milk to desired consistency. Add your choice of sweetener, if desired.



Anthocyanins are colorful compounds found in red, purple or blue fruits and vegetables that are not only tasty, but good for us too! They are thought to “turn on” cancer preventive triggers in the cells, decreasing our risk for disease. Anthocyanins can be found in most berries including blueberries, blackberries, cranberries, cherries, red grapes, eggplant peel and red cabbage.

Calories: 235

Source: Cleveland Clinic

Breakfast fruit 'pizza'

Ingredients

- 1 whole-grain English muffin
- 2 Tbsp whipped fat-free strawberry cream cheese
- 1/3 C strawberries, sliced
- 3/4 C red grapes, quartered
- 1/4 C canned mandarin oranges, drained



Directions

1. Toast English muffin until golden brown.
2. Spread cream cheese on toasted muffin.
3. Arrange sliced strawberries, grapes and orange slices on top of the cream cheese.
4. Slice into quarters and enjoy!

Each serving provides plenty of vitamin C and potassium. This recipe is also a good source of folate and fiber.

Calories: 228

Source: Cleveland Clinic

Breakfast burrito

Ingredients

- 1/2 cup chopped tomato
- 2 tablespoons chopped onion
- 1/4 cup canned corn
- 1/4 cup egg substitute
- 1 flour tortilla, 6 inches in diameter
- 2 tablespoons salsa

Directions

1. In a small skillet, add the chopped tomato, onion and corn. Cook over medium heat until the vegetables are soft and moisture is evaporated. Add the egg substitute and scramble with the vegetables until cooked through, about 3 minutes.
2. To serve, spread the egg mixture in the center of the tortilla and top with salsa. Fold in both sides of the tortilla up over the filling, then roll to close. Serve immediately.



Calories: 231

Source: Mayo Clinic

Morning Glory Muffins

Ingredients

- 1 cup all-purpose (plain) flour
- 1 cup whole-wheat flour
- 3/4 cup sugar
- 2 teaspoons baking soda
- 2 teaspoons ground cinnamon
- 3/4 cup egg substitute
- 1/2 cup vegetable oil
- 1/2 cup unsweetened applesauce
- 2 teaspoons vanilla extract
- 2 cups chopped apples (unpeeled)
- 1/2 cup raisins
- 3/4 cup grated carrots
- 2 tablespoons chopped pecans



Directions

1. Preheat the oven to 350 F. Line a muffin pan with paper or foil liners.
2. In a large bowl, combine the flours, sugar, baking soda, and cinnamon. Whisk to blend evenly.
3. In a separate bowl, add the egg substitute, oil, applesauce and vanilla. Stir in the apples, raisins and carrots.
4. Add to the flour mixture and blend just until moistened but still slightly lumpy.
5. Spoon the batter into muffin cups, filling each cup about 2/3 full. Sprinkle with chopped pecans and bake until springy to the touch, about 35 minutes. Let cool for 5 minutes, then transfer the muffins to a wire rack and let cool completely.

Calories: 180

Source: Mayo Clinic

Super Charged Oatmeal

If you want the benefits of oatmeal but think it takes too long to make in the morning, think again. This oatmeal recipe is hearty and fiber-rich, with pumpkin spice, fruit and nuts for sweetness and crunch, and it's ready in two minutes! Make it in the microwave — what could be easier? It'll keep you going all morning long!

Ingredients

- ¼ cup oatmeal (old-fashioned, not instant)
- 1 tablespoon ground flax
- ¼ teaspoon pumpkin pie spice (or cinnamon)
- 1 cup fat free milk (can also substitute almond, rice or soy milk)
- 2 tablespoons nuts (no salt)
- ½ cup cut up fresh or frozen (thawed) fruit
- 1 tablespoon all bran cereal



Directions

1. In a 4-cup microwaveable bowl, combine oatmeal, flax, spice, and milk.
2. Microwave for 2 minutes on high setting.
3. While oatmeal is cooking, measure out nuts, fruit and bran cereal into a serving bowl.
4. Pour cooked oatmeal mixture into the serving bowl and enjoy.

Calories: 360

Source: Cleveland Clinic

Tex-Mex Breakfast Sandwich

Avocados are positively packed with heart-healthy (and belly-flattening) monounsaturated fats. And when it comes to your cholesterol, those fats are doubly effective: In a Canadian Medical Association Journal study, participants who ate an avocado-rich diet decreased their bad LDL cholesterol by 22% while upping their good HDL cholesterol by 11%.

Ingredients

- 2 large egg whites
- 2 Tbsp reduced-fat shredded sharp cheddar cheese
- 1 multigrain english muffin, toasted
- 2 slices avocado, about ½ ounce
- 4 tsp jarred chunky salsa



Directions

1. Coat a small nonstick skillet with cooking spray and heat over medium-high heat.
2. Stir in the egg substitute and cheese and cook 2 minutes per side.
3. Place the eggs on the bottom half of the English muffin.
4. Top with the avocado slices and salsa, then replace the top of the muffin.

Source: Prevention.com

Wholewheat Couscous Morning Mix

Ingredients

- 2 cups skim milk (or soy milk, etc.)
- 1/4 cup Eggbeaters (2 eggwhites)
- 2 tablespoons honey
- 3 teaspoons ground cinnamon
- 2 cups dry whole wheat couscous
- 1/3 cup dried tart cherries
- 1/2 cup slivered almonds



Directions

1. In a saucepan over low heat, combine the milk, egg white, honey and cinnamon.
2. When the mixture comes to a boil, stir in the couscous.
3. Turn off the heat, cover and let stand for 5 minutes. Stir in the cherries and almonds.

Calories: 286

Source:: Cooper Clinic

Spinach Mushroom Frittata

Ingredients

- 3 cloves of garlic, minced
- 1 cup chopped onion
- 1 teaspoon olive oil
- 1/2 pound fresh mushrooms, sliced
- 1/2 teaspoon dried thyme
- 10-ounce-bag fresh spinach
- 1 tablespoon water
- Egg substitute equivalent to 10 eggs
- 1 teaspoon dried dill or 1 tablespoon fresh dill
- 1/4 teaspoon black pepper
- 1/4 cup feta cheese



Directions

1. Preheat oven to 350 F. In a 10- or 12-inch nonstick, ovenproof skillet, saute garlic and onion in olive oil for about 5 minutes.
2. Add mushrooms and thyme. Cook an additional 5 minutes. Remove skillet from stove.
3. Place spinach in a separate saucepan. Add 1 tablespoon water. Cover and cook until just wilted.
4. Drain spinach and let cool in a colander. Squeeze out any liquid. Chop leaves.
5. In a large bowl, beat together egg substitute, dill and pepper. Stir in the spinach, mushroom mixture and feta cheese.
6. Clean nonstick skillet. Spray liberally with cooking spray. Return skillet to stove over medium heat. When skillet is hot, pour in egg mixture. Place in oven, uncovered. Check frittata in 10 minutes. Check every 5 minutes thereafter until center of frittata is slightly firm. Do not overcook.
7. When frittata is done, place a large serving platter over skillet. Flip skillet over so that frittata falls onto the plate. Cut into six pieces and serve.

Calories: 98

Southwestern frittata

Ingredients

- 1/2 green or red bell pepper, diced
- 4 fresh mushrooms, sliced (about 1/2 cup)
- 6 egg whites
- 1/2 cup salsa, plus 2 tablespoons for garnish
- 1/2 cup shredded cheddar cheese



Directions

1. Preheat the broiler. Position the rack 4 inches from the heat source.
2. Lightly coat a heavy, oven-proof skillet with cooking spray. Place on the stove over medium heat and add the peppers and mushrooms. Saute until the vegetables are tender, about 5 minutes.
3. In a small bowl, whisk together the egg whites and 1/2 cup of the salsa. Pour the egg white mixture into the skillet with the vegetables and cook until partially set, about 5 minutes. Don't attempt to blend or scramble the mixture. Sprinkle with cheddar cheese.
4. Place the skillet under the broiler and cook until the cheese is melted and eggs are set, about 5 minutes.
5. Divide the frittata in half and spoon onto individual plates. Garnish each serving with 1 tablespoon salsa and serve immediately.

Calories: 181

Heart Healthy Granola

Ingredients

- 2 cups regular oats
- 1/3 cup ground flaxseed
- 1/4 cup chopped walnuts
- 1/4 cup slivered almonds
- 2 teaspoons ground cinnamon
- 1/3 cup orange juice
- 1/3 cup honey
- 1/4 cup packed brown sugar
- 2 teaspoons canola oil
- 1 teaspoon vanilla extract
- Cooking spray
- 1/3 cup dried blueberries or cranberries



Directions

1. Preheat oven to 300 degrees.
2. Combine orange juice, honey, and brown sugar in a small saucepan. Cook over medium heat just until sugar dissolves, stirring frequently.
3. Remove from heat; stir in oil and vanilla.
4. Pour honey mixture over oat mixture, stirring to coat.
5. Spread mixture in a thin layer onto a jell-roll pan coated with cooking spray.
6. Bake at 300 degrees for 10 minutes; stir well. Bake an additional 10 to 15 minutes or until golden brown.
7. Spoon granola into a bowl; stir in dried cranberries. Cool completely.
8. Store completely cooled granola in an airtight container at room temperature for up to 2 weeks.

Calories: 196

Source: Barnes Jewish

Figs

Figs are a good source of vitamin B-6 and fiber. Though dried figs are available year round, the peak season for fresh figs is June through October.



Ingredients

- 1/4 cup chopped walnuts
- 12 ripe figs, about 1 pound total weight
- 2 tablespoons mascarpone cheese or whipped cream cheese
- Pinch of ground nutmeg
- 1/4 cup orange honey or other honey

Directions

1. Put the walnuts in a small, dry frying pan over medium-low heat. Cook, stirring often, until lightly toasted, 3 to 5 minutes. Transfer immediately to a plate to cool.
2. Slice the stems off the figs. Cut an “X” in the top of each fig, cutting down into the fruit about 1 inch. Carefully squeeze each fig from the bottom to open it slightly. Spoon 1/2 teaspoon of the cheese into the opening of each fig and sprinkle with the nutmeg.
3. To serve, divide the figs among individual plates. Sprinkle with the toasted walnuts, dividing evenly. Drizzle each serving with 2 teaspoons of the honey.

Calories: 154

Source: Mayo Clinic

Muesli Bars

Ingredients

2 1/2 cups old-fashioned rolled oats
1/2 cup soy flour
1/2 cup fat-free dry milk
1/2 cup toasted wheat germ
1/2 cup sliced (flaked) almonds or
chopped pecans, toasted
1/2 cup dried apples, chopped
1/2 cup raisins
1/2 teaspoon salt
1 cup dark honey
1/2 cup natural unsalted peanut butter
1 tablespoon olive oil
2 teaspoons vanilla extract



Directions

1. Preheat the oven to 325 F. Lightly coat a 9-by-13-inch baking pan with olive oil cooking spray.
2. In a large bowl, combine the oats, flour, dry milk, wheat germ, almonds, apples, raisins and salt. Stir well to blend and set aside.
3. In a small saucepan, stir together the honey, peanut butter and olive oil over medium-low heat until well blended. Don't let the mixture boil. Stir in the vanilla. Add the warm honey mixture to the dry ingredients and stir quickly until well combined. The mixture should be sticky but not wet.
4. Pat the mixture evenly into the prepared baking pan. Press firmly to remove any air pockets. Bake just until the edges begin to brown, about 25 minutes. Let cool in the pan on a wire rack for 10 minutes, and then cut into 24 bars. When just cool enough to handle, remove the bars from the pan and place them on the rack to cool completely. Store the bars in airtight containers in the refrigerator.

Calories: 177 per bar

Bacon Wrapped Apricots with Jalapeno

Ingredients

16 dried apricot halves
2 fresh jalapenos, seeded and cut into thin strips
2 pieces nitrite free, low sodium bacon, cut each piece in half lengthwise and then cut again horizontally



Directions

1. Preheat oven to 325 degrees.
2. Place one thin slice of jalapeno on top of apricot half.
3. Wrap apricot half with one strip of bacon with toothpick. Repeat procedure for remaining 15 apricots.
4. Bake on cookie sheet for approximately 12 minutes. After about 8 minutes, turn apricot halves over to allow browning on reverse side.
5. When done, remove apricots from pan and place on paper towel to drain.

Calories: 26

Source: Cooper Clinic

Low-gluten crab cakes

Ingredients

2 tablespoons extra-virgin olive oil
1/2 red bell pepper, finely diced
1/4 yellow onion, finely chopped
2 tablespoons finely minced fresh green chile pepper or to taste
1/4 cup ground walnuts
1 large egg
1 1/2 teaspoons curry powder
1/2 teaspoon ground cumin
Fine sea salt
1 six-ounce can crabmeat, drained and flaked
1/4 cup ground flaxseeds (can be purchased pre-ground)
1 teaspoon onion powder
1/2 teaspoon garlic powder
Baby spinach or mixed salad greens
Tartar sauce (optional)



Directions

1. Preheat the oven to 325 F. Line a baking sheet with foil.
2. Heat the oil in a large skillet over medium heat. Add bell pepper, onion, and chile pepper and cook until tender, 4 to 5 minutes. Set aside to cool slightly.
3. Transfer the vegetables to large bowl. Stir in the walnuts, egg, curry powder, cumin, and a dash of sea salt. Mix the crabmeat into the mixture and stir well. Form into four patties and transfer to the baking sheet.
4. Stir together the ground flaxseed, onion powder, and garlic powder in a small bowl. Sprinkle the “breading” over the crab cakes.
5. Bake the crab cakes until browned and heated through, about 25 minutes. Serve on a bed of spinach or salad greens with a dollop of tartar sauce if desired.

Thai Crab Cakes

Ingredients

- 1/2 cup brown basmati rice, rinsed and drained
- 1 1/2 cups water
- 1/2 teaspoon salt
- 1 teaspoon sesame oil
- 1/2 red onion, chopped
- 1 clove garlic, minced
- 5 oz fresh lump crabmeat, picked over to remove shell fragments
- 1 tablespoon fish sauce
- 1/2 teaspoon chili garlic sauce
- 2 tablespoons chopped fresh cilantro (fresh coriander)
- 1 egg, lightly beaten
- 3 tablespoons plain dried bread crumbs
- 1 tablespoon canola oil
- Fresh cilantro (fresh coriander) sprigs for garnish



Directions

1. In a saucepan, combine rice, water and 1/4 teaspoon salt. Cover and bring to a boil; stir once. Reduce the heat to low, re-cover and simmer until water is absorbed and rice is tender, 45-50 minutes. Set aside.
2. In a small frying pan, heat the sesame oil over medium heat. Add the onion and saute until soft and translucent, about 4 minutes. Stir in the garlic and saute until softened, about 1 minute. Remove from the heat.
3. In a large bowl, combine the crabmeat, onion mixture, fish sauce, chili garlic sauce, cilantro and the remaining 1/4 teaspoon salt. Toss gently with a fork to combine. Stir in the cooked rice and toss gently to combine. Stir in the egg and mix until well blended.
4. Sprinkle the bread crumbs on a sheet of waxed paper or parchment (baking) paper. Divide the crab mixture into 4 portions and form each portion into a 3 1/2-inch patty — or make 8 patties for appetizer portions. Dredge each patty in the bread crumbs.
5. In a large frying pan, heat the canola oil over medium-high heat. Add the patties to the pan and fry, turning once, until golden brown on both sides, about 5 minutes on each side. Serve immediately.

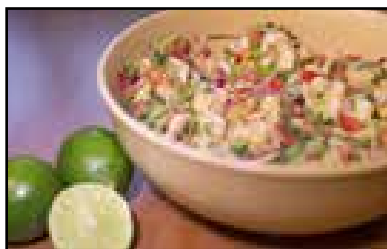
Citrus Shrimp Appetizer

Dressing Ingredients

- 2 cups fresh orange juice
- 1 cup lemon juice

Directions

1. Place dressing ingredients in a medium saucepan and boil (until reduced to one cup). Stir often. Do not to let ingredients scorch.
2. Refrigerate until ready to use.



Shrimp Ingredients

- 2 pounds frozen cooked medium shrimp, defrosted
- 1 1/2 cups celery, chopped
- 2 cups red pepper, diced
- 1 cup green pepper, diced
- 1/2 cup cilantro, chopped
- 1/4 cup olive oil
- 1 tsp crushed red pepper (or to taste)
- 1 tsp salt
- 5 drops Tabasco
- 5 cloves garlic, minced

Directions

3. Mix shrimp ingredients together and place in refrigerator.
4. One hour before serving pour chilled dressing over shrimp and continue to chill until ready to serve. Serve within one hour.

Calories: 78

Source: Cooper Clinic

Wheat Berry Salad

Ingredients

- 1 1/2 Cups cooked and cooled wheat berries
- 1 Cup chopped plum tomato
- 3/4 Cup cucumber, peeled and chopped medium
- 1/4 Cup green onions, chopped
- 1/4 Cup chopped fresh parsley
- 1 1/2 Tbsp olive oil
- 1 Tbsp white balsamic vinegar, or white wine vinegar
- 1/2 tsp Dijon mustard
- 1/4 tsp salt or to taste
- 1/2 Cup of crumbled Feta cheese



Directions

1. Sort through wheat berries carefully, discarding any stones. Rinse well under cool running water. Place in a large heavy saucepan. Add four cups of water boil over high heat, then reduce heat, cover and simmer gently for one hour, stirring occasionally. Drain and rinse.
2. In a large bowl toss together the wheat berries, tomatoes, cucumber, green onions and parsley.
3. In a small bowl, stir together the oil, vinegar, mustard and salt. Pour the dressing over the salad and toss to combine.
4. Sprinkle the cheese over the salad and toss again.

Serving suggestions: Serve the salad on a bed of baby spinach leaves with a piece of crusty, whole grain bread. Follow the meal with a medley of sliced fruit.

Beet Salad

Ingredients

1 small bunch beets, or enough
canned beets (no salt added)
to make 3 cups, drained
1/4 cup red wine vinegar
1/4 cup chopped apple
1/4 cup chopped celery
3 tablespoons balsamic vinegar
1 tablespoon olive oil
1 tablespoon water
8 cups fresh salad greens
freshly ground pepper
3 tablespoons chopped walnuts
1/4 cup Gorgonzola cheese, crumbled



Directions

1. Steam raw beets in water in saucepan until tender. Slip off skins. Rinse to cool. Slice in 1/2-inch rounds.
2. In a medium bowl, toss with red wine vinegar. Add apples and celery. Toss together.
3. In a large bowl, combine balsamic vinegar, olive oil and water. Add salad greens and toss.
4. Put greens onto individual salad plates. Top with sliced beet mixture. Sprinkle with pepper, walnuts and cheese. Serve immediately.

Calories: 89

Source: Mayo Clinic

Fresh Corn, Tomato, and Red Onion Salad

Ingredients

- 2 medium ears corn, husk and silk removed
- 1 pint grape tomatoes, halved
- 1/4 medium red onion, thinly sliced
- 1/3 cup fresh basil leaves
- 1 tbsp balsamic vinegar
- 2 tsp extra-virgin olive oil
- 1/4 tsp coarse salt
- 1/8 tsp freshly ground pepper



Directions

1. Holding the tops of the ears of corn over a cutting board, carefully cut the kernels off in strips from top to bottom. Add the tomatoes, onion and basil, and stir to combine.
2. Add the vinegar, oil, salt, and pepper to the vegetables and stir again. Serve immediately or refrigerate for up to 4 hours.

Calories: 100

Source: Prevention.com

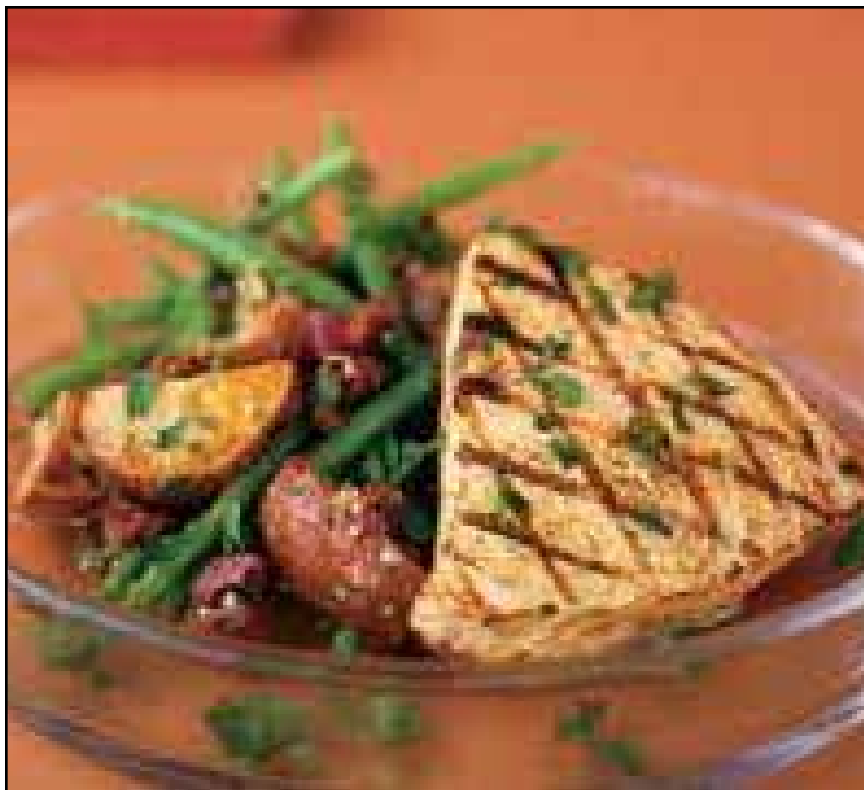
Salad Nicoise

Ingredients

1 pound new potatoes, quartered
3 tablespoons extra-virgin olive oil, plus extra for brushing
1 teaspoon chopped fresh rosemary
1 teaspoon salt
1/4 teaspoon freshly ground black pepper
1/2 yellow onion, finely diced
1/2 pound haricots verts or green beans, trimmed
4 tuna fillets, each 5 ounces
1/2 cup kalamata olives, pitted and chopped
1 clove garlic, minced
6 anchovy fillets, rinsed and chopped
1 tablespoon capers, rinsed and chopped
1 teaspoon chopped fresh thyme
1 tablespoon fresh lemon juice
2 tablespoons chopped fresh flat-leaf (Italian) parsley

Directions

1. Position a rack in the lower third of the oven and preheat to 425 F.
2. In a large baking pan, combine the potatoes, 1 tablespoon of the olive oil, the rosemary, 1/2 teaspoon of the salt and the pepper. Stir the potatoes to coat evenly. Roast for 15 minutes. Stir the potatoes and sprinkle evenly with the onion. Continue roasting, shaking the pan every 10 minutes, until the potatoes are evenly browned and crusty and the onion is caramelized, about 20 minutes longer. Transfer to a large bowl and set aside.
3. While the potatoes are roasting, bring 1 inch water to a boil in a saucepan fitted with a steamer basket. Add beans, cover and steam until tender-crisp, about 5 min. Drain, rinse with cold water and drain again. Set aside.
4. Prepare a hot fire in a charcoal grill or heat a gas grill or broiler. Away from the heat source, lightly brush the grill rack or broiler pan with olive oil. Position the cooking rack 4 to 6 inches from the heat source. Lightly brush the tuna fillets with olive oil



and sprinkle both sides with the remaining 1/2 teaspoon salt. Arrange on the grill rack or broiler pan and grill or broil for 4 minutes. Turn carefully and cook on the other side until grill-marked and firm to the touch, about 4 minutes longer. The cooking time varies depending on the heat of the fire and desired rareness; watch carefully. Transfer to a plate and keep warm.

5. In a large bowl, combine the olives, garlic, anchovies, capers, thyme, lemon juice, the remaining 2 tablespoons olive oil, the roasted potatoes and the steamed beans. Toss gently until well combined. Divide among individual plates and place a tuna fillet on each plate. Garnish with the parsley.

Calories: 399

Source: Mayo Clinic

Egg Salad with Tofu

Greek yogurt and tofu pack protein into this picnic favorite.

Ingredients

- 1 pound extra-firm tofu
- 1 teaspoon reduced-sodium soy sauce
- 2 teaspoon yellow mustard
- 1 teaspoon garlic powder
- 1/4 teaspoon turmeric
- 1 to 2 teaspoons nutritional yeast (available in health food stores)
- Freshly ground pepper to taste
- 1/4 teaspoon salt
- 2 tablespoon flat-leaf parsley, chopped
- 2 scallions, sliced thinly
- 1 grated carrot
- 3 ribs celery, diced
- 5 radishes, chopped
- 2 tablespoons plain 0% fat Greek yogurt
- 3 tablespoons low-fat, vegetarian egg-free mayonnaise



Directions

1. Rinse, drain and mash tofu. Add vegetables.
2. In a separate bowl, mix Greek yogurt, mayonnaise, mustard, nutritional yeast, turmeric, salt and pepper. Add to tofu and vegetables.
3. Mix well and refrigerate for at least a couple of hours before serving.

Calories: 98

Source: Cleveland Clinic

Herb friendly lentil salad

This Mediterranean dish is packed with protein and other nutrients from legumes and vegetables. It's also chock full of herbs.

Ingredients

- 1 15-ounce can of lentils, drained and rinsed
- 3 plum tomatoes, seeded and chopped
- 1 large carrot, grated
- 2 scallions
- 1 rib of celery, chopped
- 1 large red pepper, chopped
- 1/2 large English seedless cucumber, chopped
- 1 tablespoon fresh Italian parsley, chopped
- 1/2 teaspoon cumin (optional)
- 2 teaspoons fresh mint, chopped
- 1 teaspoon fresh thyme, chopped
- 1/4 cup fat-free feta cheese, crumbled
- 2 garlic cloves, minced
- 2 tablespoons lemon juice or red wine vinegar
- 4 tablespoons olive oil
- Salt and pepper to taste



Directions

1. Place all the ingredients except feta cheese and mint leaves in a salad bowl.
2. Put minced garlic, lemon juice or red wine vinegar, olive oil, salt and pepper in a jar or a salad dressing cruet and shake to mix.
3. Pour dressing over lentil salad. Add feta and mint and mix.

Calories: 126

Source: Cleveland Clinic

Low-fat clam chowder

Ingredients

- 1 cup diced carrots
- 1 cup diced celery
- 2 cups diced yellow onion
- 2 cloves garlic, minced
- 2 ounces lean ham
- 1 tablespoon canola oil
- 1 cup diced fresh clams
- 1/2 cup clam juice
- 2 cups low-fat milk
- 1 1/2 cups vegetable stock
- 1 teaspoon minced thyme
- 1 teaspoon minced oregano
- 1 teaspoon fennel seed
- 1 tablespoon black pepper
- 1/2 cup diced red potatoes
- 1/4 cup brown rice, uncooked



Directions

1. Saute carrot, celery, onion, garlic and ham in canola oil over medium heat until lightly brown, about 10 minutes. Add clams and clam juice, continue to cook slowly to reduce volume by half. Add milk, stock, herbs, spices, potatoes and rice.
2. Bring to simmer, reduce heat and cook for 1 hour, until rice is cooked and stew has thickened considerably. Serve.

Dietitian's tip: The addition of brown rice and cooking slowly makes this low-fat clam chowder taste very creamy.

Calories: 262

Source: Mayo Clinic

Roasted Squash Soup

Ingredients

- 1 small butternut squash
- 2 teaspoons canola oil, divided
- 1 cup diced celery
- 1 1/2 cups diced yellow onion
- 1 1/2 cups spinach
- 2 cloves garlic, minced
- 1 cup diced carrot
- 4 cups unsalted vegetable stock
- 1 teaspoon sage
- 1/2 teaspoon nutmeg
- 1 teaspoon black pepper



Directions

1. Cut squash into half-inch pieces, put in a roasting pan and toss with 1 teaspoon of oil. Roast at 400 F for 40 minutes or until brown.
2. Add remaining oil to a large pot. Add vegetables and saute over medium heat until vegetables are lightly browned. Add stock, spices and squash to pot, and simmer for a few minutes.
3. Carefully puree soup with a stick blender, or process soup in batches in a blender or food processor. Return pureed soup to pot and bring back to a simmer. Serve.

Calories: 195

Source: Mayo Clinic

Corn Chowder

Ingredients

- 1 tablespoon vegetable oil
- 2 tablespoons finely diced celery
- 2 tablespoons finely diced onion
- 2 tablespoons finely diced green pepper
- 1 10-ounce package frozen whole kernel corn
- 1 cup peeled, diced, 1/2 inch raw potatoes
- 2 tablespoons chopped fresh parsley
- 1 cup water
- 1/4 teaspoon salt
- Black pepper, to taste
- 1/4 teaspoon paprika
- 2 tablespoons flour
- 2 cups non-fat milk



Directions

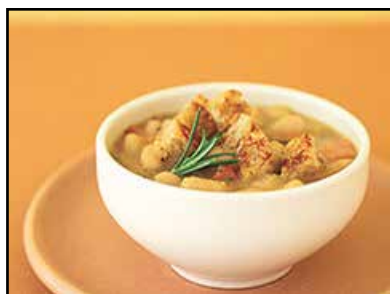
1. Heat oil in medium saucepan.
2. Add celery, onion and green pepper and sauté for 2 minutes.
3. Add corn, potatoes, water, salt, pepper and paprika.
4. Bring to a boil; reduce heat to medium and cook, covered, about 10 minutes or until potatoes are tender.
5. Place 1/2 cup milk in a jar with tight fitting lid. Add flour and shake vigorously.
6. Add gradually to cooked vegetables and add remaining milk.
7. Cook, stirring constantly, until mixture comes to a boil and thickens.
8. Serve garnished with chopped fresh parsley.

Calories: 152

Tuscan White Bean Stew

Ingredients

- 2 cups dried cannellini or other white beans, picked over and rinsed, soaked overnight, and drained
- 6 cups water
- 1 teaspoon salt
- 1 bay leaf
- 2 tablespoons olive oil
- 1 yellow onion, coarsely chopped
- 3 carrots, peeled and coarsely chopped
- 6 cloves garlic, chopped
- 1/4 teaspoon freshly ground black pepper
- 1 tablespoon chopped fresh rosemary, plus 6 sprigs
- 1 1/2 cups vegetable stock or broth



Directions

1. In a soup pot over high heat, combine white beans, water, 1/2 teaspoon salt and bay leaf. Bring to a boil over high heat. Reduce the heat to low, cover partially and simmer until the beans are tender, 60 to 75 minutes. Drain the beans, reserving 1/2 cup of the cooking liquid. Discard the bay leaf. Place the cooked beans into a large bowl and save the cooking pot for later use.
2. In a small bowl, combine the reserved cooking liquid and 1/2 cup of the cooked beans. Mash with a fork to form a paste. Stir the bean paste into the cooked beans.
3. Return the cooking pot to the stove top and add the olive oil. Heat over medium-high heat. Stir in the onion and carrots and saute until the carrots are tender-crisp, 6 to 7 minutes. Stir in the garlic and cook until softened, about 1 minute. Stir in the remaining 1/2 teaspoon salt, the pepper, chopped rosemary, bean mixture and stock. Bring to a boil, then reduce the heat to low and simmer until the stew is heated through, about 5 minutes.
4. Ladle the stew into warmed bowls and sprinkle with croutons. Garnish each bowl with a rosemary sprig and serve immediately.

Calories: 328

White Chicken Chili

Ingredients

2 tablespoons olive oil
1 small white onion, chopped
3 cloves garlic, chopped
2 15-ounce cans navy beans
2 15-ounce cans garbanzo beans
4 cups frozen white corn, thawed
2 (4-ounce) cans diced green chilies
1 15-oz can fat-free, low-sodium chicken broth
1½ teaspoons chili powder
1 teaspoon ground cumin
½ teaspoon white pepper
6 boneless, skinless chicken breasts (3 ounces each), cubed
Salsa (optional)
Chopped cilantro (optional)



Directions

1. Sauté onion and garlic in olive oil in skillet until transparent.
2. Add chicken, and sauté until lightly browned.
3. Turn chicken mixture into large pot, and add remaining ingredients.
4. Simmer uncovered 1 to 2 hours, stirring occasionally.
5. Serve topped with salsa and chopped cilantro, if desired.

Calories: 445

Source: Cleveland Clinic

Chili Con Carne Sin Carne

Ingredients

- 3/4 cup chopped onion
- 2 cloves garlic (minced)
- 3 tablespoons olive oil
- 2 tablespoons chili powder
- 1/4 teaspoon basil
- 1/4 teaspoon oregano
- 1/4 teaspoon cumin
- 2 cups finely chopped zucchini
- 1 cup finely chopped carrot
- 2 28-ounce cans tomatoes (no salt added)
- 1 14.5-ounce can tomatoes, drained and chopped (no salt added)
- 1 15-ounce can kidney beans, undrained
- 2 15-ounce cans kidney beans, drained and thoroughly rinsed
- low fat sour cream (optional)



Directions

1. In a large pot, sauté onion and garlic in olive oil until soft.
2. Mix in zucchini and carrots until well blended. Cook for about 1 minute over low heat, stirring occasionally.
3. Stir in tomatoes, and the 3 cans of kidney beans.
4. Bring to a boil. Add spices. Reduce heat and simmer for 30 to 40 minutes or until thick.
5. Top as desired with chopped onions, tomatoes, lettuce, green peppers, or a dollop of low fat sour cream (not included in nutrition facts)

Calories: 246 for one cup

Source: Brigham & Women's Hospital

Meatless Chili

Ingredients

2 tablespoons olive oil
1 medium onion, chopped
1/3 cup chopped green bell pepper
2 tablespoons chili powder
1 teaspoon ground cumin
1 14½-ounce can Mexican recipe stewed tomatoes with juice
8 ounces frozen veggie (soy) crumbles, thawed
1 cup canned red kidney beans, drained and rinsed
1/4 cup water
1/2 cup 2% shredded cheddar cheese
4 tablespoons low-fat sour cream
salt and pepper to taste



Directions

1. Heat oil in large heavy skillet over medium-high heat. Add soy crumbles, onion and peppers. Sauté until vegetables are tender and soy crumbles are lightly browned (about 5 minutes). Add chili powder and cumin; stir 1 minute.
2. Add tomatoes with juice, kidney beans and water. Cook until slightly thickened, breaking up any large tomato pieces and stirring occasionally, about 5 minutes. Season to taste with salt and pepper.
3. Divide chili between 4 bowls; top with cheese and a dollop of sour cream, and serve.

Calories: 306

Ham and Cheese Sandwich

Ingredients

2 tablespoons fat-free mayonnaise
2 teaspoons Dijon mustard
2 slices rye bread
4 ounces thinly sliced ham
2 slices red onion
1 can (4 ounces) sliced mushrooms, drained and patted dry
2 ounces low-fat Swiss cheese, thinly sliced

Directions

1. Preheat the broiler. Position the rack 4 inches from the heat source. Lightly coat a baking sheet with cooking spray.
2. In a small bowl, mix together the mayonnaise and mustard.
3. Place the slices of bread on the prepared baking sheet. Spread half of the mayonnaise mixture on each slice. Top each with 2 ounces ham, 1 slice onion, 1/2 of the mushrooms and 1 ounce cheese.
4. Broil the open-faced sandwiches until the cheese is melted and slightly browned, about 3 minutes. Serve immediately.

Dietitian's tip: These broiled, open-faced sandwiches are great options for a quick lunch or light dinner. Instead of ham, substitute thinly sliced roasted turkey or beef for a lower-sodium alternative.

Calories: 247

Source: Mayo Clinic

Roasted Red Pepper and Chicken Wrap

Ingredients

- 4 ounces boneless, skinless chicken breast, cut into strips 1/2 inch wide and 2 inches long
- 2 flour tortillas (spinach, garlic and herb, or pesto-flavored), 10-inches in diameter
- 2 Tablespoons hummus
- 1 cup lettuce leaves
- 1/2 cup chopped tomatoes
- 1 roasted red bell pepper, cut into slices



Directions

1. Spray a small nonstick frying pan with cooking spray. Add the chicken and saute over medium-high heat until the chicken is lightly browned and opaque throughout. Set aside.
2. Heat a dry, large frying pan (without a nonstick surface) over medium heat. Add 1 tortilla to the hot pan and heat until softened, about 20 seconds per side. Repeat with the other tortilla.
3. To serve, place a warmed tortilla on each plate. Spread 1 tablespoon of the hummus on the tortilla. Then add half of the chicken, lettuce, tomatoes and roasted pepper to make each wrap. Fold in the sides and the bottom of the tortilla up over the filling, then roll to close. Cut each wrap in half crosswise and serve immediately.

Calories: 350

Tip: To roast red peppers, place the bell peppers on a baking sheet lined with aluminum foil. Broil (grill), turning frequently with tongs until the skin blackens all over, about 10 minutes. Transfer the pepper to a covered bowl or place in a paper bag and close. Let steam until the skin loosens, about 10 minutes. Peel, cover and refrigerate until needed.

Bean and Guacamole wrap

Ingredients

- 1 (6") corn tortilla
- 1/4 cup smashed black beans
- 1/4 cup diced avocado
- 2 Tbsp. salsa



Directions

1. In a small bowl, smash blacked beans until smooth consistency.
2. Spread black beans onto the corn tortilla.
3. Cook in microwave for 45 seconds.
4. Cut avocado into small diced cubes.
5. Top with avocado and salsa.
6. Roll into a burrito and enjoy!

Calories: 195

Source: Cooper Clinic

Grilled portobello mushroom 'burger'

Ingredients

- 4 large portobello mushroom caps,
5 inches in diameter
- 1/3 cup balsamic vinegar
- 1/2 cup water
- 1 tablespoon sugar
- 1 garlic clove, minced
- 1/4 teaspoon cayenne pepper,
optional
- 2 tablespoons olive oil
- 4 whole-wheat buns, toasted
- 4 slices tomato
- 4 slices red onion
- 2 bibb lettuce leaves, halved



Directions

1. Clean mushrooms with a damp cloth and remove their stems. Place in a glass dish, stem (gill) side up.
2. To prepare the marinade, in a small bowl whisk together the vinegar, water, sugar, garlic, cayenne pepper and olive oil. Drizzle the marinade over the mushrooms. Cover and marinate in the refrigerator for about 1 hour, turning mushrooms once.
3. Prepare a hot fire in a charcoal grill or heat a gas grill or broiler. Away from the heat source, lightly coat the grill rack or broiler pan with cooking spray. Position the cooking rack 4 to 6 inches from the heat source.
4. Grill or broil the mushrooms on medium heat, turning often, until tender, about 5 minutes on each side. Baste with marinade to keep from drying out. Using tongs, transfer the mushrooms to a plate.
5. Place each mushroom on a bun and top with 1 tomato slice, 1 onion slice and 1/2 lettuce leaf. Serve immediately.

Calories : 283

Pizza

Ingredients

- 1 12-inch prepared pizza crust, purchased or made from a mix
- 4 garlic cloves, chopped or minced
- 1/2 cup fat-free ricotta cheese
- 1/2 cup dry-packed sun-dried tomatoes, soaked in water to rehydrate, drained and chopped
- 2 teaspoons dried basil
- 1 teaspoon thyme



Directions

1. Preheat the oven to 425 F. Lightly coat a 12-inch round baking pan with cooking spray.
2. Roll out dough and press into the baking pan. Arrange garlic, cheese and tomatoes on top of the pizza crust. Sprinkle basil and thyme evenly over pizza.
3. Bake on the lowest rack of the oven until the pizza crust turns brown and the toppings are hot, about 20 minutes.
4. Cut the pizza into 8 even slices and serve immediately.
5. Dietitian's tip: Unlike their oil-packed kin, dry-packed sun-dried tomatoes must be reconstituted before use. Put them in a bowl and cover with boiling water. Soak until the tomatoes are soft and pliable, about 5 minutes, then drain.

Calories: 170 calories.

Source: Mayo Clinic

French Bread Pizza

Ingredients

- 1 cup diced asparagus
- 1 cup diced Roma tomatoes
- 1 cup diced red bell pepper
- 1 tablespoon minced garlic
- 1 loaf French bread, about 8 inches long, sliced in half and cut into 4-inch sections
- 1 cup pizza sauce
- 1 cup reduced-fat shredded mozzarella cheese



Directions

1. Preheat the oven to 400 F. Lightly coat a baking sheet with cooking spray.
2. In a small bowl, add the asparagus, tomatoes and pepper. Add the garlic and toss gently to coat evenly.
3. Arrange the French bread on the baking sheet. Add 1/4 cup of the pizza sauce and 1/4 of the vegetable mixture to each section. Sprinkle each with 1/4 cup mozzarella cheese. Bake until the cheese is lightly browned and the vegetables are tender, about 8 to 10 minutes. Serve immediately.

Calories: 252

Source: Mayo Clinic

Pasta with spinach and garbanzos

Ingredients

8 ounces farfalle (bow tie) pasta
2 tablespoons olive oil
4 garlic cloves, crushed
1/2 can (19 ounces) garbanzos,
rinsed and drained
1/2 cup unsalted chicken broth
1/2 cup golden raisins
4 cups fresh spinach, chopped
2 tablespoons Parmesan cheese
Cracked black peppercorns, to taste



Directions

1. Fill a large pot 3/4 full with water and bring to a boil. Add the pasta and cook until al dente (tender), 10 to 12 minutes, or according to the package directions. Drain the pasta thoroughly.
2. In a large skillet, heat the olive oil and garlic over medium heat. Add the garbanzos and chicken broth. Stir until warmed through. Add the raisins and spinach. Heat just until spinach is wilted, about 3 minutes. Don't overcook.
3. Divide the pasta among the plates. Top each serving with 1/6 of the sauce, 1 teaspoon Parmesan cheese and peppercorns to taste. Serve immediately.

Calories: 347

Source: Mayo Clinic

Spaghetti Squash

Ingredients

- 1 small spaghetti squash
- 1 large clove garlic, minced
- 1 Tbsp I Can't Believe It's Not Butter, Light
- 1 Tbsp extra virgin olive oil
- 3 Tbsp fresh lemon juice
- 1 oz. fresh parmesan cheese, grated
- 1/2 tsp salt
- 1/4 tsp black pepper
- 4 scallions, thinly sliced



Directions

1. Cook spaghetti squash using one of the methods listed below.*
Meanwhile, combine remaining ingredients in a large bowl and set aside.
2. Using a fork, scoop cooked squash away from shell by scraping from edge to edge to loosen the spaghetti-like strands. Scrape them into the awaiting bowl. Toss lightly to coat. Be careful not to over mix or it will turn to mush.

**Bake: Pierce the whole shell several times with a large fork or skewer and place in baking dish. Cook squash in preheated 375 F oven approx. 1 hour or until flesh is tender.*

**Boil: Heat a pot of water large enough to hold the whole squash. When the water is boiling, drop in the squash and cook for 20-30 min., depending on its size. When a fork goes easily into the flesh, the squash is done.*

**Microwave: Cut squash in half lengthwise; remove seeds. Place squash cut sides up in a microwave dish with ¼ cup water. Cover with plastic wrap and cook on high for 10 to 12 minutes, depending on size of squash. Add more cooking time if necessary. Let stand covered for 5 minutes.*

**Slow Cooker or Crock-Pot: Choose a smaller spaghetti squash (unless you have an extra large slow cooker) so that it will fit. Add 2 cups of water to slow cooker. Pierce the whole shell several times with a large fork or skewer, add to Crock Pot, cover and cook on low for 8 to 9 hours.*

Calories 125

Polenta with Vegetables

Ingredients

- 1 cup coarsely ground cornmeal (polenta)
- 4 cups water
- 1 teaspoon garlic, chopped
- 1 cup sliced fresh mushrooms
- 1 cup sliced onions
- 1 cup broccoli florets
- 1 cup sliced zucchini
- 2 tablespoons grated Parmesan cheese
- Chopped fresh oregano, basil or rosemary, to taste



Directions

1. Preheat the oven to 350 F. Lightly coat a 3-quart ovenproof dish with cooking spray.
2. Combine the polenta, water and garlic in the prepared dish. Bake uncovered until the polenta pulls away from the side of the baking dish, about 40 minutes. The polenta should be moist.
3. While the polenta is cooking, spray a nonstick frying pan with cooking spray. Add the mushrooms and onions. Saute over medium heat until the vegetables are tender, about 5 minutes.
4. In a pot fitted with a steamer basket, bring 1 inch of water to a boil. Add the broccoli and zucchini. Cover and steam until tender-crisp, 2 to 3 minutes.
5. When the polenta is done, top with the cooked vegetables. Sprinkle with Parmesan cheese and herbs, to taste. Serve immediately.

Calories: 151

Source: Mayo Clinic

Tofu, Broccoli, Shiitake Mushroom & Walnut Stir-Fry

Ingredients

3 dried shiitake mushrooms, rehydrated*
2 teaspoons extra virgin olive oil
1 large white onion, cut in half and then quartered
4 garlic cloves, sliced
2 carrots, thinly sliced
2 cups broccoli florets
1 cup sliced shiitake mushrooms
1 lb. water-packed firm tofu, prepared for cooking**, cut into ½-inch cubes
12 walnut halves, roughly chopped
2 tablespoons brown rice miso
Freshly ground pepper
2 cups hot cooked brown basmati rice



Directions

1. Drain the mushrooms, discard the liquid, and chop roughly. Place a wok or large nonstick skillet over medium heat. When the wok is hot, swirl in oil and add onion and garlic. Stir-fry until onion wilts, about 4 min. Add carrots, broccoli, and fresh and rehydrated shiitake. Stir-fry for 2 min.
2. Add the tofu, walnuts, miso and ¼ cup water. Continue to stir-fry for another 1–2 minutes, until the tofu is hot and the vegetables are crisp-tender. Grind pepper to taste over all.
3. Press the hot rice into ½-cup molds. Invert on plates, top with the stir-fry, and serve.

**To rehydrate dried mushrooms, soak in just enough boiling water to cover for about 15 minutes, or until softened. Remove with a slotted spoon. Strain the soaking liquid through a coffee filter to remove sediment.*

*** There are two ways to prepare tofu for cooking. The first is to wrap the tofu in paper towels and press it to remove all of the water. Place a weight on top of a plate placed on the wrapped tofu, changing the paper towels as they become saturated with water. The second is to freeze the tofu in its container. When ready to use, thaw the tofu and squeeze out all the liquid.*

Calories: 410

Chicken Paella

Ingredients

- 1 teaspoon extra-virgin olive oil
- 1 small onion, sliced
- 2 leeks (whites only), thinly sliced
- 3 garlic cloves, minced
- 8 ounces boneless, skinless chicken breast, cut into strips 1/2 inch wide and 2 inches long
- 2 large tomatoes, chopped
- 1 red pepper, sliced
- 2/3 cup long-grain brown rice
- 1 teaspoon tarragon, or to taste
- 2 cups fat-free, unsalted chicken broth
- 1 cup frozen peas
- 1/4 cup chopped fresh parsley
- 1 lemon, cut into 4 wedges



Directions

1. In a large, nonstick frying pan, heat the olive oil over medium heat. Add the onions, leeks, garlic and chicken strips. Saute until the vegetables are translucent and chicken is slightly browned, about 5 minutes.
2. Add the tomatoes and red pepper slices and continue to saute another 5 minutes.
3. Add rice, tarragon and broth and combine well. Bring to a boil. Reduce heat, cover and simmer about 10 minutes.
4. Stir in peas and continue to simmer uncovered until broth is absorbed and the rice is tender, 45 to 60 minutes.
5. To serve, divide onto individual plates. Garnish each with 1 tablespoon parsley and 1 lemon wedge.

Calories: 345

Source: Mayo Clinic

Butternut Squash Enchiladas

Ingredients

2 small butternut squash, peeled and cubed
2 Tbsp. olive oil (divided use)
1 tsp. ground cumin
1/2 to 1 tsp. chili pepper flakes
1/4 cup chopped onion
1 tsp. minced garlic
1/2 cup frozen corn, thawed
12 (6-inch) corn tortillas
2 cups grated reduced-fat Monterey Jack cheese
2 cups grated reduced-fat mozzarella cheese
1 (8 oz.) can salsa verde (such as Herdez brand)
8 ounces plain, fat-free Greek yogurt
1 small avocado, peeled, seeded and cut in chunks
1 cup chopped cilantro leaves plus sprigs for garnish
Salt and pepper



Directions

1. Preheat oven to 400°F. Lightly grease a 13x9x2-inch baking dish.
2. Toss squash with one tsp. olive oil, cumin, chili pepper flakes and salt and pepper to taste. Spread on a rimmed baking sheet and roast for 30 minutes, tossing halfway through cooking time, until tender.
3. Heat remaining tablespoon of oil in a large skillet over medium heat. Add onion and garlic and sauté until tender and fragrant. Mix in squash and corn. Adjust seasoning.
4. Wrap tortillas in paper towel and heat in the microwave on High until soft and pliable, about two minutes. Place two Tbsp. of the squash mixture and one tablespoon of each cheese in each tortilla. Roll up tortillas and arrange seam-side-down.
5. Reduce oven temperature to 350°F. Spoon salsa verde and remaining cheese over enchiladas. Bake until heated through, about 20-30 min.
6. Blend Greek yogurt with avocado and cilantro using an immersion blender. Top each serving of enchiladas with the sauce and garnish with cilantro sprigs.

Calories: 588

Peppers Stuffed with Scalloped Corn

Ingredients

- 4 red or green bell peppers
- 1 tablespoon olive oil
- 1/2 onion, chopped (about 1/4 cup)
- 1 green bell pepper, chopped
- 2 1/2 cups fresh corn kernels, cut from about 4 large ears of corn
- 1/8 teaspoon chili powder
- 2 tablespoons chopped fresh cilantro or parsley
- 3 egg whites
- 1/2 cup fat-free milk
- 1/2 cup water



Directions

1. Preheat the oven to 350 F. Lightly coat a baking dish with cooking spray.
2. Cut the tops off the bell peppers and remove the seeds. Place in the prepared baking dish and set aside.
3. In a medium skillet, heat the olive oil over medium heat. Add the onion, chopped green pepper and corn. Saute until the vegetables are tender, about 5 minutes.
4. Stir in the chili powder and cilantro or parsley. Reduce heat to low.
5. In a small bowl, whisk together the egg whites and milk. Add to the corn mixture and stir. Increase heat and continue stirring until egg whites begin to set, about 5 minutes. The mixture should be moist, not dry.
6. Spoon 1/4 of the corn mixture into each pepper. Add the water to the bottom of the baking dish. Cover the peppers loosely with aluminum foil. Bake until the peppers are tender, about 15 minutes. Transfer to individual plates and serve.

Calories: 255

Source: Mayo Clinic

Mediterranean quinoa a la crockpot

Ingredients

- 1 1/2 cups quinoa
- 3 cups low-sodium chicken broth (or vegetable broth)
- 1 T olive oil
- 1/2 tsp. sea salt
- 1/2 tsp. cinnamon
- 1 1/2 cups baby spinach
- 1 cup baby tomatoes
- 2 oz. low-fat feta cheese



Directions

1. Place rinsed quinoa in the crockpot.
2. Add the chicken broth, oil, sea salt and cinnamon.
3. Cover and cook on low heat for 4-6 hours.
4. Before serving, wilt the spinach in the microwave for just 2-3 minutes and mix it into the quinoa.
5. Mix in the cut up baby tomatoes along with the feta cheese and serve

Calories: 222

Source: Cooper Clinic

Mediterranean Chicken

Ingredients

2 cups cooked brown rice
¼ cup reduced fat Feta cheese
2 Tbsp. fat free cream cheese
1/3 cup diced tomatoes
2 Tbsp. diced fresh basil
½ cup chopped onions
2 Tbsp. olive oil, divided
20 oz. baby spinach
¼ cup chopped walnuts
4 3-oz chicken breasts
2 tsp. poultry seasoning



Directions

1. Combine cheeses, tomatoes and basil. Set aside.
2. Brown onions in 1 Tbsp. olive oil, then add spinach and walnuts. Stir until spinach is wilted.
3. Pound chicken breasts until flat, about ½ inch. Combine cheese and spinach mix. Spread into center of each breast. Roll up chicken tightly and sprinkle with seasoning for color. Cook briefly on stovetop with a little oil, then bake at 375°F for about 35 minutes, or until the center of chicken reaches 185°F.
4. Slice chicken and arrange over rice. Serve with a side garden salad.

Calories: 360

Source: Brigham & Women's Hospital

Brussel Sprouts

Ingredients

- 1 tablespoon extra-virgin olive oil
- 3 shallots, thinly sliced
- 1/8 teaspoon salt
- 1 pound Brussels sprouts, trimmed and cut into quarters
- 1/2 cup low-sodium vegetable stock or broth
- 1/4 teaspoon finely grated lemon zest
- 1 tablespoon fresh lemon juice
- 1/4 teaspoon freshly ground black pepper



Directions

1. In a large, nonstick frying pan, heat 2 teaspoons of the olive oil over medium heat. Add the shallots and saute until soft and lightly golden, about 6 minutes. Stir in the 1/8 teaspoon salt. Transfer to a bowl and set aside.
2. In the same frying pan, heat the remaining 1 teaspoon olive oil over medium heat. Add the Brussels sprouts and saute until they begin to brown, 3 to 4 minutes. Add the vegetable stock and bring to a simmer. Cook, uncovered, until the Brussels sprouts are tender, 5 to 6 minutes. Return the shallots to the pan. Stir in the lemon zest and juice, and the pepper. Serve immediately.

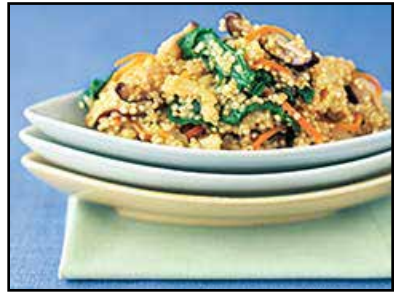
Calories: 104

Source: Mayo Clinic

Quinoa Risotto

Ingredients

- 1 tablespoon olive oil
- 1/2 yellow onion, chopped
- 1 garlic clove, minced
- 1 cup quinoa, well rinsed
- 2 1/4 cups vegetable stock or broth
- 2 cups chopped, stemmed arugula (rocket)
- 1 small carrot, peeled and finely shredded
- 1/2 cup thinly sliced fresh shiitake mushrooms
- 1/4 cup grated Parmesan cheese
- 1/2 teaspoon salt
- 1/4 teaspoon freshly ground black pepper



Directions

1. In a large saucepan, heat the olive oil over medium heat. Add the onion and saute until soft and translucent, about 4 minutes. Add the garlic and quinoa and cook for about 1 minute, stirring occasionally. Don't let the garlic brown.
2. Add the stock and bring to a boil. Reduce the heat to low and simmer until the quinoa is almost tender to the bite but slightly hard in the center, about 12 minutes. The mixture will be brothy. Stir in the arugula, carrot and mushrooms and simmer until the quinoa grains have turned from white to translucent, about 2 minutes longer.
3. Stir in the cheese and season with the salt and pepper. Serve immediately.

Calories: 147

Source: Mayo Clinic

Zucchini boats

These veggie-stuffed boats make a great summer dish and are made with cornbread stuffing, shredded carrots, onion and low-fat cheese. They are also wonderful paired with any meat.

Ingredients

- 2 medium zucchini
- 1/2 Cup shredded carrot
- 1/4 Cup chopped onion
- Vegetable cooking spray
- 1 Cup cornbread stuffing mix
- 3 Tbsp water
- 1/4 Cup shredded reduced-fat sharp cheddar cheese



Directions

1. Halve zucchini lengthwise. Scoop out pulp, leaving ¼-inch thick shells. Discard pulp.
2. Place zucchini halves, cut side down, in a large skillet. Add ½ cup water. Bring to a boil; reduce heat. Cover and simmer for 5 minutes. Drain zucchini on paper towels.
3. Meanwhile, prepare stuffing. Lightly spray a medium saucepan with vegetable spray. Add carrot and onion; cook over medium heat until onion is tender.
4. Stir in stuffing mix and water.
5. Spoon stuffing into prepared zucchini, then sprinkle cheese on top; place them in shallow baking dish.
6. Bake in 350° oven about 20 minutes, or until zucchini are tender and stuffing is heated through.

Calories: 114

Source: Cleveland Clinic

Seasoned Cauliflower

Ingredients

- 1 large head of cauliflower (cut up into small florets, approx. 4 cups)
- 2 cloves of minced garlic
- 3 Tbsp. of lemon juice
- 1 Tbsp. olive oil
- 2 Tbsp. Parmesan cheese
- 1 Tbsp. turmeric
- Sea salt and pepper, to taste



Directions

1. Preheat oven to 400 degrees.
2. Place small florets in a zip lock bag along with the olive oil, lemon juice, turmeric, garlic, salt and pepper. Shake until well coated.
3. Place on flat baking sheet. Sprinkle with Parmesan cheese.
4. Bake for 40 minutes until desired texture.

Source: Cooper Clinic

Vegetable slaw

Directions

1. Use a Microplane or box grater to shave raw zucchini, baby carrots and turnips, onions or shallots, and cauliflower.
2. Toss with pine nuts, crumbled blue cheese, and red wine vinegar.



The varied textures and colors make this healthy side dish pleasing to the eye and palate.

Source: Prevention.com

Yellow Lentils

Ingredients

- 1 teaspoon white or black sesame seeds
- 1 tablespoon olive oil
- 1 shallot, minced
- 1 teaspoon ground ginger
- 1/2 teaspoon curry powder
- 1/2 teaspoon ground turmeric
- 1 cup yellow lentils, picked over, rinsed and drained
- 1 1/2 cups vegetable stock, chicken stock or broth
- 1/2 cup light coconut milk
- 2 cups baby spinach leaves, stemmed and chopped, or 1 cup frozen chopped spinach, thawed
- 1/2 teaspoon salt
- 1 tablespoon chopped fresh cilantro (fresh coriander)



Directions

1. Toast only the white sesame seeds before using. To toast, place the sesame seeds in a small, dry saute or frying pan over medium heat. Cook briefly, shaking the pan often and watching carefully to prevent burning. Remove the seeds from the pan as soon as they begin to turn brown. Set aside.
2. In a large saucepan, heat the olive oil over medium heat. Add the shallot, ginger, curry powder and turmeric and cook, stirring, until the spices are fragrant, about 1 minute.
3. Add the lentils, stock and coconut milk. Raise the heat to medium-high and bring to a boil. Reduce the heat to low, cover partially, and simmer until the lentils are tender but still firm, about 12 minutes. The mixture should be broth-y; add a little water if needed.
4. Stir in the spinach, cover and simmer for about 3 minutes longer. The lentils should still hold their shape. Uncover and stir in the salt. Serve hot, garnished with the cilantro and toasted white or untoasted black sesame seeds.

Calories: 243

Apple berry cobbler

Ingredients

- 1 cup fresh raspberries
- 1 cup fresh blueberries
- 2 cups chopped apples
- 2 tablespoons turbinado or brown sugar
- 1/2 teaspoon ground cinnamon
- 1 teaspoon lemon zest
- 2 teaspoons lemon juice
- 1 1/2 tablespoons cornstarch



For the topping

- Egg white from 1 large egg
- 1/4 cup soy milk
- 1/4 teaspoon salt
- 1/2 teaspoon vanilla
- 1 1/2 tablespoons turbinado or brown sugar
- 3/4 cup whole-wheat pastry flour

Directions

1. Preheat the oven to 350 F. Lightly coat 6 individual oven-proof ramekins or souffle dishes with cooking spray.
2. In a medium bowl, add the raspberries, blueberries, apples, sugar, cinnamon, lemon zest and lemon juice. Stir to mix evenly. Add the cornstarch and stir until the cornstarch dissolves. Set aside.
3. In a separate bowl add the egg white and whisk until lightly beaten. Add the soy milk, salt, vanilla, sugar and pastry flour. Stir to mix well.
4. Divide the berry mixture evenly among the prepared dishes. Pour the topping over each.
5. Arrange the ramekins on a large baking pan and place in oven. Bake until the berries are tender and the topping is golden brown, about 30 minutes. Serve warm.

Low-Fat Raspberry Cheesecake Bars

Ingredients

- 3 tablespoons butter, melted
- 3 tablespoons unsweetened applesauce
- 2 cups graham cracker crumbs
- 2 (8-ounce) packages reduced-fat cream cheese
- 3/4 cup sugar
- 1 egg
- 1/4 cup egg substitute (or 2 egg whites)
- 1 tsp vanilla
- 1 (10-ounce) jar seedless raspberry jam or preserves
- 1 cup fresh raspberries, lightly crushed



Directions

1. Heat oven to 350 degrees.
2. Mix butter, applesauce and graham cracker crumbs and press onto bottom of 13-by-9 inch pan; refrigerate until ready to use.
3. Beat cream cheese in large bowl with mixer until creamy. Add sugar, egg, egg substitute (or egg whites) and vanilla; beat until well-blended.
4. Stir jam in jar until softened; spread evenly onto crust. Top jam with berries, then cream cheese mixture.
5. Bake 30 minutes or until slightly puffed.
6. Cool completely before cutting into bars. Keep refrigerated.

Calories: 165

Source: Cleveland Clinic

Strawberry sorbet

Ingredients

3/4 cup balsamic vinegar
4 cups hulled, halved strawberries
1 tablespoon dark honey

Directions

1. Simmer balsamic vinegar in a nonaluminum saucepan over
2. medium-low heat. Heat until reduced by half.
3. Process strawberries in a blender or food processor until
4. smooth. Pass puree through a fine-mesh sieve over a bowl. Discard solids and add your prepared balsamic reduction plus honey.
5. Stir, cover and refrigerate until cold. Freeze the mixture in an ice-cream maker, according to the manufacturer's instructions. Store in the freezer until ready to serve, up to 2 days.
6. Spoon into individual bowls and garnish with chopped strawberries.



Source: Mayo Clinic