

# NIH News in Health

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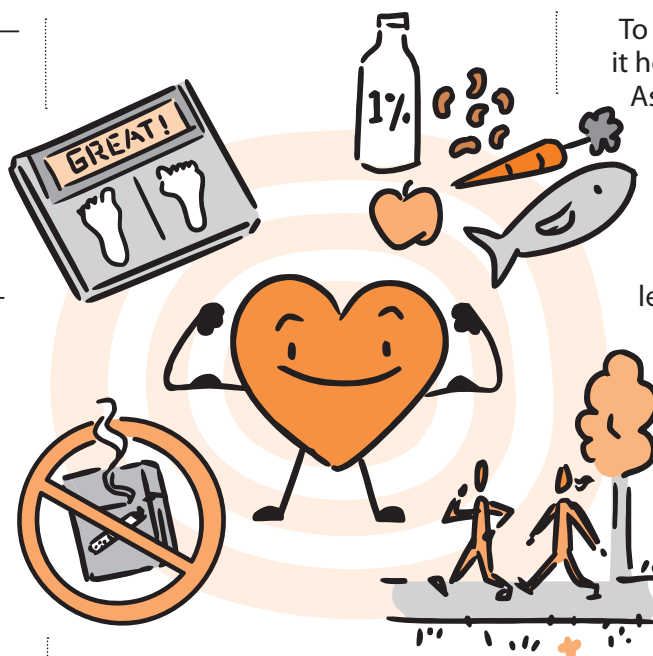
## Love Your Heart Take Steps To Reduce Heart Risks

February is American Heart Month—a time to reflect on the sobering fact that heart disease remains the number one killer of both women and men in the United States. The good news is you have the power to protect and improve your heart health.

NIH and other government agencies have been working to advance our understanding of heart disease so that people can live longer, healthier lives. Research has found that you can lower your risk for heart disease simply by adopting sensible health habits.

To protect your heart, the first step is to learn your own personal risk factors for heart disease. Risk factors are conditions or habits that make you more likely to develop a disease. Risk factors can also increase the chances that an existing disease will get worse.

Certain risk factors—like getting older or having a family history of heart disease—can't be changed. But you do have control over some important risk factors such as high blood cholesterol, high blood pressure, smoking, excess weight, diabetes and physical inactivity. Many people have more than one risk factor. To safeguard your heart, it's best to lower or eliminate as many as you



can because they tend to “gang up” and worsen each other’s effects.

A large NIH-supported study published last month underscores the importance of managing your risk factors. Scientists found that middle-aged adults with one or more elevated risk factors, such as high blood pressure, were much more likely to have a heart attack or other major heart-related event during their remaining lifetime than people with optimal levels of risk factors.

“For example, women with at least 2 major risk factors were 3 times as likely to die from **cardiovascular** disease as women with none or 1 risk factor,” says Dr. Susan B. Shurin, acting director of NIH’s National Heart, Lung and Blood Institute. “You can and should make a difference in your heart health by understanding and addressing your personal risk.”

To tackle your heart risk factors, it helps to know your numbers.

Ask your health care provider to measure your blood cholesterol and blood pressure. Then determine if your weight is in the healthy range.

The higher your cholesterol level, the greater your risk for heart disease or heart attack.

High blood cholesterol itself doesn’t cause symptoms, so you can’t know if your cholesterol is too high unless you have it tested.

Routine blood tests can show your overall cholesterol level and separate levels of LDL (“bad”) cholesterol, HDL (“good”) cholesterol

and triglycerides. All of these blood measurements are linked to your heart health.

High blood pressure (hypertension) is another major risk factor for heart disease, as well as for stroke. High blood pressure is often called the “silent killer” because, like high cholesterol, it usually has no symptoms. Blood pressure is always reported as 2 numbers, and any numbers above 120/80 mmHg raise your risk of heart disease and stroke.

“Scientific evidence is strong that controlling high blood cholesterol

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### Definitions

#### Cardiovascular

The system of heart and vessels that circulates blood throughout the body.

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and high blood pressure prevents cardiac events such as heart attacks," says Dr. Michael Lauer, a heart disease specialist at NIH.

Your weight is another important number to know. To find out if you need to lose weight to reduce your risk of heart disease, you'll need to calculate your body mass index (BMI, a ratio of weight to height). This NIH web page can help: [www.nhlbisupport.com/bmi/bmicalc.htm](http://www.nhlbisupport.com/bmi/bmicalc.htm). A BMI between 25 and 29.9 means that you're overweight, while a BMI of 30 or higher means obesity.

Next, take out a tape measure. A waist measurement of more than 35 inches for women and 40 inches for men raises the risk of heart disease and other serious health conditions. Fortunately, even a small weight loss (between 5% and 10% of your current weight) can help lower your risk.



### Wise Choices Protect Your Heart

- Don't smoke.
- Maintain healthy cholesterol levels and blood pressure.
- Maintain a healthy weight.
- Choose more heart-healthy foods.
- Get and stay active.
- Know your family history.
- Learn the signs that something's wrong.
- Set a good example.

NIH has many tools available to help you aim for a healthy weight, including physical activity tips and a menu planner. To learn more, visit <http://healthyweight.nhlbi.nih.gov/>.

A heart-healthy diet includes a variety of fruits, vegetables and whole grains, as well as lean meats, poultry, fish, beans and fat-free or low-fat dairy products. Try to avoid saturated fat, trans fat, cholesterol, sodium (salt) and added sugar.

NIH's Therapeutic Lifestyle Changes (TLC) and Dietary Approaches to Stop Hypertension (DASH) diets both promote healthy eating. *U.S. News & World Report* named TLC and DASH the top 2 overall diets for 2012.

Regular physical activity is another powerful way to reduce your risk of heart-related problems and enjoy a host of other health benefits. To make physical activity a pleasure rather than a chore, choose activities you enjoy. Take a brisk walk, play ball, lift light weights, dance or garden. Even taking the stairs instead of an elevator can make a difference.

"At least 2 and a half hours a week of moderate-intensity physical activity can lower your risk of heart disease, stroke, hypertension and diabetes—a winner on multiple counts," says Dr. Diane Bild, a cardiovascular epidemiologist at NIH.

If you have diabetes, it's important to keep your blood sugar, or glucose, under control. About two-thirds of people with diabetes die of heart or blood vessel disease. If you're at risk for diabetes, modest changes in diet and level of physical activity can often prevent or delay its development.



### Web Links

For more information about protecting your heart health, see our links online: <http://newsinhealth.nih.gov/issue/Feb2012/Feature1>

If you happen to be a smoker, the best thing you can do for your heart is stop. People who smoke are up to 6 times more likely to suffer a heart attack than nonsmokers. The risk of heart attack increases with the number of cigarettes smoked each day.

The good news is that quitting smoking will immediately begin to reduce your risk, and the benefit in reduced risk will continue to increase over time. Just one year after you stop smoking, your risk will have dropped by more than half.

Beyond controlling your risk factors, you should be alert to certain symptoms and get checked by a doctor. Common signals that something's wrong with your heart include angina—pain in the chest, shoulders, arms, neck, jaw or back—as well as shortness of breath, irregular heart-beat or palpitations (arrhythmia) and fatigue.

Be aware that the symptoms of a heart attack can vary from person to person. If you've already had a heart attack, your symptoms may not be the same if you have another one.

Finally, don't forget that you can influence your loved ones' heart health by setting an example. Do you have children, grandchildren or other young people who look up to you? If you follow a heart-healthy lifestyle, it's more likely that they will, too. Because heart disease begins in childhood, one of the best things you can do for those you love is to help children build strong bodies and healthy habits.

The bottom line is, it's never too late to take steps to protect your heart. It's also never too early. Start today to keep your heart strong. Talk to your doctor about your risk and to create an action plan. Love your heart. ■

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# Grumbling Guts?

## Understanding Irritable Bowel Syndrome

Most of us feel some discomfort in our guts from time to time. It may be because we're nervous about something, or perhaps we ate something that didn't agree with us. But if you regularly feel aches in your abdomen, it might be a sign of a disorder called irritable bowel syndrome.

Irritable bowel syndrome affects about 1 in 5 Americans. It occurs more often in women than men, and begins before the age of 35 in about half the people who get it.

There's no medical test to identify irritable bowel syndrome. Instead, doctors make a diagnosis based on the patient's symptoms. The most common symptoms include bloating and pain in the abdomen, along with changes in bowel habits. People with irritable bowel syndrome may have constipation, diarrhea or both.

Irritable bowel syndrome doesn't lead to cancer or other health problems. But its discomfort can be difficult to live with. The severe or frequent abdominal pain it can bring often leads people to visit a doctor.

Physicians and researchers don't know for sure what causes irritable bowel syndrome. One possibility is that it comes from changes in the way that the brain and the gut communicate. Dr. Emeran Mayer at the University of California, Los

Angeles, is an NIH-funded scientist who's working to find treatments to correct altered brain-gut interactions.

"Most people would agree that stress plays an important role in triggering symptom flares in irritable bowel syndrome," says Mayer.

Many patients first notice symptoms after a stressful event, like losing a loved one or changing jobs. People with irritable bowel syndrome often report higher levels of stress or anxiety. Stress reduction strategies and cognitive behavioral therapy, a type of talk therapy, can help relieve the symptoms of irritable bowel syndrome.

Some researchers suspect that irritable bowel syndrome can be caused by a change in gut bacteria. The gut is usually filled with helpful bacteria, which our bodies need to digest food. But sometimes the types of bacteria can change, like after taking certain medications. For people with this type of irritable bowel syndrome, a supplement of probiotics—a collection of live, healthful bacteria—might help. Probiotics are available as capsules, tablets and powders, and they're found in some dairy foods, such as yogurts with live active cultures. The potential benefits of probiotics, however, are still under study.

Many people with irritable bowel syndrome find that certain foods can



make them feel worse. "There is no specific irritable bowel syndrome diet," says Mayer. "Irritable bowel syndrome patients are generally more sensitive to a variety of foods."

If you have irritable bowel syndrome, try keeping a diary of the foods you eat and how they make you feel. Then, you and your doctor can decide together if you should try making changes to your diet.

Every case of irritable bowel syndrome is unique, so if you have symptoms that disrupt your life, don't suffer in silence. Your doctor can work with you to find the treatment that works best for you. ■



### Wise Choices Signs of Irritable Bowel Syndrome

- Bloating
- Distension and discomfort of the abdomen
- Abdominal pain
- Constipation
- Diarrhea



### Web Links

For more about irritable bowel syndrome, see our links online:  
<http://newsinhealth.nih.gov/issue/Feb2012/Feature2>



# Health Capsules

For links to more information, see these stories online:  
<http://newsinhealth.nih.gov/issue/Feb2012/Capsule1>

## Body Forms “Industrial” Lubricant for Metal Hip Implants

A new study shows that a lubricating layer forms naturally in the joints of metal-on-metal hip implants. This solid layer, made mostly of carbon, is more like an industrial lubricant than joint fluid. The finding may help researchers design longer-lasting metal hips for treating arthritis and other joint disorders.

Arthritis is a painful condition often characterized by swollen joints. Over time arthritic joints can become damaged and too painful to use. When this happens, surgeons resurface or replace the joint with an implant.

Hip implants can be made of several materials, including plastic. But implants with metal ball and socket

parts (metal-on-metal) have become increasingly popular.

All-metal joints aren't designed with lubrication. But in the body, a thin, slippery layer develops between the metal ball and socket. Researchers thought that the layer must be made of proteins, like the fluid in normal joints.

A team of NIH-funded scientists set out to discover what the thin lubricating layer was actually made of. The researchers scraped off and analyzed a bit of the lubricating layer from 7 metal hip implants removed from patients.

To their surprise, the scientists found that the layer was mostly

made of graphitic carbon. They found very little protein at all.

With this knowledge, researchers can now aim to create safer, longer-lasting hip implants by encouraging carbon to stick to the metal joint.

“The results of such research could have important implications for several hundred thousand Americans who undergo hip replacement each year,” says Dr. Stephen I. Katz, director of NIH’s National Institute of Arthritis and Musculoskeletal and Skin Diseases. ■

## Navigating Treatment Options for Addiction

If you know someone struggling to overcome drug abuse or addiction, a new easy-to-read booklet from NIH might help. *Seeking Drug Abuse Treatment: Know What to Ask* can guide you in making informed choices about drug treatment programs—for yourself or a family member.

Treatment aims to help people stop drug use and function well with their family, workplace and community. But it can be difficult to keep patients in treatment long enough to meet that goal. Finding the right treatment for each person is critical.

“Treatment options can vary considerably, and families often don't know where to begin,” says Dr. Nora

Volkow, director of NIH’s National Institute on Drug Abuse. “This booklet highlights the treatment components that research has shown are critical for success, to help people make an informed choice during a very stressful time.”

The booklet lists key questions to ask when searching for a drug treatment program. It describes available medications and evidence-based behavioral therapies, as well as the need for comprehensive, tailored and sustained treatment.

*Seeking Drug Abuse Treatment* is available online at [www.drugabuse.gov/publications/seeking-drug-abuse-treatment](http://www.drugabuse.gov/publications/seeking-drug-abuse-treatment). Free printed copies can be ordered at <http://drugpubs.drugabuse.gov/> or call 1-877-NIDA-NIH (1-877-643-2644). ■



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