



## UNDERSTANDING HEALTH RISKS

### *Improve Your Chances for Good Health*

Health risks can sometimes be confusing, but they're important to understand. Knowing the risks you and your family may face can help you find ways to avoid health problems. It can also keep you from fretting over unlikely threats. Knowing the risks and benefits of a medical treatment can help you and your doctor make informed decisions.

“Understanding health risks is key to making your own health care decisions,” says Dr. William Elwood, a psychologist and behavioral scientist at NIH. “It gives you perspective on potential harms and benefits, so you can make smart choices based on facts and not fears.”

A health risk is the chance or likelihood that something will harm or otherwise affect your health. Risk doesn't mean that something bad will definitely happen. It's just a possibility. Several characteristics, called risk factors, affect whether your health risks are high or low.

**EXERCISE  
& A HEALTHY  
DIET CAN LOWER  
YOUR RISK OF  
DEVELOPING  
HEART DISEASE.**

Your personal health risk factors include your age, sex, family health history, lifestyle, and more. Some risks factors can't be changed, such as your genes or ethnicity. Others are within your control, like your diet, physical activity, and whether you wear a seatbelt.

When you see health statistics, consider the types of people being described. If they're not similar to you, or if the category is very broad, then your risks may be different. A general statement like “More than half of Americans over age 45 will develop heart disease at some point” is based on statistical averages across the entire U.S. population. If you're younger than 45, your heart disease risk will generally be much lower. The more risk factors you have—such as smoking, high blood pressure, or diabetes—the greater your risk. Exercise and a healthy diet, on the other hand, can make your chance of developing heart disease lower than for most other people.

## TALKING ABOUT YOUR HEALTH RISKS

Talking about health risks can seem intimidating. Even doctors sometimes have trouble with risk concepts. That's why NIH supports research to improve how medical staff and others communicate health risks and prevention strategies to patients and the public.

“Math in general is hard for a lot of people. Yet math is often hidden in everyday activities that affect our health,” says Dr. Russell Rothman, a physician and scientist at Vanderbilt University in Nashville. Rothman's research focuses on helping people understand and work with numbers, so they can reduce their risks for diabetes and excess weight, including childhood obesity.

Studies show that the way we hear and understand health statistics can be influenced by how the numbers are described, or how they're “framed.” Different descriptions can affect how clear the information is and also what emotions it stirs. For example, the statement: “More than 20% of Americans will eventually die of cancer” might sound less scary from a different perspective: “Nearly 80% of Americans will not die of cancer.”

To understand the potential risks or benefits of a medical treatment or behavior change, it helps to focus on a math concept called “absolute risk.” Absolute risk is the chance of something happening, such as a health problem that might arise over a period of time. For example, a disease might affect 2 in 100 middle-aged men over their lifetimes. If a certain drug lowers their risk for the disease to 1 in 100, the drug has reduced their absolute risk by 1 person in 100, or 1%. Another way to think of it is that you'd need to treat 100 people with this medicine to prevent just 1 additional person from getting the disease.

Often, however, you might hear numbers that use a related concept called “relative risk.” Relative risk compares the absolute risks of one group to another. In the example above, you could also say that the drug reduced the risk of disease by 50%, since 1 is half of 2. Looking at relative risk alone, you may mistakenly think that the drug is highly effective.

## Asking Your Doctor About Health Risks

- What are my personal health risks? Are these risk over my lifetime or over a shorter period?
- What steps can I take to reduce my health risks? (such as through exercise or a healthy diet)
- What are my options? (for treatments, screening tests, or making healthy changes)
- What will the results of this test or therapy tell us about my risks?
- What are possible benefits and side effects? What are the chances these might affect me?

Speak up if there's something you don't understand. It's the health care provider's job to explain health risks in a way that makes sense to you.





## PROSTATE PREDICAMENTS

### *When Bladder Problems Are Pressing*

Many men develop urinary problems as they get older. They might find it hard to urinate, have a strong and sudden urge to “go,” be unable to hold it in, or wake up often at night to urinate. These symptoms may signal a bladder issue. But they can also be signs of a prostate problem. Identifying the right condition is key for treatment and symptom control.

The prostate gland tends to get larger as men get older. This walnut-shaped gland sits just below the bladder and surrounds the urethra, the tube that carries urine out of the bladder. If the prostate gets too large, it can narrow or

even block the urethra and make it hard to pass urine.

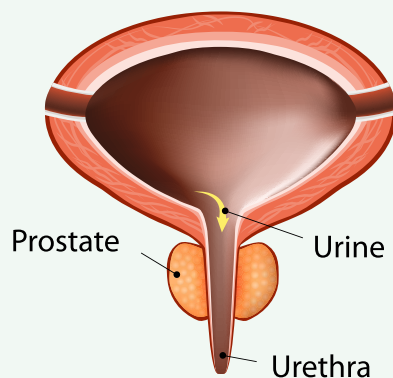
Three prostate issues that can cause urinary symptoms are an enlarged prostate (called BPH, or benign prostatic hyperplasia), inflammation (called prostatitis), and prostate cancer. Some of the symptoms can be similar. A thorough medical exam and testing are key to diagnosing and treating the problem.

For men older than 50, BPH is the most common prostate issue. “Nearly half of men over 50 have lower urinary tract symptoms related to BPH,”

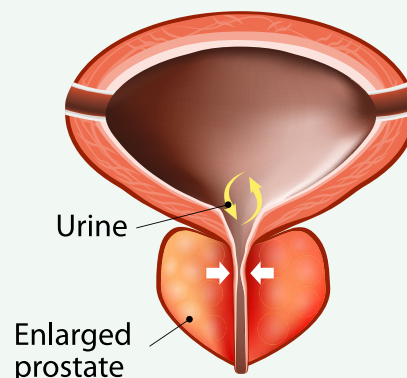
says Dr. Ziya Kirkali, a prostate disorder specialist at NIH. “This number gets to about 90% in men aged 80 years or older.” Some men eventually find their symptoms troubling enough to need treatment. Drugs or surgery can often relieve symptoms associated with BPH. In extreme cases, BPH can lead to urinary tract infections, bladder stones, or kidney failure if left untreated.

Prostatitis is the most common prostate problem for men under age 50. It’s sometimes caused by bacterial infections and can be treated with antibiotics. Symptoms of bacterial prostatitis can include

### NORMAL PROSTATE



### PROSTATITIS



fever, chills, or body aches along with pain and urinary symptoms such as the inability to urinate, going to the bathroom frequently, and leaking or dribbling urine. Seek immediate medical care if you have a sudden onset of these symptoms, or if you cannot urinate at all.

Most often, the cause of prostatitis is unknown—a condition called chronic prostatitis. “Chronic prostatitis, or chronic pelvic pain syndrome, is seen in about 10–15% of the U.S. population,” explains Kirkali. “It’s very bothersome, and it’s a chronic condition that comes and goes.” Chronic prostatitis can cause pain or discomfort in the groin or lower back. Treatment may require a combination of medicine, surgery, and lifestyle changes.

Few men have symptoms of prostate cancer, although some

precancerous or cancer cells may be present. “Prostate cancer may not cause any symptoms at all,” Kirkali explains. “If it does, the urinary symptoms are similar to BPH.”

In fact, more than half of all American men have some cancer cells in their prostate glands by the age of 80. It may take 10, 20, or even 30 years before a prostate tumor gets big enough to cause symptoms. Most of these cancers never pose a problem or become a serious threat to health. Your doctor can help you determine whether treatment is right for you.

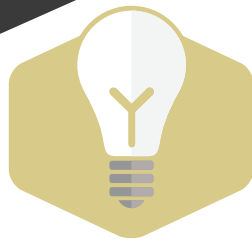
Don’t let prostate issues take over your life. Talk with your doctor if you have problems urinating or feel discomfort in your pelvic area. Getting the right treatment can help improve your quality of life.

### IS YOUR PROSTATE THE PROBLEM?

See your doctor if you have any of these symptoms:

- » Urinate 8 or more times a day
- » Blood in your urine
- » Dribbling at the end of urination
- » Trouble emptying your bladder completely
- » Unable to delay urination
- » Wake up often to urinate at night
- » Trouble starting or keeping a urine stream
- » A weak urine stream
- » Can’t urinate
- » Urine with unusual color or odor
- » Pain in your belly or groin area when urinating

If you can’t urinate at all, seek medical care right away.



# TakeCharge

WELCOA'S SELF-CARE BULLETIN



## DON'T TOSS THE FLOSS!

### *The Benefits of Daily Cleaning Between Teeth*

You may have seen or heard news stories suggesting that you can forget about flossing, since scientists lack solid evidence that you'll benefit from cleaning between your teeth with a sturdy string. But many dentists may beg to differ. They've seen the teeth and gums of people who floss regularly and those who haven't. The differences can be striking.

"Every dentist in the country can look in someone's mouth and tell whether or not they floss," says Dr. Tim Iafolla, a dental health expert at NIH. Red or swollen gums that bleed easily can be a clear sign that flossing and better dental habits are needed. "Cleaning all sides of your teeth, including between your teeth where the toothbrush can't reach, is a good thing," Iafolla says.

If dentists—and maybe even your personal experience—suggest that regular flossing keeps your mouth healthy, then why the news reports? It's because long-term, large-scale, carefully controlled studies of flossing have been somewhat limited.

#### THE SCIENCE ON FLOSSING

Researchers have found modest benefits from flossing in small clinical studies. For instance, an analysis of 12 well-controlled studies found that flossing plus toothbrushing reduced mild gum disease, or gingivitis, significantly better than toothbrushing alone. These same studies reported that flossing plus brushing might reduce plaque after 1 or 3 months better than just brushing.

But there's no solid evidence that flossing can prevent periodontitis, a severe form of gum disease that's the leading cause of tooth loss in adults. Periodontitis can arise if mild gum disease is left untreated. Plaque may then spread below the gum line, leading to breakdown of bone and other tissues that support your teeth. Periodontitis develops slowly over months or years. Most flossing studies to date, however, have examined only relatively short time periods.

Another research challenge is that large, real-world studies of flossing must rely on people accurately reporting their dental cleaning habits. And people tend to report what they think is the "right" answer when it comes to their health behaviors—



whether flossing, exercising, smoking, or eating. That's why well-controlled studies (where researchers closely monitor flossing or perform the flossing) tend to show that flossing is effective. But real-world studies result in weaker evidence.

"The fact that there hasn't been a huge population-based study of flossing doesn't mean that flossing's not effective," Iafolla says. "It simply suggests that large studies are difficult and expensive to conduct when you're monitoring health behaviors of any kind."

While the scientific evidence for flossing benefits may be somewhat lacking, there's little evidence for any harm or side effects from flossing, and it's low cost. So why not consider making it part of your daily routine?

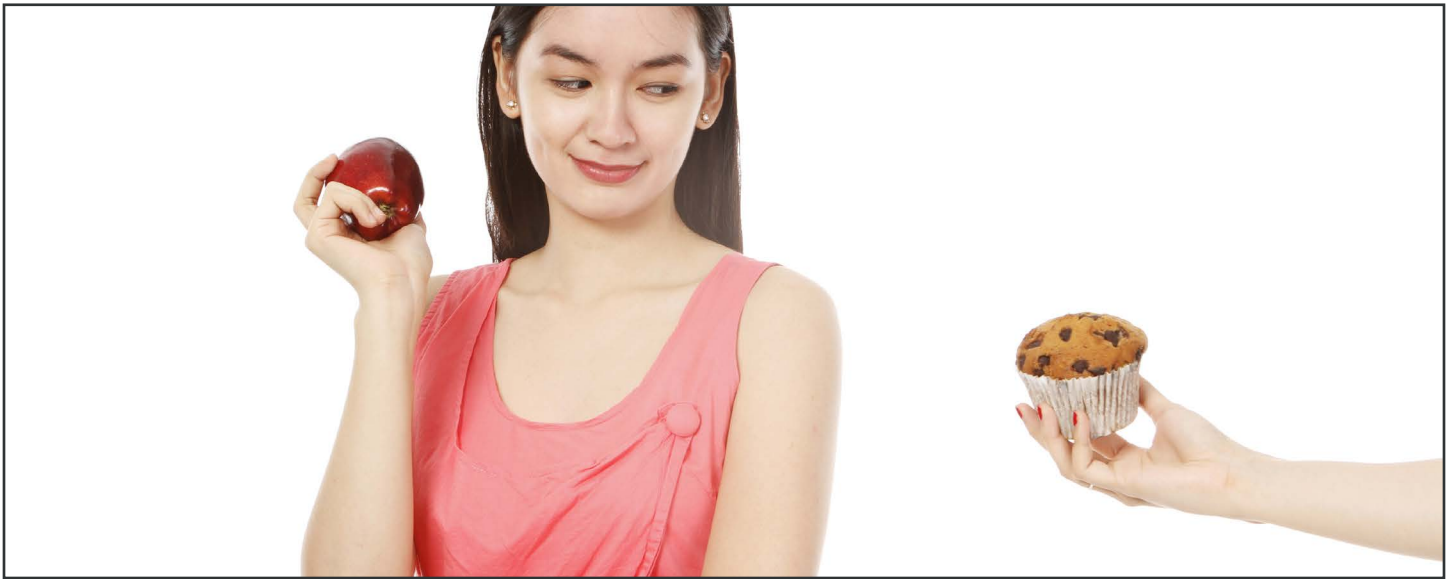
Talk to your dentist if you have any questions or concerns about your teeth or gums. If flossing is difficult, the dentist may recommend other ways to remove plaque between teeth, such as with a water flosser or interdental cleaners. "If you need help learning how to floss, or if you don't think you're doing it right, your dentist or hygienist will be happy to show you how," Iafolla says. "It helps to know the proper technique."

## DAILY CARE FOR TEETH AND GUMS

There's a right way to brush and floss your teeth.

- Gently brush your teeth on all sides with a soft-bristle brush and fluoride toothpaste. Use small circular motions and short back-and-forth strokes.
- Brush carefully and gently along your gum line.
- Lightly brush your tongue to help keep your mouth clean.
- Clean around your teeth with dental floss. Work the floss gently between the teeth until it reaches the gumline.
- Curve the floss into a C shape against one tooth and slide it into the space between the gum and the tooth. Move the floss up and down. Do this for both sides.
- If you have trouble flossing, a floss holder or other cleaning device may help.
- Rinse after you floss.

If you're unsure, ask your dentist to show you the right way to floss.



## CURB YOUR EATING

*Help Your Brain Fight the Urge to Splurge*

Ever tried to eat just one potato chip, or take just one bite of chocolate cake? It may feel impossible. A little nibble triggers an urge to eat more. Some people feel driven to keep eating to the point where the food's no longer enjoyable. You know the resulting weight gain will harm your health. So why do you keep eating when it's not in your best interest?

Out-of-control behaviors around food can look and feel remarkably similar to an addiction to drugs and other substances. In fact, imaging studies have shown that addictive drugs can hijack the same brain pathways that control eating and pleasurable responses to foods.

"There's an addictive element to foods—especially high-fat, high-sugar foods—that drives many of us to overeat," says Dr. Nora Volkow, director of NIH's National Institute on Drug Abuse. She's been studying the brain's role in drug addiction and obesity for more than 20 years. Volkow and other scientists have found that high-calorie foods, like addictive drugs, can trigger the brain's reward system, releasing brain chemicals such as dopamine that make you feel terrific. So it's natural to want more. In fact, wanting more helped early humans survive.

"Our brains are hardwired to respond positively to foods that

have a high content of fat or sugar, because these foods helped our ancestors survive in an environment where food was scarce," Volkow says. "In today's society, though, highly rewarding foods are everywhere. And our brain's reward system for foods is now a liability."

Seeing, smelling, tasting, or even hearing certain cues—from food ads on the radio to the smell of cinnamon buns in a shopping mall—can make us crave fattening foods when we're not even hungry. Brain studies show that food cues can be especially strong in people who are obese or at risk for weight gain. In one NIH-funded study, volunteers who had a



heightened brain response to a sip of a milkshake when they weren't hungry were more likely to gain weight a year later.

While some brain areas drive us to seek sweets and fatty foods, other regions at the front of the brain can help us control our urges. We can help our "rational" brain regions take control by avoiding tasty temptations and developing healthy habits.

"Each of us should be aware if there are certain foods that we can't stop eating once we start. Avoid having them at home. Don't buy them or start eating them, because that might trigger binge eating," Volkow says.

Make healthy eating a part of your everyday routine by swapping unhealthy habits with healthy ones. Eat fruit instead of cookies as a daily dessert, or have a mid-day snack of crunchy carrots instead of potato chips. Instead of walking directly to the refrigerator after work, take a walk through your neighborhood. Over time, healthy habits can become wired in your brain. You'll do them without even thinking.

"Childhood and teen years are ideal times to develop healthy habits," Volkow says. "Healthy eating habits will help protect them in the future against the diseases associated with obesity."

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## CONTROL YOUR EATING

- » **Stick to a shopping list.** It helps to shop when you're not hungry.
- » **Remove temptation.** Don't bring high-fat or sugary foods into your home.
- » **Change your surroundings to avoid overeating.** For example, don't eat while watching TV.
- » **Use smaller plates.** We tend to eat most of what's on our plates, no matter the size.
- » **Don't reward successes with food.** Choose other rewards you'll enjoy, like a movie, a massage, or personal time.
- » **Seek help.** Ask friends and family for support. Consider enrolling in a class or program.
- » **Forgive yourself if you overeat.** We all have occasional setback

