

The Whole-Family
Guide to a
Healthy
Heart

Here's everything you and your loved ones must know. (Surprise: You each need something different!)

BY LINDA MARSA

Cindy Steger

Age: 49

"My doctors and I missed the warning signs of my heart attack. But that's not unusual—I've met lots of women with similar stories."

PHOTOGRAPHED BY MARTIN SIMON



It was oppressively hot that Sunday evening in August 2004 when Cindy Steger finished a 5K racewalk. She'd put in a good time, but suddenly she felt dizzy and nauseated and broke out in a sweat. I must be dehydrated, she thought, and went home to sleep it off.

By Tuesday, she felt well enough to push through her usual two-and-a-half-mile walking workout—until she got home, where a wave of weakness made her lie down on the foyer floor. But when she called her doctor's office, he was booked solid, and her symptoms didn't seem to strike anyone as terribly worrisome.

Steger wasn't too concerned, either. Her brother and father had died of heart disease, but the 49-year-old federal investigator, who lives with her husband in Williamsburg, Virginia, kept her weight in check, watched what she ate, and worked out hard and often. Besides, five months earlier, when she'd been feeling light-headed and tired, she'd undergone a treadmill stress test, and had been given a clean bill of health. That was a nearly fatal mistake. By Thursday, when exertion sent shooting pains up Steger's arms, another doctor admitted her to the hospital. Tests showed she had suffered a heart attack. Deprived of oxygen for days, part of her heart muscle had died.

Unfortunately, Steger's experience isn't unusual. Although experts have warned for years that heart attack symptoms in women can be subtle and easy to miss, studies show that doctors are still slow to make the diagnosis. To make matters worse, standard tests that

should warn of trouble sometimes fail to detect blood vessel obstruction when they're used in women.

The big news about heart health in the past few years: Women need to pay attention to their own special risks. And so do men. (The sudden death of newsman Tim Russert last year, at the young age of 58, sent shivers down the spines of men across the country.) Surprisingly, even children and teens need to be aware—or at least the parents who want to keep them safe do. A few months ago, a shocking study suggested that as children pile on the pounds, they're putting stress on blood vessels and ratcheting up the likelihood of cardiovascular problems in the future.

Thankfully, as research has revealed the different vulnerabilities of each member of the family, scientists have also made great leaps in figuring out the specific prevention strategies and diagnostic tools that work best for men, women, and children. So now, more than ever, when it comes to the health of your heart, knowledge is your best protection. You might even say it's your life's blood.

What Men Need to Know

I don't belong here. That was Brian Bishop's first thought when he awakened in the cardiac intensive care unit at the hospital near his home in Pelham, New Hampshire. Sure, he was overweight—okay, very overweight. But he was just 28 years old and had never been seriously ill. Yet there he



Brian Bishop

Age: 32

“When I woke up in the ICU I made a promise to myself: I would never return. I'd do whatever it took to stay out of that place.”

was, surrounded by frail patients at least four decades older.

The night before, Bishop had felt achy and dizzy. He figured it was just the flu, but when he started shaking uncontrollably, he called 911. When the doctor in the emergency department told him he was having a heart attack,

Bishop was incredulous. “I grabbed him by the lapels and said I didn't believe him. I was too young!” The head of cardiology set him straight. “He told me, ‘It's really up to you whether you want to live or die,’” Bishop recalls. “That got my attention.”

Bishop was wheeled into the OR,

where surgeons inserted a small mesh tube called a stent to open his blocked artery. The operation saved his life, but what happened to him is everyone's nightmare: the patient with no family history of heart disease, whose first symptom is a massive heart attack. According to the American Heart Association (AHA), at least half of the people who die suddenly from coronary heart disease each year had no clue they were sick.

That fact has led to a widespread misconception: that half of all heart attacks strike out of the blue. Not true, insists cardiologist Jennifer Mieres, MD, a spokesperson for the AHA. A 2004 study of more than 29,000 people found that at least 90 percent of

first heart attacks could be attributed to well-known problems like high cholesterol or diabetes. "If you look closely," says Dr. Mieres, director of nuclear cardiology at New York University School of Medicine, "you'll almost always find a risk factor that was undiscovered, ignored, or not adequately treated."

That was true for Bishop. A jock in college, he'd piled on 80 pounds from eating on the run, not exercising, and working 24-7 during Boston's commercial real estate boom in the early 2000s. When he finally had his cholesterol checked, *after* he almost died, his numbers were off the charts. His so-called bad cholesterol, or LDL, was over 200 mg/dl (the riskiest category starts

at 190), while his artery-clearing HDL cholesterol was 18 mg/dl (for men, 40 or above is optimal).

Bishop was unaware of his risk because he hadn't been to a doctor in years. Men are much more likely than women to skip checkups, says cardiologist J. James Rohack, MD, president-elect of the American Medical Association (AMA), so they miss out on screenings like cholesterol tests. "We see it every day," says Stephen Nicholls, MD, a cardiologist at the Cleveland Clinic in Ohio. "Men have risk factors that

The Numbers to Watch

Chances are, when you think of heart risk, you do a quick mental review of your cholesterol levels. Those numbers are important, but others are key as well if you want to whittle away your danger.

Total cholesterol should be under 200 milligrams per deciliter (mg/dl).

LDL should be under 100 mg/dl.

HDL should be above 50 mg/dl for women, and above 40 for men.

Triglycerides should be under 150 mg/dl.

Fasting blood sugar should be under 100 mg/dl.

Blood pressure should

be no higher than 120/80 mmHg.

BMI shouldn't be higher than 25. If the body mass index—your weight-to-height ratio—tops that figure, heart disease risk nearly doubles. Over 29, and the risk triples.

Waist circumference should be 35 inches or less for women and no more than 40 inches for men.

The Tests to Get (and a few to consider)

A lot of flashy cardiovascular tests have been in the news lately, including computerized X-ray "snapshots" that can give a remarkably detailed picture of your heart and its vessels. But most heart experts say that the place to start is with a few simple tests, plus a family history. For most people, that old-fashioned combo will yield enough information to get an accurate sense of the odds of developing heart disease within the next decade.

The Basics

Your physician will ask you about your **family history**. If your father developed heart disease before age 55, or your mother before age 65, it approximately doubles your own risk. Siblings count too. If your brother or sister has premature heart disease, you're twice as likely to have dangerous plaque buildup.

Your doctor will watch your **blood pressure**—and your **blood sugar**, too, because diabetes roughly doubles the odds of heart disease. Periodically, you'll need a **fasting lipid blood test** to gauge levels of three blood fats. **LDL** (low

density lipoprotein) cholesterol builds up in the inner walls of blood vessels and is one of the ingredients in artery-narrowing plaque; **HDL** (high density lipoprotein) cholesterol clears excess cholesterol from the arteries, dumping it into the liver for disposal; and **triglycerides**, a type of fat, provide your body with energy but can also make blood cells clump together, increasing odds of a clot.

Each measurement is important, but so are certain combinations. **Metabolic syndrome**, a condition in which the body doesn't handle insulin properly, doubles your odds of a heart attack. Diagnosis is based on the presence of three of the following factors: abdominal obesity, high triglycerides, low HDLs, high blood pressure, and elevated blood sugar.

Extras That May Help

Unless you have symptoms, insurance may not cover any tests beyond the standard ones. Still, you may feel fine yet worry about your risk factors, like elevated cholesterol or a fam-

ily history. Many experts say that these promising tests can sometimes give important information:

High-sensitivity C-reactive protein test CRP is a protein manufactured by the liver in response to inflammation. The evidence is building that inflammation may be as much of a villain in heart disease as high cholesterol, so this simple and relatively inexpensive blood test (\$40 to \$60) may soon become a standard part of risk evaluation. Results above 3 mg/dl are considered high risk, though other illnesses or simply being overweight can also raise levels.

Ankle-brachial index For this test, a doctor takes your blood pressure at your arm and your ankle. If the pressure at your ankle is appreciably lower, it suggests clogged arteries. The results appear to be particularly useful for women, moving a substantial percent from a low-risk category to a higher-risk one. But be aware: Cost can range from about \$100 to over \$300 and may not be covered by insurance; also, not all doctors have the necessary equipment.

they're unaware of, and then they suffer a premature heart attack."

Bishop was young for a heart attack victim (while men tend to develop heart disease 10 to 15 years earlier than women, they don't enter the red zone for heart attack risk until age 45). But he was otherwise typical of a man heading for cardiovascular calamity. He had a major gut, for instance. Males tend to collect fat around their middles, which is much more dangerous than the pear-shaped pattern common among women. "Fat cells in the belly do more damage because they release fatty acids and other substances that travel directly

The Best Rx: Exercise

When it comes to preventing heart disease, regular exercise is one of the most powerful tools at your disposal, experts say—as potent as statin drugs. Women who exercise briskly at least three hours per week slash their risk of heart attack by 30 to 40 percent, according to the ongoing, massive Nurses' Health Study.

Heart-pumping aerobic exercise lowers bad cholesterol while raising the good kind, demolishes triglycerides, and prevents plaque from accumulating inside arteries. It also combats dangerous abdominal fat. But you don't need to join a gym. Studies show that exercise is just as effective when done in discrete chunks throughout the day—climbing the stairs at work, taking a fast walk at lunch, or mowing the lawn.

to the liver," says Dr. Rohack. Indeed, a man with a waist bigger than about 40 inches is twice as likely to die prematurely as a man whose waist is less than about 34 inches, a study of more than 350,000 people found last year. (For women, a waist of more than 35 inches should be a red flag.)

Bishop also snored. That trait, much more common in men, isn't just an insomnia-inducing nuisance for their spouses—it often signals a dangerous condition called sleep apnea. People with the disorder (two thirds of them male) stop breathing for 10 to 30 seconds or more at a stretch during sleep, up to 400 times each night. The loss of oxygen kills off brain cells in regions that regulate blood pressure, says Ronald M. Harper, PhD, a neurologist and sleep apnea expert at UCLA's David Geffen School of Medicine. That can trigger hypertension or wide swings in blood pressure, which can lead to a stiffening of blood vessels.

Still, if men are more likely to be stricken with heart disease—at least until age 65, when women catch up—they have an advantage when it comes to dealing with the problem. Lifestyle changes (adopting a healthy diet, getting out for regular exercise, avoiding tobacco, losing weight) are the first line of defense, even if drugs are needed, too. And once men make up their minds, experts say they shed excess pounds more easily than women, thanks to a faster metabolism.

"I threw out everything in my kitchen—cookies, crackers, packaged foods—and started reading labels,"

The Vitamin Your Heart Needs

A recent analysis of more than 1,700 volunteers suggests that simply getting enough **vitamin D**—the "sunshine vitamin"—could halve your risk of heart disease. People who were D-deficient were twice as likely to have a heart attack

within two years as those with recommended blood levels of the vitamin, the researchers found. Your skin makes the vitamin when it's exposed to sunlight, but because studies suggest that up to half of adults in the United States have sub-par lev-

els, many vitamin D researchers say a supplement is smart insurance. Current guidelines call for 400 IU daily from food, sun, or supplements for kids, and up to 600 IU for adults. Even better, D researchers say: 800 to 1000 IU daily.

Bishop says. He and his wife began walking a mile every night with their dog; then he added an hour, then two, on a stationary bike. In a little over a year, he dropped 112 pounds and trimmed his waist from 49 inches to less than 31. Today, four years after his heart attack, he regularly competes in triathlons. He's on only a low dose of a statin drug, but his bad cholesterol is down and the good kind is up. So is his outlook. "After my heart attack, I thought my life was over. I was afraid to walk around the block in case I gave myself another heart attack," he says. "Knowing what to do changed my life. This isn't rocket science—people just need to be motivated."

What Women Need to Know

By the time Cindy Steger's heart attack was finally diagnosed, she was in bad shape. She had one thing going for her, though: Because she'd been an avid exerciser, her body had been silently compensating for the gradual obstruction of her blood vessels by

shunting blood to smaller veins. That "collateral" vascular network was a lifesaver when a clot blocked her artery. "My cardiologist told me that if I hadn't led the kind of lifestyle I did, I wouldn't have survived," she recalls.

Though Steger's heart lost about 20 percent of its power in the attack, she quickly began pushing herself to get back into shape. Now, while she still gets winded easily, she's back to competing in racewalks. But her story highlights several of the special dangers women face when it comes to their heart. First is ignorance—both their own and that of doctors. In a 2004 study, fewer than one in five physicians knew that more women than men die each year from heart disease. Even in the emergency room, women wait longer than men for an EKG, and are less likely to get blood-thinning drugs.

Making matters worse, the gold standard test used for people complaining of chest pain is less reliable in women. The coronary angiogram—in which dye is injected into the

heart's arteries and an X-ray is taken—does a good job of detecting blockages. But it turns out that while men with heart disease generally get concentrated buildups of plaque, women's artery-clogging muck is often more diffuse and therefore less noticeable. What's more, their smaller coronary arteries—the twigs on their arterial tree—can fail to dilate when they should, further restricting blood flow. As many as 3 million American women suffer from this problem, according to cardiologist C. Noel Bairey Merz, MD, at Cedars-Sinai Medical Center in Los Angeles. So even if a woman gets an all clear from an angiogram, she should get treatment if she's having symptoms.

There are also some special considerations for the woman who's healthy and wants to make sure she stays that way. First, she shouldn't smoke—no one should, but the habit is even harder on a woman's heart than it is on a man's. And if a basic check-up leaves her uncertain about her level of risk, she might want to ask her doctor for a special test called an ankle-brachial index (ABI), says Ezra Amsterdam, MD, professor of medicine at the UC Davis School of Medicine.

It's a simple exam: A doctor just measures blood pressure at the ankle and the arm and compares the results. If the pressure's lower at the ankle, it suggests that blood is having a hard time getting through sludged-up or stiff vessels. Why it's worth doing: Conventional risk factors sometimes fail to identify women heading for



Cheryl Bland

Age: 43

“When we switched to turkey burgers—that was hard for the kids. But now we’ve figured out how to make old favorites in a healthy way.”

The Diet That Keeps the Heart Healthy

Your taste buds don't have to suffer for your heart's sake: Studies show that a Mediterranean-style diet, with its emphasis on monounsaturated fats (found in olive oil, walnuts, and even dark chocolate), is actually better for your cardiovascular health than low-fat eating. How

much good can you do yourself? One study of more than 2,000 seniors in 11 countries found that those who ate Mediterranean style were nearly 30 percent less likely to die of cardiovascular disease. (They cut their risk of dying of any cause by 26 percent.)

What's crucial:

PLENTY OF

Whole grains
Fruits and vegetables
Nuts, legumes, fish, and poultry for protein
Olive oil as a fat source

VERY LITTLE

Refined grains
Red meat
Sugar-sweetened beverages

heart trouble, and adding the ABI can help, an international review of studies found last year. (The ABI also helps spot men at risk but doesn't make as big a difference.)

Finally, women who find that they are at risk should talk to their doctor about taking a statin. That decision has long been difficult for women: Even though these top-selling cholesterol busters have helped millions of high-risk men reduce LDL by 30 to 50 percent, halt the buildup of plaque, and slash the danger of heart attack and death, there's been scant evidence that they help high-risk women.

But a massive study known as the JUPITER trial may sway opinion. Involving nearly 18,000 volunteers from 26 countries, the study tested the idea that statins might help people whose blood tests showed increased levels of inflammation, even if their cholesterol levels were normal. The double-barreled results: Lowering levels of a protein called CRP, or C-reactive pro-

tein, a marker of inflammation, seems to be protective even when cholesterol levels are okay. And both women and men benefit: Indeed, statins halved the risk of cardiovascular disease. However, the volunteers were followed for only a couple of years, on average, and the study can't guarantee the long-term safety of the approach. So it's worth noting that a healthy diet and exercise also reduce cholesterol and CRP.

What Parents Need to Know

When Cindy Miller of Holly, Michigan, overhauled her family's diet and lifestyle in early 2007, the 38-year-old emergency room technician was doing it to protect her own health: She'd been diagnosed with type 2 diabetes. But the biggest beneficiary was her son Austin. Then nine years old, Austin was less than five feet tall—yet weighed 170 pounds. He looks very different today.

Like the rest of the family, Austin traded in pizzas and candy bars for a diet heavy on fruit and vegetables. He runs and is on a wrestling team, and while he's shot up three inches, he's actually shed 45 pounds.

"In school they teach us about healthy choices, but kids are given bad food choices all the time," he says. "I don't miss all the stuff I used to eat, and I can swim faster and run faster now."

Austin's regimen just may save his life. Last year, a startling study showed that obese children and teens have arteries that look like those of an average 45-year-old. Kids with high cholesterol showed the same dismal changes. "Obesity in adolescents is a time bomb," says Juan Alejos, MD, a pediatric cardiologist at UCLA Mattel Children's Hospital in Los Angeles. "By 2035 there will be 100,000 extra cases of adult heart disease because of obesity in today's children."

New guidelines from the American Academy of Pediatrics (AAP) say that children who are obese or who have other risk factors such as a troublesome family history should get a cholesterol test by age ten—and even urge doctors to consider statins for those most at risk if nothing else works. The recommendations stirred controversy, but the AAP insists it's not pushing pills for millions of kids.

"We simply wanted to draw attention to the rise in juvenile obesity," says Frank Greer, MD, who helped write the guidelines, "and to alert parents that poor health habits could be setting up their kids for early heart attacks or

strokes." Lifestyle modifications are the best strategy, says Dr. Greer, a professor of pediatrics at the University of Wisconsin School of Medicine. Statins should be considered only for kids with the worst combination of risk factors.

But parents need to make sure their kids eat right and stay active even if they're not overweight. Cheryl Bland knew that she and her husband, Lael, as well as their three kids—daughters Kaela, 15, and India, 8, and their 12-year-old son, Branford—couldn't take their health for granted. African Americans are twice as likely as Caucasians to suffer from coronary disease. Cheryl's mother died of a heart attack at age 47, when Cheryl was just 13. Lael, who's 47, comes from a family with stubbornly high cholesterol even though they're trim and get plenty of exercise.

So three years ago, the Blands decided to get healthy. "Our physician told us that if we wanted to see our kids graduate from high school we had to do something," recalls Cheryl. They now scrutinize package labels for hazards like trans fats, and have switched from margarine to heart-healthy olive oil. Red meat's basically off their menu, never mind fast-food joints.

"At first, it was hard getting the kids on board," Cheryl says. "But after losing my mother at a very young age, I'm very upfront and honest with them. I choose my battles, but with diet and exercise, they know they have no choice."



For recipes that help you dine the Mediterranean way, go to readersdigest.com/heart.