



# The Heart-Healthy Woman

Thanks, in part, to outspoken, health-conscious females, medical science is finally paying more attention to gender issues in cardiovascular health.

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Heart disease is the number-one killer of women in the United States. But it's never too late to improve your heart health—even if you've already had a heart attack.



BY KIMBERLY OLSON

**On January 25, 2001, Susan Cardelli decided to quit smoking. Recently diagnosed with asthma, she knew she had to kick the habit for good. No excuses. So on that stormy morning, she drove to Costco to buy a box of nicotine patches, which as it turned out, she would never use.**

When she arrived home to the Napa Valley estate where she then worked as a caretaker, she felt out of sorts. “I didn’t have the strength to lift a bag of dog food out of the trunk of my car. And when I went upstairs to my apartment, carrying just a little bag of coffee beans, I got pains in my chest,” she says, recalling the occasional bouts of such discomfort she’d been having for nearly two months.

Cardelli relaxed for a bit until the pain subsided. Then, feeling somewhat better, she began to help the estate’s owner check the basement for flooding. But when she headed back upstairs, she experienced crashing pain. “Being an independent woman of the new century, I wasn’t crying out for help because I didn’t want to be a big baby,” she says. “So I stood there in the rain, leaning up against the house, waiting for my boss to come.”

When he finally appeared, Cardelli was as white as a sheet. Deeply concerned, he rushed her to a hospital, fortunately just five minutes away. By the time they arrived, Cardelli had tunnel vision and could barely walk. As she fell into a swirl of confusion, hospital staff quickly escorted her through the ER’s double doors. “I didn’t even have to sit in the lobby and read old magazines, so I knew something

Heart attack survivor Susan Cardelli complained to doctors about chest pains, but received two inaccurate diagnoses.



PHOTO BY JACK HUTTON

was wrong,” she quips. “Somebody was hooking me up to an IV. Somebody was spraying nitroglycerin under my tongue, and a nurse was asking me questions like, ‘Have you used cocaine?’ It was like some sort of surreal press conference.”

Then, amid the flurry of activity, a cardiologist arrived, looking very doctorly, and gently explained to his befuddled, 41-year-old patient, “You’re having a heart attack.”

## NOT JUST A MAN’S DISEASE

Two-thirds of women who have a heart attack never fully recover. Yet even health-conscious women—the ones who vigilantly schedule regular mammograms and Pap smears—may rarely worry about having a heart attack or stroke.

“Heart disease has been the number-one cause of death in women for years and years, but women are not generally aware of it,” says Dr. Rita Redberg, director of Cardiovascular Women’s Services at the University of California, San Francisco. In a 2003 survey conducted by the American Heart Association, only 13 percent of women said they consider heart disease to be their greatest health threat, but it actually kills more women than the next seven health threats combined.

If this news comes as a surprise, don’t beat yourself up too much. Even many doctors still think of heart disease as a man’s ailment. “If a 50-year-old woman walks into a doctor’s office and says, ‘I just don’t feel that well,’ a heart attack isn’t the first thing the doctor is going to think about,” says Dr. Richard J. Gray, medical director at Sutter Pacific Heart Centers in San Francisco. As a result, he adds, women with heart disease are misdiagnosed more often than men.

Case in point: Susan Cardelli. She never did have asthma. Nor did she have acid reflux disease, another diagnosis she received when she initially began talking to doctors about her chest pain. All along, it was her heart that was sending out distress signals.

Cardelli’s friends ask if she blames the doctors who originally misdiagnosed her, but she harbors no hard feelings. “They’re just products of the educational system,” she explains. “The medical community isn’t taught about women and heart disease.”

Happily, that’s changing. Early last year, the American Heart Association issued special guidelines for front-line doctors—including general practitioners and ob-gyns—to aid in preventing heart disease and making early diagnoses in women. “These are state-of-the-art guidelines for women based on ‘gold standard’ clinical trials,” says Kathy Berra, nurse practitioner at the Stanford Prevention Research

## RESOURCES

### Heart Disease

American Heart Association  
(800) 242-8721  
[www.heart.org](http://www.heart.org)

WomenHeart: the National Coalition of Women with Heart Disease  
(202) 728-7199  
[www.womenheart.org](http://www.womenheart.org)

National Heart, Lung, and Blood Institute (Heart Truth campaign)  
(301) 592-8573  
[www.nhlbi.nih.gov/health/hearttruth](http://www.nhlbi.nih.gov/health/hearttruth)

Preventive Cardiovascular Nurses Association (for health-care professionals)  
(608) 250-2440  
[www.pcna.net](http://www.pcna.net)

Stanford Prevention Research Center  
[prevention.stanford.edu](http://prevention.stanford.edu)

Sutter Heart Care Center  
[www.hearts.sutterhealth.org](http://www.hearts.sutterhealth.org)

UCSF Women’s Health  
[www.ucsf.edu/coe](http://www.ucsf.edu/coe)

### Smoking Cessation

American Lung Association of California  
(510) 638-LUNG (5864)  
[www.californialung.org](http://www.californialung.org)

Committed Quitters  
[www.committedquitters.com](http://www.committedquitters.com)

QuitNet  
[www.quitnet.com](http://www.quitnet.com)

### Nutrition

Dr. Melina B. Jampolis  
Amarna Medical Wellness Center  
815 Hyde St., Lower Level  
San Francisco  
(415) 885-6474  
[www.amarnamedical.com](http://www.amarnamedical.com)



Center and one of the guidelines' 17 co-authors. "We now know that there are some very gender-specific risks. Diabetes in women is a much greater risk for heart disease than it is in men, for instance." Similarly, hormone replacement therapy isn't as helpful as some once thought. Most experts now agree that HRT is not effective for reducing the risk of heart disease in women.

Many doctors are taking the initiative to get up to speed. "I just put together a clinical update for the American College of Obstetricians and Gynecologists called 'Chest Pain in Women,' which they asked me for," Redberg says. "A lot of women only see their ob-gyns, who are really not trained in diagnosing heart disease."

To further complicate matters, heart disease doesn't always behave the same way in women as it does in men. "As far as the dull, heavy chest pain and the left shoulder radiation down the arm that we read about, women don't necessarily present that way all that often," Gray says. "Those symptoms have been identified mostly from studies on men. Men have a more explosive eruption of plaques in the arteries, which cause abrupt cessation of blood flow, making symptoms more definitive. In women, though, symptoms can be subtle and nonspecific, so a heart problem may mistakenly be identified as something else if the doctor isn't aware of the unique symptoms that women can have." According to the National Coalition for Women with Heart Disease, women's symptoms may include chest fullness or tightness, dizziness, nausea, clammy sweats, unexplained anxiety or fatigue, stomach pain, and shortness of breath.

While noncardiac doctors are learning more about heart disease in women, they face yet another challenge in diagnosing their female patients: Some common screening tests, such as an EKG and treadmill stress test, simply don't work as well on women. When Cardelli initially talked to her doctor about chest pain, she was given an EKG and treadmill test, which revealed no cardiac problems. One month later, she had her heart attack.

"I think some of the reason the tests don't work well is that they were developed and validated in men," says Redberg, who has published several papers on the diagnostic accuracy of treadmill testing in men and women.

While Cardelli's test didn't pick up her heart disease, experts say the more common problem is that women's treadmill tests are more often false-positive than are men's. "The reason for that isn't completely known," says Gray. "One interesting speculation is that, in any treadmill test, the taking of a medication called digoxin sometimes makes the test results falsely

## Seeing Red

Heart disease may be deadly, but it's also largely preventable. That's the message that health advocacy groups are spreading to women throughout the country.

Organizations like WomenHeart have reached millions in moments. Says Susan Cardelli, a heart-attack survivor and WomenHeart member: "In the past few years, the women of WomenHeart have appeared on *Oprah*, *Donahue*, and CNN, and on the pages of *Time*, *The New Yorker*, *The New York Times*, and more."

On another front, the Heart Truth campaign, a project of the National Heart, Lung, and Blood Institute (NHLBI), urges women to take heart disease risk more seriously by presenting the "heart truth" facts. In 2003, the NHLBI kicked off its Red Dress Project, to which top fashion designers—from Badgley Mischka to Vera Wang to Baby Phat—have donated red dresses for runway shows and tours.

Picking up on the theme, women from coast to coast have donned red on National Wear Red Day since its debut in February 2004, to raise awareness about cardiovascular disease. As part of the American Heart Association's 2004 "Go Red for Women" campaign, 800 corporations joined the effort, encouraging employees to donate to the cause for the privilege of wearing jeans and red to work that day.

The good news: "The Go Red campaign raised \$10 million in 2004, thanks to individual women getting involved, as well as corporate sponsors such as Macy's and Pfizer," says Melinda Mason Miller, an AHA spokesperson. Even better news: The 2005 campaign anticipates a huge increase in participation and expects 4,500 companies to sign on.

# Eight Weeks to a Healthier Heart

You have the best of intentions. You bought a workout DVD (it's somewhere in the back of your junk drawer). You even bought some fresh greens to make a salad (they're now rotting in the fridge).



If you've tried to change your ways with little success—and who hasn't?—don't despair. Dr. Melina B. Jampolis, a San Francisco internist who has helped scores of people move from intention to action, says the trick is to stay in your comfort zone. If you don't like big changes, make small ones. "Don't just go cold turkey," she says. "Decide what's really a treat for you and keep that in your program, and then commit to doing one new, heart-healthy thing every week."

Following are some practical tips recommended by Jampolis and the American Heart Association. Try to make the following changes over the next eight weeks, and you'll substantially reduce your risk of heart disease. Better yet, grab your favorite gal pal (or two) and make it a team effort.

**Week 1** Talk to your doc. Find out if you're at risk for heart disease and know your numbers—blood pressure, blood glucose level, HDL ("good" cholesterol), LDL ("bad" cholesterol), and triglycerides.

**Week 2** Pitch the smokes. But don't go it alone. There are plenty of websites, hotlines, support groups, and pharmacological aids for people who want to kick the habit.

**Week 3** Get moving. Some options: Begin taking a lunchtime walk or pedaling your stationary bike while you watch TV each day. Start with 5- to 10-minute workouts and work up to at least 30 minutes daily, five times per week.

**Week 4** Switch to good fats. This week, when making out your grocery list, avoid red meat, creams, and butter to reduce saturated fat, and cut back on foods that contain trans fats, such as certain crackers and cookies. (When shopping, scan ingredient labels for the word *hydrogenated*, a telltale sign of deadly trans fats.) Instead, opt for the "good fats" in olive oil, canola oil, salmon, nuts, avocados, and ground flax seed.

**Week 5** Chill out. Depression and anxiety are associated with increased risk for heart disease. Take up yoga or tai chi to reduce stress and balance your mood.

**Week 6** Discover the joy of soy. Add soy products—such as soy milk, yogurt, cheese, and burgers—to your regular grocery list this week. Eating 25 grams of soy protein daily can reduce your risk of heart disease. (If you have a history of breast cancer, check with your doctor first.)

**Week 7** Go for quality carbs. Trade the bad carbs (in white bread, white rice, and white-flour pasta) for high-fiber, complex carbs (in brown rice, whole-grain breads, and whole-grain pasta).



**Week 8** Load up on fruits and veggies. Eat at least five daily servings of fruits and vegetables to get plenty of cholesterol-lowering phytonutrients, which can't be duplicated in a pill. Extra credit: Work in cruciferous vegetables (such as broccoli) and high-fiber fruits (like apples). Include oats, barley, and green tea, too.

positive. And somebody came up with the idea that estrogen has a chemical structure not unlike digoxin's, so if a woman is still having estrus cycles, the estrogen cycles in her body could be the reason."

As the medical community gradually reorients itself to gender-specific risks, cardiologists have one piece of good news for women that appears to outweigh the bad: "Heart disease is a largely preventable disease," Redberg says. "It's very worthwhile to see your physician and start the conversation, because it's never too early to be aware of your risk factors and start reducing them."

Cardelli agrees, adding that women need to heed their inner voice. "When I look back, I knew intuitively that something wasn't right, but I was in denial," she says. "Women tend to be very aware of their own physicality, and they need to be advocates for themselves."

This sort of women's intuition may have its skeptics, but some research suggests that the idea isn't just mumbo jumbo. A recent National Institutes of Health study found that about 95 percent of women had recognized that their symptoms were new or different at least one month prior to their heart attack.

In any case, cardiologists encourage women to honor their instincts and to be ever vigilant. About three and a half years after her heart attack, when she thought the worst was behind her, Cardelli's chest pains returned. Tests revealed that her left coronary artery was 90 percent blocked; blockage of this vessel is often deadly. "Even though I now had the knowledge, I was still thinking, 'I had a heart attack—one event,'" she says. "After that experience, it hit me that I didn't just have a heart attack. I have heart disease."

## NEW HOPE

As women and their doctors join forces to rein in this deadly epidemic, procedures such as bypass surgery and angioplasty—the artery-clearing procedure that ultimately saved Susan Cardelli's life—are giving many heart disease patients a second chance.

Meanwhile, medical breakthroughs are offering new hope for both sexes, from better medications to less-invasive surgery and beyond. In 2004, for example, scientists from the Cleveland Clinic Foundation and Cleveland State University discovered three mutations in a gene called MEF2A, which helps to protect against plaque build-up



that leads to heart attacks. In the near future, genetic testing may identify at-risk individuals so physicians can recommend aggressive lifestyle changes before the disease develops.

While cardiologists naturally welcome medical advances, their mantra remains the same: A healthy lifestyle is the key to protecting your ticker. “The most important things are maintaining a healthy weight, being active, and eating a healthy, balanced diet,” says Dr. Melina B. Jampolis, a San Francisco internist and physician nutrition specialist (among only a couple of hundred nationwide). “As women age, their fat shifts from their hips, thighs, and buttocks to their middle, and that really has a negative impact on their heart risk factors, including good cholesterol, bad cholesterol, and insulin resistance.” (Read “Eight Weeks to a Healthier Heart,” page 62, for more heart-healthy advice.)

Making healthful lifestyle changes isn’t always easy, but there’s plenty of support to be found. Susan Cardelli, with the help of her doctor, is taking good care of her heart and is once again enjoying life. Now a hopeful crusader, she has joined the ranks of WomenHeart: the National Coalition of Women with Heart Disease, one of several organizations that have launched national awareness campaigns to educate women about the condition. “We’ll get three estimates for an auto repair, but we often don’t put the same effort into taking care of ourselves,” she says. “As women, we know that the heart isn’t just an organ that pumps blood. It’s the symbolic center of our souls. This is a wake-up call to take care of ourselves, both physically and emotionally, to stay healthy. I now have the knowledge. I want to live, and I have hope.”