



## PSA testing in the spotlight

Prostate cancer, a phrase once uttered in whispers, is now in the news almost daily. General Norman Schwarzkopf and more recently New York mayor Rudy Giuliani are only two of the famous men who have or have had the disease. They and thousands of others have had their cancers diagnosed with the help of a PSA test. PSA stands for “prostate specific antigen,” a protein produced in the prostate gland and released into the blood. (The prostate, a small gland behind the bladder, produces seminal fluid.) PSA levels are normally very low, but rise when prostate disorders—such as infection, benign enlargement, or cancer—occur. Digital rectal exam (DRE), usually done at the same time as PSA testing, also helps detect some cancers, but not as many as the blood test.

The problem, though, is that nobody has ever been able to show that PSA testing actually saves lives. Do men live longer if they discover their cancers early and undergo treatment? There is still no definite proof, via a clinical trial, but the good news has been slowly accumulating. It now appears that the death rate from prostate cancer has declined since testing began.

For example, a study by National Cancer Institute researchers published in March found that for white men, the death rate from prostate cancer had declined below levels of 14 years ago, when PSA testing was first approved. (The death rate among African-

Americans has also begun to decline, but not as much.) Among men aged 60 to 79, the death rate was even lower than that—lower than 50 years ago. Some researchers attribute this to PSA testing, but others disagree. Currently, some official organizations, such as the American Urological Association, recommend regular PSA testing for all men over 50. But other experts are less sure of the benefits and do not recommend routine PSA testing. This newsletter has recommended it in a limited way. What’s behind these differences of opinion is a complicated story.

Prostate cancer is quite common. Autopsies have shown that 30% of men over 50 and 70% at age 80 have small prostate cancers that haven’t spread or caused symptoms. But only 3% of men die from it. In many men the disease does not spread and has few symptoms, or none. On the other hand, it can be deadly—it kills more men (32,000 in the U.S. predicted this year) than any other cancer except lung cancer. And though this is typically an older man’s disease, it sometimes strikes men in their fifties or even younger. For reasons not wholly understood, African-American men are more likely to have prostate cancer—and also more likely to die from it than other men.

### The downside of PSA testing

A simple blood test that can help detect cancer might sound like a dream come true, but in fact the PSA test detects only high levels of PSA, not cancer. The only way to tell which men have cancer and which have some benign disorder is through a surgical biopsy—an expensive and unpleasant procedure. It’s estimated that only about one-third of men with high PSAs turn out to have cancer. However, in one unpublished study presented recently at the meeting of the American Urological Association, researchers at the Washington University School of Medicine in St. Louis reported that of some 1,500 men undergoing surgical biopsies, only 165 turned out to have cancer. That’s just over 10%, which is not very many, considering the expense, particularly the psychological expense for the men undergoing testing.

*Another problem:* There’s no way to predict for sure which cancers (detected by biopsies) will be aggressive and which will stay confined to the prostate and cause few or no symptoms.

*Still another:* It’s possible to have a low PSA and still have prostate cancer. Indeed, one in five men with prostate cancer do not have an elevated PSA. Moreover, as we’ve said, a high PSA

*(continued on page 2)*

### Wellness facts

■ It’s well known that heavy drinking damages brain cells and may increase the risk of some kinds of dementia. But **a drink a day may actually help reduce age-related mental decline**, according to a recent study of more than 3,500 Japanese Americans over age 70. Several other studies have also found that moderate drinking can help maintain brain function. However, the researchers warned that alcohol carries as many risks as potential benefits for older people. For instance, alcohol can interact with many medications and increases the risks of falls.

■ More evidence that **herbs and other supplements can interact dangerously with prescription medication** comes from a recent review article focusing on warfarin, a common anti-clotting drug. A wide range of supplements, including garlic, ginkgo, dong quai, licorice root, vitamin E, and feverfew, can boost the effect of warfarin, thus increasing the risk of bleeding. On the other hand, supplements such as coenzyme Q-10 and ginseng reduce warfarin’s effect. It’s essential to tell your doctor if you are taking or considering taking supplements (as well as over-the-counter drugs), especially if you’re taking medication or are scheduled for surgery.

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can arise from other disorders, or be elevated for no apparent reason.

**And another problem:** Even if you're diagnosed with prostate cancer, there's no one best treatment. Surgery to remove the prostate and/or radiation are standard; but both treatments often produce such complications as impotence and urinary incontinence. For older men "watchful waiting" rather than treatment is sometimes best. This means frequent visits to the doctor for retesting and examination, with an eye to beginning therapy if the cancer progresses. Trials are underway to determine whether "watchful waiting" is better than immediate surgery.

### The upside

In spite of all the drawbacks, millions of men are currently being tested, and death rates from prostate cancer appear to be declining markedly. In another recent report to the American Urological Society, researchers from Italy and Austria reported a big decline in prostate cancer deaths in the Austrian state of Tyrol, where PSA screening was offered free to men aged 45 to 75 beginning in 1993. Two-thirds of all males were screened, and the death rate plummeted—41% below expected levels in 1998. This study has received a lot of publicity but has not been published, and there could be many questions about this result. There are currently two large studies in progress, one in the U.S. and one in Europe. They are specifically designed to determine whether PSA screening decreases mortality. Results from this research will be available beginning in 2006.

We see no reason, therefore, to change our prior recommendations. Given the advantages and disadvantages of this test, a man should discuss the issues thoroughly with his physician before being tested. Here's our advice:

- ✓ If you are under 50 and have no symptoms of prostate cancer, and no family history of it, you need not be tested.
- ✓ If you are African-American or have a family history of prostate cancer, begin screening at age 50. Some doctors say you should begin at age 40.
- ✓ If you are 50 to 75 with no family history or other risk factors, you may choose not to be screened.
- ✓ If you are over 75, and symptom-free, you may choose not to be screened.
- ✓ If your PSA level turns out to be high, get retested before having a biopsy.
- ✓ If you are taking any drug (such as Proscar) or herbal product (saw palmetto) for prostate problems, be sure to tell your doctor before your test, since these products may affect PSA levels.

## Juice Plus—and minus

Would you rather eat an orange or swallow a dried-orange capsule? Find your thrill in a blueberry pill, or in actual blueberries? Lots of supplements on the market claim to offer the benefits of whole fruits and vegetables. One of the most prominent of these products is Juice Plus+, which comes as "Orchard Blend" capsules, made by freeze-drying seven fruits, and "Garden Blend" capsules, made from ten vegetables (you are supposed to take both of them). They also make a gummy candy for kids that presumably takes the place of all those vegetables kids dislike. National Safety Associates (NSA) and Natural Alternatives International (NAI)—which almost sound like government agencies—make Juice Plus+ and sell it via a multi-level marketing program.

### Among the claims:

■ These products contain beneficial "live enzymes." But what could this mean? Enzymes are the proteins produced by living cells to promote essential chemical reactions. When you swallow enzymes, they are digested like any other proteins.

■ These products boost the immune system. This is a meaningless statement—and the studies on the Juice Plus+ website in support of the claim are not good ones. Small increases in immune function do not mean you're less likely to get sick. (Boosting immunity is not that simple—watch for our upcoming article on this subject.) In any case, if a capsule containing dried fruit boosts your immunity, imagine what fresh fruit could do.

■ These products provide antioxidant benefits. The capsules no doubt offer vitamin C and carotenoids, since they are made from fruits and vegetables. But the real stuff offers even more. It's hard to make comparisons, however. Juice Plus+ capsules have no nutritional labels—you cannot tell how much vitamin C, beta carotene, fiber, etc., they actually contain.

No matter how compressed these capsules are, or what they contain, it's impossible to deliver the nutrients of five to ten servings of fruits and vegetables in several capsules weighing 800 to 850 milligrams (about one-thirtieth of an ounce) each. It would take two dozen 800-milligram capsules just to provide all the nutrients in six ounces of carrot juice.

Juice Plus+ relies heavily on anecdotes. One big endorser used to be O.J. Simpson, who testified in a tape for the company that the capsules cured his arthritis. But at his trial he claimed that his arthritis had made it impossible for him to have committed a double murder, so Juice Plus+ stopped using the Simpson tape.

No capsule can substitute for fruits and vegetables, which

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This newsletter is not intended to provide medical advice on personal health matters, which should be obtained directly from a physician.



contain the best balance of nutrients and phytochemicals. Your cells manufacture the enzymes. You don't need Juice Plus+.

**Final thought:** *If your children or grandchildren won't eat what's good for them, you might be tempted to give them pills or*

*a serving of "nutritional" sweets. But is it wise to teach them that nutrition comes from capsules, let alone gummy candy? Most kids love fruit and soon learn to like vegetables, if good foods are consistently on the table and in the fridge.*

## BUYING GUIDE

### A vote for oats

Used for centuries as animal fodder, oats are a staple for humans (mostly as oatmeal) in only a few countries, including the U.S., Canada, and Scotland. Interest in the grain peaked in the late 1980s, when highly publicized studies showed that oats—especially oat bran—can lower blood cholesterol. Encouraged by press reports and food manufacturers, many people came to believe that oats were a magic bullet against cholesterol. When other studies found the anti-cholesterol effect of a daily serving or two of the grain to be modest, there was a backlash against oats. Since then, however, researchers have learned more about this and other potential health benefits of oats.

#### What oats may do

Oats are a whole grain rich in soluble fiber. In 1997 the FDA allowed the labels on oat products to bear the statement that this soluble fiber, when part of a diet low in saturated fat and cholesterol, "may reduce the risk of heart disease." Some oat products sport the check mark of the American Heart Association. The fiber in oats has other benefits besides lowering cholesterol, and oats contain other healthful substances as well.

- Oats are the best source (along with barley) of a type of soluble fiber called beta glucan. This seems to play a special role in lowering total blood cholesterol and LDL "bad" cholesterol—especially the small dense LDL particles that are most likely to endanger coronary arteries, according to a recent study at Colorado State University.

- Research suggests that oat fiber may also help control blood sugar and improve insulin sensitivity and thus be a boon for people with insulin resistance or diabetes. But no one knows how much of it you have to eat to get a significant effect. Oat fiber may also help reduce high blood pressure.

- Like all plant foods, oats contain phytochemicals that may help reduce the risk of heart disease and have other benefits. Biochemists in Canada (where most North American oats are grown) have identified many of them, including saponins and other antioxidants. Some of these antioxidants resemble vitamin E and seem to work with it.

- Some of these antioxidants may help relax blood vessels and maintain blood flow. Preliminary research at Yale has found that, like vitamin E, these compounds can counter the vessel-constricting effect of a high-fat meal in susceptible people. Of course, neither eating oats nor taking vitamin pills can undo all the damaging effects of high-fat meals.

#### Oat cuisine

- ✓ **All forms of oatmeal (old-fashioned, instant, steel-cut, etc.) are whole grains and are similarly nutritious**, since neither the bran (the grain's outer layer) nor the germ is removed. The differences among these products relate to the size or shape of the grain, whether they have been precooked, and thus how long it takes to cook them.

- ✓ **Exception: Oat bran** is sold separately and contains more fiber than oatmeal. You can sprinkle it on cold cereals or

add it to recipes for waffles, pancakes, quick breads, and muffins. You can also substitute it for some white (wheat) flour in recipes.

- ✓ **In this country, oats are usually rolled**—heated and pressed flat—so that they cook faster. The raw grain is sliced, steamed, rolled into those familiar little flakes, and dried. Oats lose only a little of their nutritional value in the process.

- ✓ **Steel-cut oats**, often imported from Ireland or Scotland, are rough-cut lengthwise and then rolled. They have a coarse texture and nutty flavor when made into porridge. Usually more expensive, they may require 30 minutes or more to cook.

- ✓ **To make oat flour**, just pulverize oatmeal in a blender. Use it like oat bran, above.

**Bottom line:** *Oats are well worth including in a low-fat diet. Look for other sources of fiber, too, such as beans, fruits, vegetables, and other whole grains—these are also rich in vitamins, minerals, and phytochemicals. Aim for at least 20 to 30 grams of fiber a day.*

#### Where's the oat?

Oat products can be deceptive. Most "oatmeal" breads, for example, are primarily refined wheat, with oats so far down on the ingredients list as to almost vanish. Many other oat products, including most muffins, granola bars, and cookies, use oats merely for texture and to acquire a healthy image. Kellogg's NutriGrain Cereal Bars, "with wheat and whole-grain oats," get most of their calories from sugar; high-fructose corn syrup is the first ingredient, with oats listed sixteenth. A serving has only 1 gram of fiber. Many oatmeal cookies or muffins have almost no fiber, but lots of fat.

**Moral of the story:** *Read labels when buying oats. Look for oat products with at least 2 or 3 grams of fiber per serving.*

PRODUCT	CALORIES	FAT (g)	% CALORIES FROM FAT	FIBER (g)
<b>GOOD SOURCES OF OATS</b>				
Kellogg's Cracklin' Oat Bran Cereal, 3/4 cup (2 oz)	190	7	33	6
Quaker Toasted Oatmeal Cereal, 1 cup (2 oz)	190	2.5	12	3
MultiGrain Cheerios, 1 cup (1 oz)	110	1	8	3
Health Valley Oat Bran O's Cereal, 3/4 cup (1 oz)	100	0	0	3
Healthy Choice Low-Fat Granola, 2/3 cup (2 oz)	220	3	12	3
Matthew's Oat Bran Bread, 1 slice	60	1	15	2
<b>QUESTIONABLE SOURCES</b>				
Nabisco Oatmeal Cookies, 1	80	3	34	0
Pennysticks Oat Bran Pretzel Nuggets, 1 oz	120	2	15	1
Kellogg's NutriGrain Cereal Bar, 1 bar (1.3 oz)	140	3	19	1
Nabisco Harvest Crisps, 5-Grain (with rolled oats), 1 oz	130	3.5	24	1

## Posture makes a difference—in looks, self-image, and health

Does back pain adversely affect your posture? Or does bad posture play a role in causing back pain? The answer to both questions is yes. In fact, researchers now believe that poor sitting posture is a major contributor to low back pain. Poor standing and lying postures are not good for your back, either. And once your back starts hurting, it becomes a vicious cycle. Certain muscles, such as the hamstrings and back muscles, may tighten in response to pain, while others, such as the abdominals, tend to weaken. This imbalance, in turn, affects your posture, further stressing muscles and joints.

Good posture is important in positive ways: it improves your appearance and helps you project self-confidence and self-assurance. It can help you emotionally and psychologically. It is worth achieving just for the aches and pains it may prevent.

So long as people aren't actually in pain, they tend to forget how delicately their backs are engineered. The three spinal curves—neck, upper back, and lower back—need to be kept in balanced alignment (see silhouette, below right). Sitting and standing exert pressure on the lower back. Sitting actually is harder on the back than standing, and standing is five times as demanding on the spine and muscles as lying down. Strong, flexible muscles are important in keeping the spinal curves aligned. Poor posture can strain both muscles and ligaments, making you more vulnerable to injury—as well as complicating such everyday tasks as carrying groceries or even sitting at a desk. Bad posture can narrow the space between vertebrae, thereby increasing the risk of compressed nerves.

Posture is not simply what happens when you are sitting or standing still—it's also dynamic, and includes your posture when you move. Poor posture may include many elements—rounded shoulders, protruding buttocks and abdomen, overly arched lower back, and the head pushed forward into an exaggerated position. It may be caused by many factors, including previous injuries, disease, poor muscle tone, and emotional stress. A sedentary life-style can reduce muscle tone and strength and lead to bad posture. Sore, aching feet—and poorly fitting shoes, as well as high heels—have a negative effect on posture, too. Contrary to what some people may believe, “straightening up” now and then isn't enough. Retraining postural habits takes time and effort.

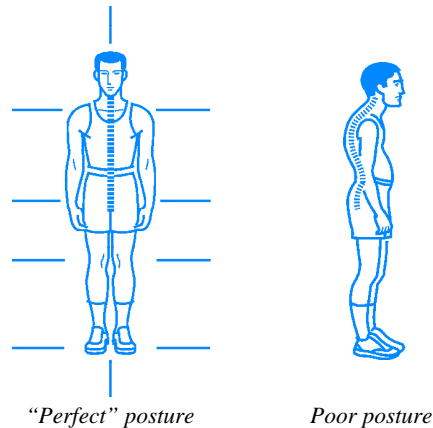
### Evaluating your posture

If you are having neck or back pain, a professional evaluation of your posture may be in order. Your physician may be able to evaluate you, or may refer you to a physical therapist or other professional. But most people can begin to evaluate their own posture with the aid of a full-length mirror and a hand mirror. Having a friend look at your posture will help.

To check yourself, stand before a full-length mirror, wearing tight clothing (such as a swimsuit) and flat shoes; assume your normal posture and compare what you see with the following diagrams. Or work with a partner and inspect each other's posture.

### Standing sideways:

These two diagrams show two extremes: the figure at left has “perfect” posture, the other has a swayback and is also slouching. Experts debate what correct side posture should look like, and it's true that you can have good posture and still not be exactly like the “perfect” model. But you should be closer to it than to the other extreme.



### To compare yourself, do the following:

✓ Imagine dots at the front of your earlobe and shoulder, at the center of your hip, just behind your kneecap and just in front of your ankle bone. Connect these dots—they should form a straight vertical line.

✓ Notice how your back curves. There should be a mild inward curve behind your neck and lower back. Your upper back should curve slightly outward.

✓ Check your chin. It should normally be parallel to the floor and not thrust forward.

✓ Still checking your image in profile, sit in a straight armless chair. You should still be able to draw a straight vertical line from ear lobe to hip, and the three natural curves of your back should be visible.



### From the front:

✓ **When standing**, your hips, shoulders, and knees should be level—one hip (or shoulder or knee) should not be higher than the other. The spaces between your arms and waist should be the same on each side. Kneecaps should face straight ahead. Your ankles should be straight (not rolling inward with your weight on the inside of your feet). Your head should be straight.

✓ **When sitting**, your shoulders should be at equal height, knees facing forward, and ankles straight.

### Posture strategies

Whether or not you need professional evaluation, there's a lot you can do on your own. The following methods can help correct poor posture and help maintain good posture. Another

important element: maintain a healthy weight. Being overweight can cause or aggravate poor posture. Regular exercise is good for your overall health, weight control, and posture.

### Standing, walking

✓ **Think about your feet.** Foot pain—and the posture changes it causes—may simply mean that you’re choosing the wrong shoes. It may also mean that you need evaluation by a podiatrist. Avoid high heels and platform shoes.

✓ **Think tall.** Imagine a wire attached to the top of your head, pulling it upward.

✓ **Do the pelvic tilt** to remind yourself what good posture feels like. Stand against a wall, feet slightly apart, with your shoulders comfortably back. Put your head against the wall, tuck in your abdomen, and tilt your hips so that the space between your lower back and the wall is lessened. Hold the position for a few seconds, then relax. Repeat occasionally throughout the day.

✓ **Avoid standing or walking swayback**—that is, with an extreme curve in the lower back. Instead, lift your chest up, pull in your abdomen, and tuck in your buttocks.

✓ **Practice tightening your abdominal muscles** and flattening your stomach. Hold the position for a few seconds, then relax. Repeat occasionally throughout the day.

✓ **When standing for long periods**, try to stand evenly

balanced on both feet. If you get tired, shift your weight from one foot to another. Occasionally rest one foot on a small stool.

### Lying down

✓ **Make sure your mattress is comfortable**—it need not be hard, but it shouldn’t sag. Back pain in the morning may be a sign that the bed or your sleeping position is bad.

### Sitting

✓ **For long periods of sitting**, choose a straight-back chair. Sit firmly back in it with your shoulders against the chair, your chest lifted, and your upper back straight. Put a small lumbar roll against your lower back for additional support. Put equal weight on your left and right sit bones. Your feet should be flat on the floor, and your legs horizontal. If the chair is too high for this, use a phone book or small stool as a foot rest.

✓ **When working at a desk**, angle your work so that you are not looking down. Lean forward at your hips, bringing your whole trunk forward, rather than bending at the waist or neck.

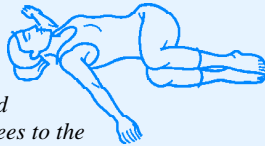
✓ **When driving**, position your seat so you can easily reach the wheel, as well as the accelerator and brake. Change the seat position occasionally, tilting slightly forward or back, if possible. Try a lumbar roll for your lower back. During a long trip, stop every couple of hours to rest and stretch. Practice good sitting posture while driving—don’t slump. Remember the imaginary wire at the top of your head, pulling it upward.

## Some exercises to improve posture

These simple stretching and strengthening exercises target muscles (such as the hamstrings and abdominals) essential to good posture. Try to do these in the morning and again at night.

### Lower-back and abdominal workout.

Lie on your back with arms out to your sides. Bend your knees and raise them toward your chest. Slowly lower both knees to the floor on one side. Hold for 15 seconds. Bring knees back to starting position, keeping arms and shoulder blades on floor, then lower to other side. Repeat 5 times on each side.



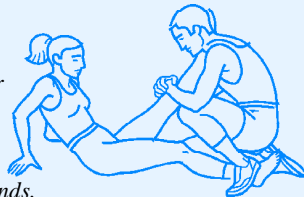
### Thigh stretch.

Lying flat on your stomach, grasp left ankle with left hand. Press the bent leg back against your hand’s resistance. Hold for 20 to 30 seconds. Then pull that leg upward so that the heel touches your buttocks. Hold for 20 to 30 seconds, then lower your leg part way. Repeat 5 times with each leg.



### Hamstring stretch.

Working with a partner, sit on the floor with legs straight and hands behind you for balance. Put one leg on partner’s shoulder and press down 20 to 30 seconds. Then ask partner to press down gently just above your knee while he raises up slightly to create a passive stretch. Hold for 20 to 30 seconds. Repeat 5 times with each leg.



**Neck stretch.** Sitting on a stool or chair, and holding the seat with your right hand, put your left hand on the rear right side of your head. Gently pull your head down while rotating your chin to the left. Hold for 20 to 30 seconds. Change hands and repeat on the opposite side. Repeat 5 times on each side. You can also stretch your neck by gently pulling head down toward shoulder without rotating head.



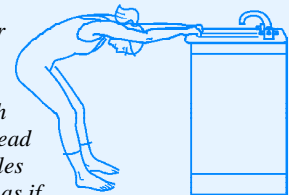
### Shoulder and upper back workout.

Sit on a straight chair, but without touching the back. (1) With hands clasped behind your head, raise your shoulders toward your ears, then press down. (2) Press the back of your head into your hands, so that muscles along your upper spine tighten; hold for 5 seconds. (3) Press your elbows back 10 times, so that you feel the movement in your shoulder blades.



### Back stretch.

Hold the rim of a sink to brace yourself, with your arms straight but not locked. Place your feet hip-width apart, right under your shoulders, with knees slightly bent. With your head hanging slightly and neck muscles relaxed, let your hips sink back as if you were about to sit down. Feel the stretch down the length of your spine. Hold position for 10 seconds. Gradually straighten up. Repeat 5 times.



## Is it a heart attack? If you're a woman, will you know?

Most of us know that chest pain or pressure is a key symptom of a heart attack. The pain in the chest may feel crushing and/or may radiate to one or both arms. Shortness of breath and heavy sweating are other common symptoms. Women having a heart attack are somewhat more likely to have other symptoms, too—nausea, pain in the jaw, neck, shoulder, back, or ear, and a feeling of intense anxiety. Surprisingly, a recent study found that one-third of people having a heart attack, including women, don't have chest pain.

More than one study has shown that women are less likely to identify their own heart attack symptoms and thus may postpone seeking help. Recently a study conducted at the University of Washington and the Fred Hutchinson Cancer Research Center in Seattle showed that women are in danger of mislabeling their symptoms—perhaps passing them off as indigestion, food poisoning, or the onset of flu. Few women (36%) knew that nausea and shortness of breath might signal a heart attack. Amazingly, only about one-quarter of the women with common symptoms said that they'd call 911 or go to the hospital. The typical response was to do nothing or to try to call a doctor—both of which can seriously or even fatally delay treatment. Reaching your doctor may take time, and then he/she will no doubt tell you to call 911.

Most women have not been educated about the less common symptoms of a heart attack. And even if they have chest pain and other classic symptoms, they may believe that heart attacks are a man's disease. They see breast cancer as their biggest enemy—and this misperception may contribute to misinterpreting heart attack symptoms (“not me, I'm a woman”). Heart disease is still the leading cause of death for both women and men in the U.S. and Canada (see *Wellness Letter*, July 2000), and women's risk of heart attack rises sharply after menopause.

Chest pain is, of course, the most common symptom of heart attack for both women and men. It's not wise to try to explain it away. It may be accompanied by nausea and vomiting, pain in the head or shoulders, and a feeling of intense anxiety or malaise. Shortness of breath, in particular, and radiating pain in one or both arms are other symptoms to take seriously.

For men and women—or anybody assisting a person with chest pain—the first goal is to get expert medical help as fast as possible. Don't panic. Do the following:

- ✓ Call 911 and report that you are having a heart attack.
- ✓ Chew and swallow an aspirin (full size). This will help

### Re: Restless leg syndrome

Readers have pointed out one misleading statement and one flat-out error in our article on restless leg syndrome (RLS) in September. We overemphasized self-help. Although it's true that there's no approved medication for RLS, doctors are now prescribing certain anti-Parkinson drugs, among others, for RLS, with some success. It is always worth talking to a physician about RLS. Finally, the correct address of the RLS Foundation is 819 Second Street, Rochester, Minnesota 55902-2985.

dissolve the blood clot if there is one.

✓ Don't drive yourself to the hospital. But if you are helping someone else and are sure you can get to the emergency room faster than if you wait for the ambulance—without speeding or running red lights—do drive.

**Words to the wise:** *A heart attack is one situation where survival depends on getting the right help—fast.*

## Out on a limb with tea tree oil

Tea tree oil comes from Australia bearing a long historical and military pedigree. It's extracted from the leaves of a tree called *Melaleuca alternifolia*, used by early Australian settlers—all the way back to Captain Cook—to brew a beverage. Then in the 1930s an Australian surgeon found the oil effective for disinfecting wounds. During World War II the army used it as a germicide, and so did workers in munitions factories. In peacetime it gradually fell out of official use, but has become popular around the world as a remedy for abrasions, burns, insect bites, acne, nail fungus, athlete's foot, and other skin conditions. Tea tree oil contains chemicals that can kill a wide range of bacteria and fungi—theoretically at least. But studies of tea tree oil as a remedy for human ailments in the real world have had confusing results.

The studies, usually small, have used varying concentrations of the oil—sometimes in combination with other agents, so that it's hard to know what's what. Two studies found the oil useful against the itching and burning of athlete's foot, but these studies were not controlled. In one study on toenail fungus, tea tree oil was combined with another antifungal chemical, and the combination seemed to work against the fungus, but not tea tree oil alone. In yet another, tea tree oil was compared with an ingredient (clotrimazole) found in many over-the-counter remedies for fungus. The participants also had podiatrists who cleaned and trimmed the infected nails regularly. About 60% of both groups showed improvement, but recurrence rates were high. The problem with toenail fungus is that it comes and goes. You can treat it with something, or nothing, and it will get better and then worse.

**One worry:** Researchers at the Royal Brisbane Hospital in Queensland found that tea tree oil was not effective against bacteria found in burn wounds and that it actually damaged human tissue. They recommended against using it on burns.

**Another worry:** Tea tree oil is toxic if taken internally. If used at all, it should only be applied to the skin.

**Bottom line:** *If you decide to try tea tree oil as a skin oil or cream, remember that nothing is known about what strength you should use. It appears to be safe, except on burns or lacerations. If it irritates your skin, discontinue its use. Prescription medications for toenail fungus are expensive and require medical supervision because of potential side effects. (A new topical “nail polish,” available by prescription, is now on the market—see *Wellness Letter*, July 2000.) But they do work in most cases. If you prefer to try tea tree oil for nail fungus, remember that there's no evidence it works. But at least it's less expensive than prescription drugs. For athlete's foot or acne, there is preliminary evidence that it may help.*

## ASK THE EXPERTS

**Q** *How good is Enamelon, the new toothpaste that claims to remineralize teeth?*

S.J., VIA THE INTERNET

**A** Enamelon does not have the American Dental Association (ADA) seal, but it does have the potential to reduce cavities, according to Fred Eichmiller, head of the ADA Health Foundation's Paffenbarger Research Center.

The idea that you can remineralize your tooth enamel is not a fanciful claim. Teeth naturally demineralize and remineralize. Calcium and phosphate are secreted in saliva, and when they come together on the tooth surface they can make "repairs." The paste contains fluoride, calcium, and phosphate (the calcium and phosphate are in separate chambers so they don't combine until you squeeze them out and brush with them). The theory is that the paste not only prevents cavities, but can also repair tiny lesions on tooth surfaces before they become visible—doing what the body does, only more efficiently.

So far no results of clinical trials on healthy people have been published. But the paste has been shown to reduce cavities in people at high risk for tooth decay (for example, those undergoing radiation therapy).

In a small study where decay-promoting gels were applied to teeth, Enamelon reduced cavities more effectively than Colgate Total.

Enamelon is safe for children, but as with all fluoridated pastes, parents should supervise small children, making sure they don't swallow the paste or use too much of it. Other remineralizing products (such as mouthwashes, chewing gums, and toothpastes) will also be on the market soon. A remineralizing paste could be helpful for those at high risk for cavities or with sensitive teeth. Enamelon costs a little more than regular toothpaste.

No dentifrice can substitute for thorough flossing at least once a day and twice-daily brushing with a soft-bristle brush (for two minutes). Regular visits to the dentist for checkups and cleaning are a necessity, too.

**Q** *What causes a burning sensation in the feet at night? I'm 75 and have had this problem for years. My doctor has no answer.* F.D., KNUTSFORD, BRITISH COLUMBIA

**A** This symptom is common in older people. It may be caused by many things: an allergy to the fabric in your socks, ill-fitting shoes, alcohol abuse, medications, an inherited tendency to burning feet, underlying nerve damage, diabetes, pernicious anemia, and many other medical conditions. The problem is thus hard to diagnose and treat.

Consider getting a second medical opin-

ion, or at least reassurance from your current doctor that you don't have diabetes, the most common cause of nerve damage. A test for pernicious anemia is also a good idea. If nothing shows up in your exam, try these commonsense measures:

✓ Switch to different socks. If you wear cotton, try synthetics like acrylic or polypropylene. Try sports socks that "wick" away moisture. In any case, be sure your socks fit well.

✓ Buy well-fitting shoes made of natural materials, such as leather, suede, or canvas. Try wearing an insole for better ventilation.

✓ If you have symptoms during the day, wear sandals or go barefoot when possible.

✓ Don't stand in one position for long periods.

✓ Bathe your feet in cool water for 10 to 15 minutes two or three times a day, and just before going to bed.

✓ Try aspirin or acetaminophen for relief.

✓ Dry skin may play a role, so moisturize your feet with a lotion after bathing.

**Q** *My blood pressure usually runs about 100/55. Is this too low?*

T.G., VIA THE INTERNET

**A** No. Low blood pressure, called hypotension, is commonly defined as pressures less than 100/60 (pressure below 120/80 is considered optimal). It is not a problem—and is actually beneficial—unless you have symptoms, such as dizziness, weakness, fatigue, and palpitations. Studies show that the lower your blood pressure, the lower your risk of cardiovascular disease.

Many people with normal or even elevated blood pressure occasionally experience a form of low blood pressure called orthostatic hypotension, which is a temporary drop in blood pressure that occurs when you rise from a lying or seated position. You may feel momentarily faint, but this problem corrects itself.

If you experience orthostatic hypotension, take care to avoid a fall by not sitting up or standing up too quickly. Before you stand up, try contracting your abdominal muscles or flexing your feet to elevate blood from your legs, or raise your arms over your head to get more blood to your brain. Walk in place once you stand. Your doctor may suggest increasing your salt intake or wearing support (compressive) stockings.

Orthostatic hypotension can be caused by certain medications or by treatable diseases, such as diabetes or, surprisingly, high blood pressure. Dizziness, weakness, fatigue, and other symptoms associated with chronic low blood pressure (including depression and

anxiety) may have other causes, so see your doctor if you often have such problems.

**Q** *Does consuming too much iodine carry health risks, especially a cancer risk? For years I've taken a kelp tablet plus a vitamin/mineral supplement with iodine—about 300 micrograms daily in all.* J.M., CHICAGO

**A** Most people who take high levels of iodine are not adversely affected. The body is remarkably tolerant of high levels. There is one exception: in those who have been iodine-deficient, especially the elderly, very high intakes can cause thyroid disease. But it's hard to say how much is too much. A healthy person can probably consume up to 2,000 micrograms daily without harm, though some researchers believe 1,000 micrograms should be the limit.

In any case, we don't think you need supplemental iodine. The daily recommended intake is at least 150 micrograms; Americans get about twice that much from the average 2,000-calorie diet. Iodine is plentiful in the food supply. Seafood is an excellent source. Dairy products also supply some—for instance, a cup of yogurt has about 75 micrograms. But the amount in foods is variable.

We've long recommended limiting salt intake to 2,400 milligrams of sodium a day. We do think the salt you use should be iodized. A quarter teaspoon (containing 500 milligrams of sodium) has about 100 micrograms of iodine. Sea salt is not a good source.

Iodine is essential for proper thyroid functioning and for mental development. Iodine was once lacking in the American diet, especially in the Great Lakes region, where deficiency diseases such as goiter (enlarged thyroid) were once common. The introduction of iodized salt in 1922 did much to correct this.

A recent government survey showed that Americans have decreased their iodine intake over the last 20 years—no one is sure why this is happening. Levels are still within the desirable range, but researchers plan to monitor the trend.

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*If you have a question you would like to see answered in the Wellness Letter, write to Ask the Experts, PMB 157, 2018 Shattuck Avenue, Berkeley, CA 94704 (or go to the Subscriber's Corner at [www.wellnessletter.com](http://www.wellnessletter.com)). We regret that we are unable to publish answers to all questions or respond to letters personally.*

*Please address inquiries about new or existing subscriptions to the Wellness Letter Subscription Department, P.O. Box 420148, Palm Coast, Florida 32142 (or go to the Subscriber's Corner at [www.wellnessletter.com](http://www.wellnessletter.com)). Subscription price is \$28 per year (\$36 Canadian funds).*

## Upstairs/downstairs

You don't have to join a gym or even change into exercise clothes to have free access to a fine piece of exercise equipment: stairs. Climbing stairs regularly can improve cardiovascular fitness and strength. Here's how:

- Climbing stairs is primarily an aerobic activity—that is, it provides a cardiovascular workout. It will improve leg strength, too, but only up to a point. Once your leg muscles adapt to your body weight, you won't see more improvements.
- Start with 25 steps or so and gradually increase the number you climb.
- Stair-climbing machines are also a good option. You can increase the resistance to boost your workout. Some machines also give you an upper-body workout—via moving handles—while you climb. Leaning on the console or hanging onto the handrails will reduce your workout.
- Whether on a machine or the stairs, keep your back erect or bend slightly forward from your hips.
- Climbing two steps at a time is good exercise for major leg muscles (notably the quadriceps) and buttocks (gluteal muscles), especially for taller people. But people with knee problems should be wary of trying this; and if your legs are short you may risk injuring groin muscles.
- Going down stairs is good exercise, too. It uses the thigh muscles—quadriceps and, to some extent, the hamstrings. Be careful not to overextend or lock your knees as you go down. If you go down stairs (or down-hill) a lot, you may put excessive strain on the knees and develop sore quadriceps.
- To boost fitness, alternate a moderate pace with brief intervals at a faster pace.

[www.wellnessletter.com](http://www.wellnessletter.com)

This month's **Subscriber's Corner** provides more information about posture and back pain, women and heart disease, and other articles related to topics in this issue.

The new feature in **Foundations** discusses how to build strong bones. Our website also has all our articles on dietary supplements, all our 1999 issues, a three-year index, healthy recipes, and much more.

**THIS MONTH'S PASSWORD:** water

## As time goes by

The average American, it has been estimated, gains five pounds between Thanksgiving and New Year's. Many of us feel it's closer to 10 pounds right after Thanksgiving dinner. But is this true? No. According to a new study in the *New England Journal of Medicine*, the average holiday weight gain is only about a pound. But this is not necessarily good news, because that pound is usually there to stay, and will be followed by another pound the next year. The authors of the study conclude that this "probably contributes to the increase in body weight that frequently occurs during adulthood." This holiday season, maybe it's a good idea to turn down second helpings. Take a walk after dinner instead of a nap. And add a gym membership and a new pair of aerobic shoes to your holiday wish list.

## Wellness made easy

- ✓ Short-term memory problems—and fears about Alzheimer's disease—are a common part of growing older. **But don't assume that memory loss beyond the normal range necessarily signals Alzheimer's or other forms of dementia.** According to a new study from Danish scientists of 758 people with severe memory problems, only 43% turned out to have Alzheimer's. Many of the others had treatable conditions that caused their memory loss—depression or thyroid disease, for example. Always see a doctor about failing memory. In many cases, something can be done.
- ✓ If you're doing interior painting, try to schedule it for a time of year when you can leave the windows open for two or three days. **Open windows will improve ventilation and restore the quality of your indoor air. Window-mounted exhaust fans will help, too.** This is particularly important if your household includes infants or small children, a pregnant woman, anybody with breathing problems, or a frail elderly person. Oil-based paints emit the most vapors. Whoever is doing the painting should take frequent fresh-air breaks.
- ✓ A bargain is a great thing, but **look carefully before you buy secondhand lamps, hair dryers, or children's furnishings.** Old cribs and children's car seats, for example, may not meet current safety standards. Halogen torchiere floor lamps may lack a wire or glass guard and are thus a fire hazard. Hair dryers may be from the dark ages, electrically speaking—don't buy one without a label from a major testing lab, such as Underwriters Laboratory, and a large rectangular GFCI (ground-fault circuit interrupter) plug at the end of the cord. This plug is designed to protect you from shock or electrocution by shutting off the electricity if the dryer gets wet. It's also a good idea to have GFCIs installed in wall outlets. If your bathroom does not have such outlets, you can buy a portable one at any hardware store.
- ✓ **Don't use mothballs:** they are among the most toxic household products on the market. Mothballs or camphor balls containing naphthalene can be fatal to small children who swallow them. Other kinds of mothballs contain potential carcinogens. All are air pollutants. Cedar chips and dried lavender are also sold for moth protection, but there's no evidence they work, and they are also a hazard if kids swallow them. How do you save your clothes from moths without mothballs? **Before storing, send woollens to the dry cleaner and wash the washables.** (Moths love spots of food, urine, or perspiration.) Then store clothes in a taped box or sealed bag. Keep your closet walls and floors clean—lint is a good hiding place for moth larvae.
- ✓ Half of all pregnancies in the U.S. are unintended, resulting in 1.4 million abortions and 1.1 million unwanted births every year. It's safe to assume that most of these women do not know that six types of oral contraceptives (OCs), taken within 72 hours of unprotected intercourse, can avert pregnancy in 75% of cases. Many women who do know about emergency OCs may not have a doctor to prescribe them. The pills can prevent ovulation, disrupt fertilization by sperm, or prevent a fertilized egg from implanting in the uterine wall. **If you need emergency OCs—for instance, after a condom breaks—contact your physician or a contraceptive clinic to get the pills.** The FDA has approved two prescription kits especially for emergencies. The pills are safe and inexpensive (about \$20 for the kit). Emergency OCs should never substitute for ongoing contraceptive methods. There's a hotline that supplies information about emergency contraception and referrals to doctors and clinics in your area: 888-NOT-2-LATE. There's also an excellent website: [ec.princeton.edu](http://ec.princeton.edu).



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