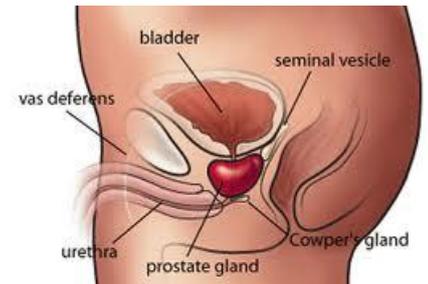


The PSA Test.



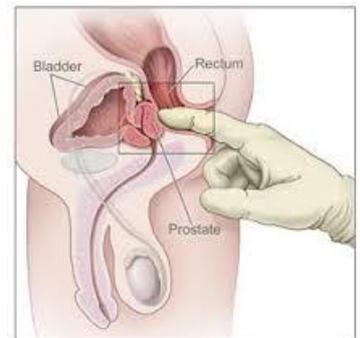
The PSA test is used primarily to screen for prostate cancer. It measures the amount of prostate-specific antigen (PSA) in your blood. PSA is a protein produced in the prostate, a small gland that sits below a man's bladder. PSA is mostly found in semen, which also is produced in the prostate. Small amounts of PSA ordinarily circulate in the blood.

The PSA test can detect high levels of PSA that may indicate the presence of prostate cancer. However, many other conditions, such as an enlarged or inflamed prostate, can also increase PSA levels. Use of the PSA test is controversial. It's important to discuss with your doctor whether you should get a PSA test and what the results may mean.



Prostate cancer is the most common nonskin cancer in men, and it's the leading cause of cancer-related death in men. Early detection may be an important tool in getting appropriate and timely treatment. Men with prostate cancer may have elevated levels of PSA but many noncancerous conditions can also increase a man's PSA level. Although the PSA test can detect high levels of PSA in the blood, the test doesn't provide precise diagnostic information about the condition of the prostate.

It is important to remember that the PSA test is only one tool used to screen for early signs of prostate cancer. Another common screening test, usually done in addition to a PSA test, is a digital rectal exam. In this intrusive test, your doctor inserts a lubricated, gloved finger into your rectum to reach the prostate. By feeling or pressing on the prostate, the doctor may be able to judge whether it has abnormal lumps or hard areas.



Neither the PSA test nor the digital rectal exam provides enough information for your doctor to diagnose prostate cancer. Abnormal results in these tests may lead your doctor to order a prostate biopsy. During this procedure, samples of tissue are removed for laboratory examination. A diagnosis of cancer is based on the biopsy results.

For men who have already been diagnosed with prostate cancer, the PSA test may be used to:

- Help decide if and when to begin treatment
- Judge the effectiveness of a treatment
- Check for recurring cancer

A PSA test is done by examining a blood sample

You might think that any test indicating whether you might have cancer would be beneficial. Indeed, a PSA test can often detect prostate cancer at an early stage but to judge the benefit of the test, it's important to know if early detection and early treatment will improve treatment outcomes and decrease the number of deaths from prostate cancer. Most experts argue that there isn't enough evidence to answer this question.

A key issue is the typical course of prostate cancer. If all cases of prostate cancer progressed rapidly and caused poor health and death, then early detection clearly would be a good thing. However, prostate cancer usually progresses slowly over many years, and the majority of cases are diagnosed in men older than age 65. Therefore, a man may have prostate cancer that never causes symptoms or becomes a medical problem during his lifetime.

Limitations of the test.

The limitations of the PSA test make it difficult to judge its benefits and risks. These limitations include:

- **PSA-raising factors.** Besides cancer, other conditions that can raise PSA levels include an enlarged prostate (benign prostatic hyperplasia, or BPH) and an inflamed or infected prostate (prostatitis). Also, PSA levels normally increase with age.
- **PSA-lowering factors.** Medications to treat BPH and some dietary supplements taken for prostate health can lower PSA levels.
- **Misleading results.** The test doesn't always provide an accurate result. A positive result on a PSA test (a PSA level high enough to suggest you may have cancer) doesn't necessarily mean you have cancer. And some men with negative results are later diagnosed with prostate cancer.
- **Overdiagnosis.** Studies have estimated that between 29 and 44 per cent of men with prostate cancer detected by PSA tests have tumors that wouldn't result in symptoms during their lifetimes. These symptom-free tumors are considered overdiagnoses, identification of cancer not likely to cause poor health or to present a risk to the person's life.

There are risks in taking the PSA test and these relate to the choices you make based on the test results, such as the decision to undergo further testing and treatment for prostate cancer.

The risks include:

- **Biopsy issues.** A biopsy is an expensive, invasive procedure that carries its own risks, including pain, bleeding and infection.
- **Psychological effects.** False-positive test results (high PSA levels but no cancer found with biopsy) can produce a significant amount of anxiety or distress. You may be inclined to worry about whether the PSA test or the biopsy was correct. If you are diagnosed with prostate cancer, but it appears to be a slow-growing tumor that doesn't result in illness, you may experience significant anxiety just knowing it's there.



Recommendations.

A number of major professional organizations and government agencies have weighed in on the benefits and [risks of PSA testing](#). The American Cancer Society, the American Urological Association, the American College of Preventive Medicine, the Centres for Disease Control and Prevention, and the U.S. Preventive Services Task Force all recognize the controversy surrounding screening with the PSA test and the lack of firm evidence that screening can prevent deaths from prostate cancer. Other points of agreement include:

- **Screening needs to be an individualized decision.** All of the organizations recommend that doctors discuss the benefits and risks of PSA testing with men at a certain age or in high-risk groups. Doctors should help men make their own decisions about screening, based on age, risk factors, life expectancy and personal preferences.
- **Older men generally don't need to be screened.** Most organizations recommend that screening isn't necessary for men age 75 and older or those who aren't expected to live more than 10 years. The American Urological Association advises that this decision should be made on an individual basis.
- **Men at high risk should discuss screening at an earlier age.** Some groups recommend earlier discussions for men in high-risk groups.

The American Cancer Society and the American College of Preventive Medicine recommend that doctors provide information about prostate cancer screening to men starting at age 50. These organizations also suggest that men in high-risk groups could benefit from this information at age 45 or 40, depending on their level of risk.

The U.S. Preventive Services Task Force (USPSTF) recommends against PSA-based screening for men who do not have symptoms that are highly suspicious for prostate cancer. The USPSTF states that PSA testing in healthy men, regardless of age, offers no net benefit or that the harms outweigh the benefits. The American Urological Association recommends that men talk to their doctors about getting a baseline PSA test at age 40. This could help them determine when to screen in the future and to understand possible future risk and test results. Results of PSA tests are reported as nanograms (one billionth of a gram) of PSA per millilitre of blood (ng/mL) but there's no specific cut-off point between a normal and abnormal PSA level. Your doctor might recommend a prostate biopsy based on results of your PSA test and a digital rectal exam, along with other factors.

Your doctor may use other ways of interpreting PSA results before making decisions about ordering a biopsy to test for cancerous tissue. These other methods are intended to improve the accuracy of the PSA test as a screening tool. As with the standard PSA test, there's little clinical evidence that these variations on the PSA screening test improve treatment outcomes or decrease the number of deaths. Researchers continue investigating these strategies to determine whether they provide a measurable benefit. Variations of the PSA test include:



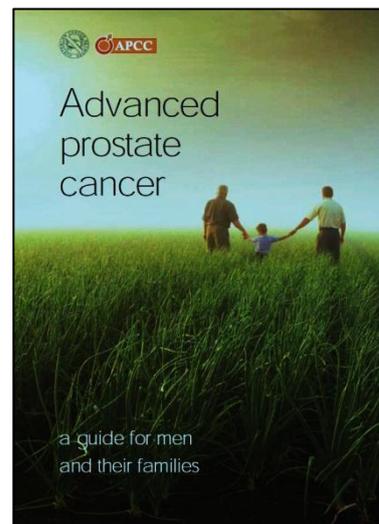
- **PSA velocity.** PSA velocity is the change in PSA levels over time. A rapid rise in PSA may indicate the presence of cancer or an aggressive form of cancer.
- **Per centage of free PSA.** PSA circulates in the blood in two forms, either attached to certain blood proteins or unattached (free). If you have a high PSA level but a low per centage of free PSA, it may be more likely that you have prostate cancer.

Before getting a PSA test, talk to your doctor about the benefits and risks. If you decide that a PSA test is right for you, ask your doctor:

- When you will discuss the results.
- What kinds of recommendations he or she might make if the results are positive.
- How often you should repeat the test if the results are negative.

Discussing these issues beforehand may make it easier for you to learn the results of your test and make appropriate decisions afterward.

There is an excellent book titled “Advanced Prostate Cancer” which was prepared by the Australian Cancer Network and Australian Prostate Cancer Collaboration and you can download a free copy [HERE](#).



Water: How much should you drink every day?



Water is essential to good health, yet needs vary by individual. These guidelines can help ensure you drink enough fluids.

How much water should you drink each day? It's a simple question with no easy answer. Studies have produced varying recommendations over the years, but in truth, your water needs depend on many factors, including your health, how active you are and where you live. Although no single formula fits everyone, knowing more about your body's need for fluids will help you estimate how much water to drink each day.



Functions of water in the body.

Water is your body's principal chemical component and makes up about 60 per cent of your body weight. Every system in your body depends on water. For example, water flushes toxins out of vital organs, carries nutrients to your cells and provides a moist environment for ear, nose and throat tissues. Lack of water can lead to dehydration, a condition that occurs when

you don't have enough water in your body to carry out normal functions. Even mild dehydration can drain your energy and make you tired.

Every day you lose water through your breath, perspiration, urine and bowel movements. For your body to function properly, you must replenish its water supply by consuming beverages and foods that contain water.

So how much fluid does the average, healthy adult living in a temperate climate need? The US Institute of Medicine determined that an adequate intake (AI) for men is roughly 3 litres (about 13 cups) of total beverages a day. The AI for women is 2.2 litres (about 9 cups) of total beverages a day.

What about the advice to drink eight glasses a day?

Everyone has heard the advice, "Drink 8 X 240 ml glasses of water a day." That's about 1.9 litres, which isn't that different from the Institute of Medicine recommendations. Although the 8 glasses rule isn't supported by hard evidence, it remains popular because it's easy to remember. Just keep in mind that the rule should be reframed as: "Drink at least eight X 240 ml glasses of fluid a day," because all fluids count toward the daily total.

You may need to modify your total fluid intake depending on how active you are, the climate you live in, your health status, and if you're pregnant or breast-feeding.



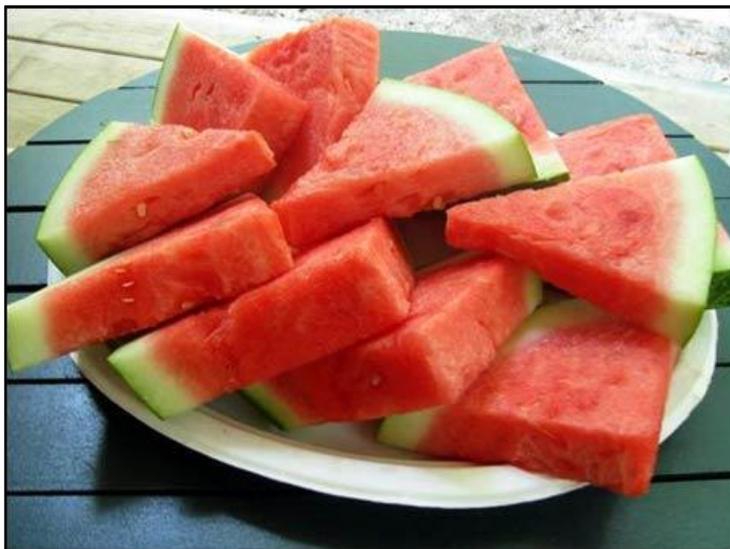
- **Exercise.** If you exercise or engage in any activity that makes you sweat, you need to drink extra water to compensate for the fluid loss. An extra 400 to 600 millilitres (about 1½ to 2½ cups) of water should suffice for short bouts of exercise, but intense exercise lasting more than an hour (for example, running a marathon) requires more fluid intake. How much additional fluid you need depends on how much you sweat during exercise, and the duration and type of exercise. During long bouts of intense exercise, it's best to use a sports drink that contains sodium, as this will help replace sodium lost in sweat and reduce the chances of developing hyponatremia, which can be life-threatening. Also, continue to replace fluids after you're finished exercising.
- **Environment.** Hot or humid weather can make you sweat and requires additional intake of fluid. Heated indoor air also can cause your skin to lose moisture during wintertime. Further, altitudes greater than 8,200 feet (2,500 meters) may trigger increased urination and more rapid breathing, which use up more of your fluid reserves.
- **Illnesses or health conditions.** When you have fever, vomiting or diarrhea, your body loses additional fluids. In these cases, you should drink more water. In some cases, your doctor may recommend oral rehydration solutions, such as Gatorade, Powerade or CeraLyte. Also, you may need increased fluid intake if you develop certain conditions, including bladder infections or urinary tract stones. On the other hand, some conditions such as heart failure and some types of kidney, liver and adrenal diseases may impair excretion of water and even require that you limit your fluid intake.

- **Pregnancy or breast-feeding.** Women who are expecting or breast-feeding need additional fluids to stay hydrated. Large amounts of fluid are used especially when nursing. The Institute of Medicine recommends that pregnant women drink 2.3 litres (about 10 cups) of fluids daily and women who breast-feed consume 3.1 litres (about 13 cups) of fluids a day.

Other sources of water.

Although it's a great idea to keep water within reach at all times, you don't need to rely only on what you drink to meet your fluid needs. What you eat also provides a significant portion of your needs. On average, food provides about 20 per cent of total water intake. For example, many fruits and vegetables, such as watermelon and tomatoes, are, by weight, made up of 90 per cent water. In addition, beverages such as milk and juice are composed mostly of water. Even beer, wine and caffeinated beverages, such as coffee, tea or soft drink can contribute, but these should not be a major portion of your daily total fluid intake. Water is still your best bet because it's calorie-free, inexpensive and readily available.

Generally if you drink enough fluid so that you rarely feel thirsty and produce 1.5 litres or more of colourless or light yellow urine a day, your fluid intake is probably adequate. If you're concerned about your fluid intake or have health issues, check with your doctor or a registered dietician. He or she can help you determine the amount of water that's right for you.



To ward off dehydration and make sure your body has the fluids it needs, make water your beverage of choice. It's also a good idea to:

- Drink a glass of water or other calorie-free or low-calorie beverage with each meal and between each meal.
- Drink water before, during and after exercise.

Although uncommon, it is possible to drink too much water. When your kidneys are unable to excrete the excess water, the electrolyte (mineral) content of the blood is diluted, resulting in low sodium levels in the blood, a condition called [hyponatremia](#). Endurance athletes, such as marathon runners, who drink large amounts of water, are at high risk of hyponatremia. In general, though, drinking too much water is rare in healthy adults who eat an average diet.

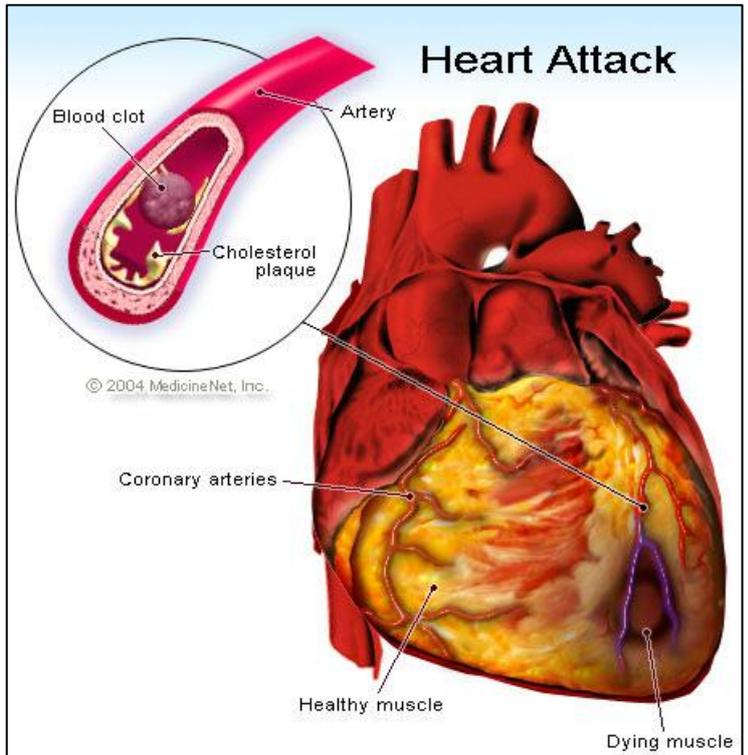
Why are they called "stands" when they are made for sitting?

Heart Attack.

A heart attack usually occurs when a blood clot blocks the flow of blood through a coronary artery, a blood vessel that feeds blood to a part of the heart muscle. Interrupted blood flow to your heart can damage or destroy a part of the heart muscle.

A heart attack, also called a myocardial infarction, can be fatal. This is often because people confuse their symptoms with a minor illness, like indigestion, and delay going to the hospital. They try to tough out their symptoms and receive treatment too late. Treatment for a heart attack has improved dramatically over the years. It is crucial to promptly recognize symptoms and call 000 or emergency medical help if you think you might be having a heart attack.

Your overall lifestyle, what you eat, how often you exercise and the way you deal with stress, plays a role in your recovery from a heart attack. In addition, a healthy lifestyle can help you prevent a heart attack by controlling risk factors that contribute to the narrowing of the coronary arteries that supply blood to your heart.



Common heart attack symptoms include:

- Pressure, a feeling of fullness or a squeezing pain in the centre of your chest that lasts for more than a few minutes.
- Pain extending beyond your chest to your shoulder, arm, back, or even to your teeth and jaw.
- Increasing episodes of chest pain
- Prolonged pain in the upper abdomen.
- Shortness of breath.
- Sweating.
- Impending sense of doom.
- Fainting.
- Nausea and vomiting.



Additional, or different, heart attack signs and symptoms in women may include:

- Heartburn or abdominal pain.
- Clammy skin.

- Lightheadedness or dizziness.
- Unusual or unexplained fatigue.

Heart attack symptoms vary. Not all people who have heart attacks experience the same symptoms or experience them to the same degree. Many heart attacks aren't as dramatic as the ones you've seen on TV. Some people have no symptoms at all. Still, the more signs and symptoms you have, the greater the likelihood that you may be having a heart attack.

A heart attack can occur anytime — at work or play, while you're resting, or while you're in motion. Some heart attacks strike suddenly, but many people who experience a heart attack have warning signs and symptoms hours, days or weeks in advance. The earliest warning of a heart attack may be recurrent chest pain (angina) that's triggered by exertion and relieved by rest. Angina is caused by a temporary decrease in blood flow to the heart.



Many people confuse a heart attack with a condition in which your heart suddenly stops (sudden cardiac arrest). Sudden cardiac arrest occurs when an electrical disturbance in your heart disrupts its pumping action and causes blood to stop flowing to the rest of your body. Heart attack is the most common cause, but not the only cause, of cardiac arrest.

When to see a doctor.

During a heart attack, act immediately. Many people wait too long because they don't recognize the important signs and symptoms. Take these steps:

- Call for emergency medical help. If you suspect you're having a heart attack, don't hesitate. Immediately call 000. If you don't have access to emergency medical services, have someone drive you to the nearest hospital. Drive yourself only as a last resort, if there are absolutely no other options. Driving yourself puts you and others at risk if your condition suddenly worsens.
- Take nitroglycerin, if prescribed. If your doctor has prescribed nitroglycerin, take it as instructed while awaiting the arrival of emergency medical personnel.
- Take aspirin, if recommended. If you're concerned about your heart attack risk, ask your doctor if chewing an aspirin tablet if you have heart attack symptoms is a good idea. Taking aspirin during a heart attack could reduce the damage to your heart by making your blood less likely to clot. Aspirin can interact with other medications, however, so don't take an aspirin unless your doctor or emergency medical personnel recommend it.

Why does "slow down" and "slow up" mean the same thing?**What to do if you see someone having a heart attack.**

If you encounter someone who is unconscious from a presumed heart attack, call for emergency medical help. If you have received training in emergency procedures, begin cardiopulmonary resuscitation (CPR). This helps deliver oxygen to the body and brain.

Regardless of whether or not you've been trained, you should begin CPR with chest compressions. Press down about five centimetres on the person's chest for each compression at a rate of about 100 a minute. If you've been trained in CPR, check the person's airway and deliver rescue breaths after every 30 compressions. If you haven't been trained, continue doing compressions only.

In the initial minutes, a heart attack can also trigger ventricular fibrillation, a condition in which the heart quivers uselessly. Without immediate treatment, ventricular fibrillation leads to sudden death. The timely use of an automatic external defibrillator (AED), which shocks the heart back into a normal rhythm, can provide emergency treatment before a person having a heart attack reaches the hospital.

A heart attack occurs when one or more of the arteries supplying your heart with oxygen-rich blood (coronary arteries) become blocked. Over time, a coronary artery can become narrowed from the build up of cholesterol. This build up, collectively known as plaques, in arteries throughout the body is called atherosclerosis.

During a heart attack, one of these plaques can rupture and a blood clot forms on the site of the rupture. If the clot is large enough, it can completely block the flow of blood through the artery. When your coronary arteries have narrowed due to atherosclerosis, the condition is known as coronary artery disease. Coronary artery disease is the underlying cause of most heart attacks.

An uncommon cause of a heart attack is a spasm of a coronary artery that shuts down blood flow to part of the heart muscle. Drugs, such as cocaine, can cause such a life-threatening spasm. A heart attack can also occur due to a tear in the heart artery (coronary artery dissection). Other uncommon causes of heart attack include small blood clots or tumours that have travelled from other parts of the body (coronary embolism).

A heart attack is the end of a process that typically evolves over several hours. With each passing minute, more heart tissue is deprived of blood and deteriorates or dies. However, if blood flow can be restored in time, damage to the heart can be limited or prevented.

**Why does "fat chance" and "slim chance" mean the same thing?**

Risk Factors

Certain factors contribute to the unwanted build up of fatty deposits (atherosclerosis) that narrows arteries throughout your body, including arteries to your heart. You can improve or eliminate many of these risk factors to reduce your chances of having a first or subsequent heart attack.

Heart attack risk factors include:

- **Age.** Men who are 45 or older and women who are 55 or older are more likely to have a heart attack than are younger men and women.
- **Tobacco.** Smoking and long-term exposure to second-hand smoke damage the interior walls of arteries, including arteries to your heart, allowing deposits of cholesterol and other substances to collect and slow blood flow. Smoking also increases the risk of deadly blood clots forming and causing a heart attack.
- **Diabetes.** Diabetes is the inability of your body to adequately produce insulin or respond to insulin need properly. Insulin, a hormone secreted by your pancreas, allows your body to use glucose, which is a form of sugar from foods. Diabetes can occur in childhood, but it appears more often in middle age and among overweight people. Diabetes greatly increases your risk of a heart attack.
- **High blood pressure.** Over time, high blood pressure can damage arteries that feed your heart by accelerating atherosclerosis. The risk of high blood pressure increases as you age, but the main culprits for most people are eating a diet too high in salt and being overweight. High blood pressure can also be an inherited problem.
- **High blood cholesterol or triglyceride levels.** Cholesterol is a major part of the deposits that can narrow arteries throughout your body, including those that supply your heart. A high level of the wrong kind of cholesterol in your blood increases your risk of a heart attack. Low-density lipoprotein (LDL) cholesterol (the "bad" cholesterol) is most likely to narrow arteries. A high LDL level is undesirable and is often a result of a diet high in saturated fats and cholesterol. A high level of triglycerides, a type of blood fat related to your diet, also is undesirable. However, a high level of high-density lipoprotein (HDL) cholesterol (the "good" cholesterol), which helps the body clean up excess cholesterol, is desirable and lowers your risk of heart attack.
- **Family history of heart attack.** If your siblings, parents or grandparents have had heart attacks, you may be at increased risk. Your family may have a genetic condition that raises unwanted blood cholesterol levels. High blood pressure also can run in families.
- **Lack of physical activity.** An inactive lifestyle contributes to high blood cholesterol levels and obesity. People who get regular aerobic exercise have better cardiovascular fitness, which decreases their overall risk of heart attack. Exercise is also beneficial in lowering high blood pressure.



- **Obesity.** Obese people have a high proportion of body fat (a body mass index of 30 or higher). Obesity raises the risk of heart disease because it's associated with high blood cholesterol levels, high blood pressure and diabetes.
- **Stress.** You may respond to stress in ways that can increase your risk of a heart attack. If you're under stress, you may overeat or smoke from nervous tension. Too much stress, as well as anger, can also raise your blood pressure.
- **Illegal drug use.** Using stimulant drugs, such as cocaine or amphetamines, can trigger a spasm of your coronary arteries that can cause a heart attack.

Heart attack complications are often related to the damage done to your heart during a heart attack. This damage can lead to the following conditions:

- **Abnormal heart rhythms (arrhythmias).** If your heart muscle is damaged from a heart attack, electrical "short circuits" can develop, resulting in abnormal heart rhythms, some of which can be serious, even fatal.
- **Heart failure.** The amount of damaged tissue in your heart may be so great that the remaining heart muscle can't do an adequate job of pumping blood out of your heart. This decreases blood flow to tissues and organs throughout your body and may produce shortness of breath, fatigue, and swelling in your ankles and feet. Heart failure may be a temporary problem that goes away after your heart, which has been stunned by a heart attack, recovers over a few days to weeks. However, it can also be a chronic condition resulting from extensive and permanent damage to your heart following your heart attack.
- **Heart rupture.** Areas of heart muscle weakened by a heart attack can rupture, leaving a hole in part of the heart. This rupture is often fatal.
- **Valve problems.** Heart valves damaged during a heart attack may develop severe, life-threatening leakage problems.

Why do we say something is out of whack? What is a whack?