

## What Is Erectile Dysfunction?

Erectile dysfunction, also known as impotence, is the inability to attain or maintain an erection of the penis adequate for the sexual satisfaction of both partners. It can be devastating to the self-esteem of a man and of his partner. As many as 20 million American men are afflicted on a continuing basis, and transient episodes affect nearly all adult males. But nearly all men who seek treatment find some measure of relief.

## What Causes It?

As recently as two decades ago, physicians tended to blame erectile dysfunction on psychological problems or, with older men, on the normal aging process. Today, the pendulum of medical opinion has swung away from both notions. While arousal takes longer as a man ages, chronic erectile dysfunction warrants medical attention. Moreover, the difficulty is often organic in origin. Today, urologists believe that physical factors underlie perhaps 90% of cases of persistent erectile dysfunction in men over age 50.

Because erection is primarily a vascular event, it is not surprising that the most common causes in this age group are conditions that block blood flow to the penis, such as atherosclerosis or diabetes. Another vascular cause may be a faulty vein, which lets blood drain too quickly from the penis. Other physical disorders, as well as hormonal imbalances and certain operations, may also result in erectile dysfunction.

The vascular processes that produce an erection are controlled by the nervous system, and certain prescription drugs may have the side effect of interfering with necessary nerve signals. Among the possible culprits are a variety of stimulants, sedatives, diuretics, antihistamines, and agents to treat high blood pressure, cancer, or depression. In addition, alcohol, tobacco, and illegal drugs, such as marijuana, may contribute to the dysfunction.

With younger men, psychological problems are the likeliest reason for erectile dysfunction. Tension and anxiety may arise from poor communication with the sexual partner or a difference in sexual preferences. The sexual difficulties may also be linked to depression, feelings of inadequacy, personal sexual fears, rejection by parents or peers, or sexual abuse in childhood.

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## What is It?

Erections start in the brain. When sights, sounds, smells, sensations, or thoughts make a man sexually aroused, his central nervous system signals the arteries in his penis to relax. The blood flow to his penis increases to 16 times the normal level, the veins that carry blood away from the penis are effectively blocked, and an erection is born. This extra blood stays in the penis as long as the man remains aroused or until he ejaculates.

But sometimes, there's a breakdown in the process. If the brain doesn't send the right signals, if the nerves that pass the signals from the brain to the penis are damaged, or if the arteries can't respond to those signals, a man will be unable to have an erection.

Contrary to popular belief, erectile dysfunction - sometimes called impotence -- is not inevitable with age (although it is more common in older men). And although the mind can play a major role in sexual function and desire, most erectile problems have an underlying physical cause. But worrying about the condition will definitely exacerbate it, setting off a cycle of "performance anxiety" that only makes the problem worse, so it's important to seek help.

Many things can interfere with one or more of the steps necessary to achieve an erection, but medically speaking, it usually boils down to a problem of blood flow. If you suffer from erectile dysfunction, one of the following factors is probably to blame:

- Cardiovascular disease. High blood pressure, atherosclerosis (narrowing or "hardening" of the arteries), and other disorders of the heart and blood vessels can hamper the flow of blood to the penis.
- Medications. Many commonly used drugs can short-circuit the process that leads to erections by interrupting nerve impulses or blood flow to the penis. Some examples: antihistamines, antidepressants, tranquilizers, appetite suppressants, cimetidine (an ulcer drug), and blood pressure medications such as beta blockers and diuretics. If you develop erection difficulties while taking antidepressants or blood pressure medicines, remember that the conditions you're taking the medicines to remedy could also be partly to blame, so stopping them isn't necessarily the answer. Always get your doctor's advice before you stop taking any prescription medicine.
- Diabetes. Because this disease can damage nerves that control blood flow and blood vessels themselves, blood flow to the penis can be impaired.
- Prostate surgery. Not long ago, almost all men had problems achieving erections after undergoing surgery for prostate cancer. Such problems are still a common side effect of prostate surgery, as well as radiation treatment for prostate or colorectal cancer. But new surgical techniques can often spare the nerves that supply the penis, so sexual function need not be a problem for these patients.
- Smoking. Cigarette smoking constricts and damages blood vessels, reducing blood flow to the penis. Research suggests that men who smoke and have other health problems, such as heart disease, are more likely to have trouble with erections.
- Psychological factors. It's no secret that relationship problems have a direct effect on a couple's sex life. Feelings of resentment or hostility -- harbored by either partner -- can derail intimacy. And stress, anxiety, guilt feelings, depression, and low self-esteem can all trigger or compound erectile dysfunction. (Anxiety, after all, has a direct physical effect: It makes the brain release chemicals that constrict the smooth muscles and blood vessels around the penis, limiting blood flow.)

- Other factors. Alcoholism, pelvic injuries (such as fractures), damage to the nerves that control blood flow to the penis, multiple sclerosis, and below-normal levels of testosterone can all lead to erectile dysfunction.

Reviewed by [Gary D. Vogin](#), MD, March 2002.

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## **What Are the Symptoms?**

Being unable to have or keep an erection is the defining mark of erectile dysfunction. The problem may manifest itself in several ways. If the dysfunction:

- Is transient or appearing only occasionally, the problem is not likely to be serious; all men experience problems with erections at some time in their lives.
- Develops gradually and persistently, there is probably a physical cause; this is generally the case with chronic impotence.
- Develops abruptly but you still have early-morning erections and are able to have an erection while masturbating, the problem is likely to have a psychological cause.

## **Call Your Doctor If:**

- Erectile dysfunction is linked with anxiety or threatens your sexual relationship. At a minimum, your physician can help clear up misinformation, which commonly exacerbates sexual problems.
- Erectile dysfunction persists. Physical causes can be harbingers of more general, potentially dangerous conditions; for example, narrowing of the penile artery may indicate coronary artery disease. For the dysfunction itself, a physician may suggest a medication that will allow for normal erections or might advise the use of a mechanical device if there is no cure.

## **What Are the Treatments?**

If you are troubled by occasional erectile dysfunction, remember that arousal takes longer as you get older and that satisfaction should not be equated with performance. If your dysfunction is severe and persistent, you should seek medical help. The number of treatment options has increased in recent years.

Many doctors will recommend changes in lifestyle as a first step toward. Cutting back on alcohol, tobacco, and illegal drug use can help alleviate the problem. Changing prescription medications might be in order, as some medicines not only interfere with achieving erection but can also decrease your interest in sex and the ability to reach orgasm. Reducing stress, eating well, and exercising may also be helpful.

## **Conventional Medicine**

The most common treatment used now is the drug sildenafil (Viagra). It is effective in about seven out of 10 men who use it. The pill is taken one hour before intercourse and, when effective, allows a normal erection with stimulation. It is not to be used by men who take any kind of nitroglycerin or nitrate drugs because the combination can result in severely low blood pressure. Another option for the treatment of erectile dysfunction is a vacuum inflation device. This instrument draws blood into the penis by creating negative pressure around it; a rubber ring is then slipped over the base of the penis to maintain the erection. The ring should be removed after 30 minutes to restore circulation.

An erection can also be produced by self-injection of papaverine or prostaglandin before sex; these drugs may also improve long-term potency and penile blood flow. Prostaglandins can also be inserted into the urethra to produce erections. Medically administered testosterone shots help some men, but no specific level of the hormone guarantees potency.

A special type of exercise can help those whose erectile dysfunction is caused by leaking veins: Kegel exercises. Often prescribed for women with urinary incontinence, these exercises consist of contracting and relaxing the pelvic muscles -- the same ones that let you stop urinating in mid-flow. By strengthening these muscles, men may be able to achieve erection without resorting to surgery.

For blood-vessel problems, vascular surgery to open arteries leading to the penis benefits up to half the patients who opt for this treatment. The effectiveness of such surgery was oversold when it was first developed in the 1970s, but techniques have been improved.

When none of these therapies work, some men choose a penile implant. The least expensive is a semirigid type that produces a permanent erection. More sophisticated and expensive implants are inflated by a pump mechanism placed beneath the skin of the scrotum.

If the cause is judged to be psychological, it is crucial to review your relationship with your partner and to examine other possible sources of stress or tension in your life. A trained therapist can aid in these matters and may help unearth problems such as unreasonable guilt, performance anxiety, or inhibiting attitudes toward sex that were learned at an early age.

## **Alternative Medicine**

### **Acupuncture**

Men whose dysfunction has psychological foundations may be helped by acupuncture, which in traditional terms releases and rebalances the qi, or life force, by placing needles at specific "meridians" of the body. Medically the mechanism isn't known but involves the release of various nerve chemicals.

## **Aromatherapy**

The scents employed in aromatherapy may relax the amorously inclined and put you in the mood. Some evidence shows aromatherapy may actually increase blood flow to the penis. No specific scent has been proven to affect all men, so try several to find one that works for you.

## **Herbs and Supplements**

There's little evidence yet to support the use of herbs for treating erectile dysfunction. If you do choose to try herbs and supplements, inform your doctor and proceed with caution. Ginkgo has been shown to increase blood flow, but there is no direct proof that this leads to regained function for men. Ginseng and saw palmetto are two other popular herbs whose claims regarding erectile function have yet to be well proven. The amino acid arginine is being studied and may show promise in some cases of erectile dysfunction, but more research is needed.

## **Therapies That May Harm You**

Cell therapy (which, in the case of erectile dysfunction, involves transferring cells from a pig's gonads into humans) is hardly likely to work, very expensive, and illegal in the United States. Chelation therapy, a form of chemical purging supposedly good for improving vascular circulation, is unproven and may be dangerous. Magnetic field therapy may have some applications, but there is no evidence that it cures erectile dysfunction.

The herb yohimbe has also been purported to improve erectile dysfunction, but due to potential serious side effects, it cannot be sold over the counter in the United States. In its prescription drug form, it has not provided much relief.

## **How Can I Prevent Erectile Dysfunction?**

Because erectile dysfunction is often related to poor blood flow, take steps that improve your cardiovascular health: Control your blood pressure, cholesterol level, and medical conditions like diabetes, and don't smoke. Avoid alcohol and recreational drugs that may reduce sexual desire or affect your ability to maintain an erection. Discuss side effects of medications with your doctor. Try to establish open communication with your sexual partner as a way to ease tensions that could be affecting your performance. Remember that occasional problems with erections are normal. Worrying about past failures can interfere with present pleasure.

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