

What Is Erectile Dysfunction?

Erectile dysfunction is the inability to obtain or maintain a satisfactory erection. Of course, not every man will have an adequate erection every time. Emotional stress, fatigue and relationship problems may account for occasional episodes of erectile troubles. But if erection problems are persistent and interfere frequently with sexual activity, then a physician should evaluate the condition.

Doctors use the term erectile dysfunction carefully. Erectile dysfunction does not include other sexual problems such as inability to climax or reach an orgasm. Nor does it refer to premature ejaculation or decreased libido, which is a loss of interest in sex. Furthermore, it does not include the changes in sexual performance that occur as men age. Older men may take longer to achieve a rigid erection and the erection may not be as hard as it was when they were younger. But this is considered a normal, part of aging and not erectile dysfunction.

By some estimates, erectile dysfunction, or E.D., as it is commonly called, affects about 50 percent of men between the ages of 40 and 70. The National Institute of Health calculates that 30 million to 40 million men in the United States have some degree of erectile dysfunction. Experts say the high incidence of erectile dysfunction is due in part to an increase in prostate cancer. Surgery to treat prostate cancer carries a high risk of impotence afterwards.

What Causes Erectile Dysfunction?

Years ago, E.D. was thought to be largely the result of psychological or lifestyle problems. And, to be sure, stress, depression and troubles in a relationship may be to blame for erection problems. Smoking, heavy drinking and recreational drug use may also adversely affect a man's ability to have an erection. But research has shown that there may be a number of medical conditions responsible, as well. Any disease that affects nerves, arteries or veins may cause erectile dysfunction.

Certain medical conditions that affect hormones may also cause E.D., such as thyroid disease or adrenal disease. Medications prescribed to treat a variety of medical conditions such as hypertension and depression may affect a man's ability to have an erection, too. E.D. is not hereditary, but some conditions that may cause erectile dysfunction may tend to run in families.

Among the more common medical conditions that may cause E.D. are:

- Diseases that affect the arteries, such as hardening of the arteries, which causes decreased blood flow.
- Diabetes mellitus, which may affect nerves and blood vessels.
- Diseases that affect hormone production, including pituitary tumors and thyroid dysfunction.
- Chronic medical conditions, such as kidney failure, liver failure and AIDS.

- Diseases that affect nerve function including stroke, multiple sclerosis, Alzheimer's disease, Parkinson's disease and epilepsy.
- Trauma to the pelvis, such as a pelvic fracture or even long-distance bicycle riding, which may affect nerves and arteries.
- Pelvic surgery and pelvic irradiation, including radical prostatectomy and surgery for rectal and anal carcinomas.
- Peyronie's disease, a rare condition that affects certain tissues in the penis. The tissues become scarred, causing the penis to bend to the side.

How Does a Doctor Diagnose Erectile Dysfunction?

One of the most important things your doctor will do is discuss your medical and sexual history. Your doctor will want to know:

- How long you have had a problem with getting or maintaining an erection.
- If erection difficulties are an intermittent or a constant problem and whether you believe the problem is getting worse.
- If there are other factors in your life that may have led to erectile dysfunction, such as tensions in a relationship or at work.
- If you experience erectile dysfunction only with your partner.
- Whether you can achieve an erection if you masturbate.
- Whether you have erections when you wake up, which would indicate some ability to achieve an erection.
- Whether you have any pain with an erection.
- If you consider your erection problems just bothersome or deeply troubling to you.
- Whether your partner has asked you to seek therapy for E.D.

Your doctor also will want to know about your past medical and surgical history. That will involve a discussion of your current medications, allergies, smoking history, alcohol history and recreational drug use. Your doctor may ask whether you have gained or lost weight recently, and will want to know whether you feel stressed or depressed.

After that, your doctor will give you a detailed physical examination. Much of the focus will be on your neck, chest, abdomen and genitalia, which includes the testicles and penis. Your doctor will take your pulse and perform a rectal examination. You may be asked to take certain lab tests, including one to measure testosterone, which is the male hormone, and one to measure your prolactin level, which could indicate problems with the pituitary gland. Your doctor may order a blood count, as well as cholesterol and glucose, or blood sugar,

tests. Later, further tests may be done to determine the health of your kidneys, liver and thyroid.

After taking your history, performing a physical examination and looking over lab tests, your doctor may be able to determine the cause of your erectile dysfunction. However, your doctor may suggest further testing, such as ultrasound studies to measure blood flow during an erection or a study of your erection after injecting medication into the penis. Your doctor may recommend you see a specialist to discuss options for your erectile dysfunction treatment.

Physical Effects

Erectile dysfunction does not typically cause pain or other physical problems. But E.D. may be a symptom of other medical conditions that require treatment, such as coronary artery disease.

Emotional Effects

Sexuality is a complicated matter. It is shaped by cultural influences and exists within the context of a relationship. The effects of erectile dysfunction can be quite powerful and extend into many areas of a person's life. Consider the comments of a male patient who described how he felt when he began to experience difficulty getting and maintaining an erection:

"This was a devastating series of events. I cannot overstate the significance of this on my life. I soon stopped trying to have sex. I avoided any displays of affection that I thought might lead to requests for sexual intercourse. My sexual dysfunction made me feel worthless and emasculated. My personality changed. I lost my playfulness and my sense of humor. Perhaps worst of all, I felt that one of the most creative things in my life was now denied to me. I became withdrawn and depressed."

This patient was a highly educated, successful and articulate man, and yet it took him years to gather the courage to speak to his doctor about the problem because of shame and embarrassment. He had trouble finding the words to describe the problem.

We live in an age of extraordinary sexual explicitness. Sex is infused in every aspect of our culture. Sexy images are used to sell everything from perfume to power tools. No wonder people feel inadequate if they are not having an active -- even hyperactive -- sex life. And yet, for all the openness about sex, discussing sexual problems remains a taboo, especially for men. So powerful is the taboo that even finding the right words to describe the problem can be difficult. Certain words -- impotence, for example -- are loaded with more than merely sexual meaning. Some men report that using the phrase "sexual difficulties", instead of "impotence" or "dysfunction", can make discussing the problem less overwhelming.

While many couples can cope with sexual problems as a collaborative team on their own, counseling can be very helpful for those suffering from E.D. It helps men deal with the shame, embarrassment and depression they often experience with E.D. Counseling also helps couples deal with the impact of a man's sexual

difficulties on the relationship. To avoid the frustration of sexual failure, many men withdraw all affection from their partners. That can lead to estrangement and even, ultimately, to the end of the relationship. A sympathetic and experienced counselor can help a couple overcome the barriers to intimacy and protect the relationship from irreparable harm.

Often, counseling will reveal culturally shaped scripts and myths about sex that can undermine relationships over time. Among the common misconceptions are that "all normal sex must end in intercourse" or "the man is fully responsible for initiating and directing sexual activity and must satisfy both himself and his partner." Clearly, these are beliefs that can limit sexual practices and satisfaction for everyone. A counselor can help couples to explore mutually satisfying ways of being intimate together, improve communication and attention to each other's needs and preferences.

How to Cope With Erectile Dysfunction

Despite the high incidence of E.D., many patients are hesitant to discuss this problem with their doctor. If your doctor does not ask about potential erectile dysfunction, and this has been a problem for you, you should bring it up. Although most patients cannot be cured of E.D., there are a variety of therapies that could help you to have an adequate erection.

Nutrition, Exercise and Personal Habits

Since smoking, heavy alcohol use and recreational drug use can adversely affect erectile function, it is important to stop these habits. High cholesterol levels may cause hardening of the arteries, which can limit blood flow.

In that case, you should attempt to eat a low cholesterol diet and have your cholesterol levels monitored, if they have been elevated in the past. Exercise is important in maintaining cardiovascular health, which is also a significant risk factor for erectile dysfunction.

Some studies suggest that long-distance bicycle riding on a standard bicycle seat may cause erectile problems or numbness in the genitals, according to an article published recently in Urology Times. Researchers believe the constant pressure on the blood vessels or nerves that supply the penis can lead to E.D. Avid cyclists who experience problems may want to change to a padded seat and take shorter, but more frequent, bike rides. New bicycle seats are being designed to minimize the risk of erectile dysfunction.

Medications and Other Therapies

There are a variety of treatment options available for the treatment of erectile dysfunction. Patients should remember that these therapies will not cure E.D. They may help a man get an erection, but they will not restore normal erectile function.

Among the options for treatment are:

- Sex therapy
- Medications

- Intraurethral therapy
- Injection therapy
- Vacuum devices
- Penile prostheses

Deciding on Treatment

There is ongoing research to evaluate a variety of potential treatments, such as medications that promote increased blood flow to the penis. Researchers are also studying ointments that could be rubbed on the penis, as well as other therapies.

More importantly, some focus has been placed on how to prevent E.D. through better dietary and personal habits. However, a cure for erectile dysfunction is elusive and many questions remain unanswered.

Medication

Sildenafil, sold under the brand name Viagra, is a pill that took the market by storm almost two years ago. Men found it a far better treatment option than others currently on the market, such as vacuum pumps and injections, and it was a less expensive. Viagra costs about \$8 to \$10 per pill and some insurance companies will cover the cost if the erectile dysfunction is due to a medical condition.

Viagra works to prevent the breakdown of a chemical called cGMP, thus increasing blood flow into the penis. Generally, the pill is effective when taken 0.5 to 1.5 hours before intercourse. Physical stimulation, or foreplay, is necessary for the pill to be effective. Men are urged to avoid high-fat meals before taking Viagra, because fats inhibit absorption of the medication. Viagra is available in three doses: 25 milligrams, 50 milligrams, and 100 milligrams. The majority of patients find the 100-milligram tablet to be the most effective.

Viagra is believed to work in up to 80 percent of patients. The success rate varies with the cause of the dysfunction. However, there are side effects. Ten percent of the men who take sildenafil report that their faces remain flushed for several hours after sex. Some 17 percent complain of headaches. Still others say they are bothered by an upset stomach or have difficulties seeing. On rare occasions, men who have taken sildenafil, have had prolonged, painful erections that may last more than three hours.

Men with angina or active coronary artery disease should not take Viagra unless under a doctor's supervision. Viagra should not be used if you are taking nitroglycerin. When used together, viagra and nitroglycerin containing medications have cause heart attacks and death.

Men with congestive heart failure or high blood pressure should use Viagra with caution, particularly if they are taking several medications to control blood pressure. Doctors may suggest lower doses for men who are taking protease inhibitors for AIDS. Men who are taking certain other medications -- cimetidine for

acid stomach, or erythromycin, which is an antibiotic -- may take Viagra, but lower doses are recommended.

Because of the drug's extraordinary popularity, some companies have begun to sell Viagra over the Internet, even to men who do not have a prescription and have not sought the advice of a doctor. Taking Viagra without having been examined by a doctor is dangerous because of the potential for serious side effects.

Intraurethral Therapy

Intraurethral alprostadil, or MUSE, is a small suppository composed of prostaglandin E1, a chemical that increases blood flow. After urinating, the man inserts the tiny tablet into the penis using an applicator. Gentle rubbing of the penis causes the suppository to dissolve. The medication is absorbed through the lining of the urethra and causes relaxation of the blood vessels and muscles, which leads to increased flow of blood into the penis. The suppository is available in four different strengths: 125 micrograms, 250 micrograms, 500 micrograms and 1000 micrograms. Doctors have found MUSE to be effective in about 40 percent of men with E.D. The most common side effect is pain in the penis, urethra, scrotum or around the genitals. It affects up to half of all patients. Urethral bleeding is uncommon; it happens if the urethra is irritated when the suppository is inserted. A very small number of patients have problems with low blood pressure, fainting and dizziness. Sometimes female sex partners complain of vaginal irritation, or vaginitis. MUSE should not be used if the female partner is pregnant. Men who are allergic to prostaglandins, or who have leukemia or sickle-cell disease should not use MUSE.

Injection Therapy

With injection therapy, the patient injects a drug into the side of the penis near the base, which is composed of spongy tissue and fills with blood during an erection. The most commonly used drugs are alprostadil and (prostaglandin E1), which are sold under the brand names Caverjet or Edex. The injection is made with a very small needle, similar in size to the needles diabetics use to inject insulin. Within 15 minutes of the injection, the man will have an erection that will last for about half an hour. After watching an instructional video, men who choose injection therapy will be taught how to manage the injections by a nurse in their physician's office. Injection therapy is typically covered by medical insurance. The drug costs between \$20 and \$25 a bottle, depending on the dosage. Some 73 percent of men who try injection therapy report success, according to research.

As for side effects, some men complain of pain or discomfort after the injection. Others will have some scarring or bruising at the injection site. Less common side effects include high blood pressure, headache and dizziness. Some men should not have E.D. treated with injection therapy. Doctors will not prescribe this kind of treatment for men who are taking monamine oxidase inhibitors, or MAOs, which is a type of psychiatric medication. Neither should those who have had

episodes of priapism, or erections that last for hours. Men who have other serious conditions, such as sickle-cell disease or leukemia, should not attempt injection therapy -- nor should those with prostaglandin allergies. Physicians will tell patients who are taking blood thinners, such as aspirin, that they are at increased risk for bleeding and bruising.

The Vacuum Device

Invented in the 1900s and FDA approved in 1982, the vacuum device is a relatively simple machine composed of three parts. First is a cylinder that is placed over the penis. Attached to that is a pump, which may be battery powered or hand-operated; the pump creates suction which pulls blood into the penis. Finally, there is a band or ring that constricts the base of the penis and holds the blood in the penis. After intercourse, the ring is removed and the blood drains out of the penis. Eighty percent of the men who use the vacuum device say they are satisfied. The device fits in a carrying case about the size of a toiletry kit, but it is still more cumbersome than other forms of therapy. Depending on the model, vacuum devices cost roughly \$400, which is often covered by insurance. Many men chose this type of therapy because it is less invasive than injections or pills, and it is a one-time financial expenditure.

Complications related to the vacuum device include bruising of the skin and urethral irritation leading to blood in the ejaculate or urine. If the band is left on for a prolonged period, the patient may suffer ischemia, or a lack of blood flow to the penis, which may make it difficult to obtain erections in the future and could cause serious damage to the penis. Again, this device is not suggested for those patients at risk for prolonged erections, such as patients with sickle-cell disease and leukemia. It should not be used by men taking blood thinners such as warfarin, which is also known by the brand name Coumadin.

Penile Prosthesis

Some men may choose to have the the surgical insertion of penile prothetic implants . A penile prosthesis is an artificial device that does not lengthen the penis, however it provides rigidity so that a man may resume satisfactory sexual intercourse. Typically, these devices cost between \$3,500 and \$10,000. When including the physician's fee and the hospital charges for the surgery to implant the device, the total cost amounts to approximately \$15,000.

There are several different types of devices available, from the simple semirigid prosthesis and the more complex inflatable prostheses. The semirigid prosthesis does not change in size. Silicone-covered rods implanted in the penis maintain penile rigidity all the time. An erection is produced by bending the penis upward. As for the inflatable prostheses, a small pump, usually located within the scrotum, allows for fluid to move from a reservoir into the prosthesis, providing an erection. When intercourse is completed, the prosthesis is deflated by pressing a release valve, allowing the penis to become flaccid. These devices malfunction only rarely, and men who have used them say they are pleased with them. Placement of a penile prosthesis requires surgery. According to studies, more

than 80 percent of patients who have had a penile prosthesis are satisfied. Risks of penile prosthesis placement include surgical complications, injury to the urethra, infection of the penis and malfunction of the prosthesis.

Alternative Therapies

Men who suffer from erectile problems may be curious about the herbal remedies and other devices touted on cable television and in other media as “cures” for E.D. For the most part, these remedies and devices have not undergone the extensive safety and effectiveness testing required of treatments approved by the Food and Drug Administration. Typically, claims of effectiveness are not based on accepted scientific research methods. You should consult your doctor before investing in such products.