

# Erectile Dysfunction

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## What is it?

Erectile dysfunction (ED), also known as impotence, is the inability of a man to sustain an erection sufficient for satisfactory sexual intercourse. It is a subcategory of male sexual dysfunction which also includes ejaculatory problems and problems with sexual arousal, all of which can potentially be treated by urologists.

## Who is affected?

Erectile dysfunction is exceedingly common in our society. It is estimated to affect nearly 30 million men in the United States. The incidence of ED increases with age. Over half of men between the ages of 40-70 experience some degree of erectile dysfunction. ED is especially common in patients with high blood pressure, high cholesterol, diabetes, and heart disease. Despite this prevalence, very few men with erectile problems ultimately seek medical attention.

## What are the causes?

The process of penile erection is complex and therefore problems can occur for many reasons. In fact, there are often multiple causes for erectile dysfunction. The cause may be physical, psychological, or a combination of both.

The most common physical causes of ED are problems with the blood vessels to the penis. Atherosclerosis, also known as "hardening of the arteries", can occur with aging and accounts for over half of the cases of ED in men over 60. Erectile problems commonly occur with other diseases of the blood vessels such as heart disease and peripheral vascular disease. Smoking can also damage blood vessels and contribute to ED.

Damage to the nerves of the penis can also lead to ED. Most commonly, this is caused by diabetes which can impair the nerve function necessary for erection. Several neurologic conditions such as stroke, spinal cord injuries, multiple sclerosis, and Parkinson's disease can also impair the nerves responsible for erectile function.

The nerves and blood vessels to the penis can also be directly damaged in the case of trauma or, more commonly, as a side effect of treatment for cancer of the prostate, bladder, colon or rectum. The nerves and blood vessels responsible for erection are closely associated with these organs and are susceptible to damage with either radiation or surgical therapy. Contemporary surgical techniques and methods of applying radiation are utilized in order to minimize the collateral damage to these structures in an effort to preserve erectile function.

A variety of commonly prescribed medicines are also known to cause or contribute to erectile dysfunction. These include medicines for high blood pressure, heart disease,

antidepressants and sedatives.

Psychological conditions that can contribute to erectile dysfunction include depression, stress, and anxiety. If a man experiences loss of erection or inability to perform sexually, the anxiety that this may happen again can worsen their erectile function. The cyclical nature of this can lead to chronic problems during sex and can lead to impotence. This cycle can be broken by identifying and treating the physical causes of the ED.

### **How is erectile dysfunction treated?**

There are a variety of treatments we can offer to help a man with erectile problems. The first line of treatment often involves the use of oral medications that facilitate the process of penile erection. These medications are generally safe and can successfully treat most men with erectile dysfunction. In the event that oral medications are ineffective, intra-urethral suppositories and injection therapy are also available by prescription. The suppositories are administered through the tip of the urethra, the tube through the penis by which urination occurs. We can also teach patients to self-administer injection therapy to directly deliver medications that can facilitate an erection.

If these medical treatments are unsuccessful, penile prosthesis implantation provides an excellent method of regaining sexual function. There are a variety of implant devices on the market which all function by directly providing penile rigidity. The most simple devices involve implanting malleable rods into the penis that provide rigidity for intercourse and can be flexed downward for concealment. Inflatable penile prosthesis, on the other hand, provides a more natural erect and flaccid (non-erect) state. They involve a pump placed in the scrotum that can transfer fluid from a reservoir into cylinders in the penis resulting in penile rigidity. The device can subsequently be deactivated, automatically transferring the fluid back into the reservoir and returning the penis to a flaccid state. The entire device is completely concealed within the body.

Although erectile dysfunction may be viewed as a personal or embarrassing problem, it is important to seek treatment. In the vast majority of cases, erectile dysfunction has a physical cause and can be successfully treated.