

Erectile Dysfunction: Treatment with Medical and Surgical Options

Urology Care
FOUNDATION™
*The Official Foundation of the
American Urological Association*

WHAT IS ERECTILE DYSFUNCTION (ED)?

ED, or erectile dysfunction, is when a man finds it hard to get or keep an erection that's firm enough for sex. It affects about one (1) in two (2) men over the age of 50. In some men, it's a problem that needs treatment.

WHAT CAUSES ED?

ED happens when blood doesn't flow well to the penis, or when the nerves in the penis are harmed. ED can signal an underlying health or emotional problem. Finding and treating the cause(s) of your ED can improve your overall health and your sex life.

ED can be from an injury, surgery, heart disease, peripheral arterial disease or high blood pressure. It can be due to high blood sugar, alcohol and drugs or smoking. Some medicines may cause ED. Emotional stress (depression, anxiety or relationship problems) can also lead to or worsen ED.

HOW IS ED TREATED?

Your healthcare provider will want to evaluate your physical and emotional health before choosing treatment. You may be asked to change your lifestyle habits or the medicines you use. For example, you may be asked to lose weight or exercise more. You may be asked to stop smoking, vaping or using drugs or alcohol. You may be offered a different type or dose of a medicine you are already taking. Never make changes to medicines without first talking to your provider.

At the same time, your provider will want you to address any

emotional problems. These could stem from relationships, stress, depression or anxiety from past problems with ED (performance anxiety). Your healthcare provider may offer a referral to counseling for a more serious mental health concern.

After lifestyle changes, there are a range of treatment options that may help ED.

WHAT MEDICAL TREATMENTS ARE USED FOR ED?

- **Vacuum Erection Devices** pull blood into the penis to produce an erection. This is a pump you use on your penis. The pump uses an elastic ring to trap blood in the penis long enough for an erection.
- **PDE-5 Inhibitors** are oral drugs (given in pill form) that can relax muscles in the penis and increase blood flow. Avanafil, Sildenafil, Tadalafil and Vardenafil are types of oral pills that treat ED in men. Men who do not have ED should not use these drugs, nor should women or children.
- **Testosterone Therapy** for men with low blood levels of testosterone help increase libido (sexual desire).
- **Intracavernosal (ICI) or Intraurethral (IU) Therapy** involve medicines you deliver directly to the penis to improve blood flow to the penis for an erection. The drug Alprostadil is given either through a penile injection (ICI) or a medicated pellet (IU). It is either self-injected into the side of the penis, or a tiny pellet of the drug is inserted into the tip of the penis to dissolve in the urethra (the tube that carries urine out). If Alprostadil alone doesn't work or if it causes pain, different medications (such as

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“Trimix”) are tried. This is a combination drug, given by prescription and mixed by a pharmacist. The first dose of Alprostadil or Trimix should be given in the office by an expert provider (ideally a urologist). Patients are taught how to inject Alprostadil or Trimix and how to safely titrate (increase the dose) at home.

- **Dietary Supplements** (“herbal remedies”) for ED are popular, but may not be safe or even work. Check with your healthcare provider before you take any to self-treat ED. The FDA has warned consumers not to use unapproved drugs for ED. Supplements may include the PDE5 inhibitors, but they may also have unclear ingredients or overly high amounts of PDE5 inhibitors, <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm465024.htm>.

Some medical treatments can cause priapism. Priapism is an erection that lasts longer than four hours. It is painful and damages penile tissues. Deep tissue penile damage (fibrosis) will worsen ED or cause complete ED. Patients with priapism should go to an Emergency Room for treatment. To stop this problem, blood trapped in the penis must be removed. A drug to reverse the medicine is also used. Men must be carefully watched during this process, and may need surgery.

ARE THERE SURGERIES TO TREAT ED?

Your healthcare provider may offer surgery as a treatment choice. Young men who’ve had injuries to the pelvis or penis may be helped by surgery to repair blood vessels. Older men who’ve had surgery or radiation for cancer of the prostate, bladder, colon or rectum may benefit from a penile prosthesis.

Penile prostheses are devices placed inside the penis to create firm erections. There are two types:

- **Semi-Rigid Implant (Bendable).** This is made from two easy-to-bend rods made of silicone and metal. These rods make the penis firm for sex. The implant can be bent down for urination or up for sex.
- **Inflatable Implant.** This is a set of fluid-filled cylinders placed in the penis shaft. Tubing joins these cylinders to a pump placed in the scrotum (between the testicles). The pump inflates the penis and makes it stiff and natural feeling for your partner. Men can control firmness and, sometimes, the size of the erection.

With an implant, there should be little or no change to a man’s penile sensation and orgasm. Penile implants may restore erections for cancer survivors, but they can’t repair damage to sensation, orgasm or ejaculation after cancer.

The risks of implant surgery are bleeding, infection, tenderness and pain while healing. There is a long-term risk of device failure, which will require another surgery for replacement. Many men find it helps to talk with someone who’s had implant surgery before going forward with it.

DO TREATMENTS WORK?

The good news for many men is that ED is often managed safely, and with success. If you have ED, talk with your healthcare provider about options. Be sure to ask questions about side effects, underlying health problems, or other concerns before you begin treatment.

About the Urology Care Foundation

The Urology Care Foundation is the world’s leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more, visit the Urology Care Foundation’s website, UrologyHealth.org/UrologicConditions or go to UrologyHealth.org/FindAUrologist to find a doctor near you.

Disclaimer:

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologists or healthcare provider about your health concerns. Always consult a healthcare provider before you start or stop any treatments, including medications.

For copies of printed materials about ED and other urologic conditions, visit UrologyHealth.org/Order or call 800-828-7866.