

Penile Prostheses for the Treatment for Erectile Dysfunction

Introduction

There are several first-line therapy for erectile dysfunction (ED) including prescription pills for erection. While effective for many men, these pills do not work reliably in everyone and should not be taken by men with certain medical conditions or on certain medications, such as nitrates. Other therapies include penile vacuum constriction devices, administration of urethral suppositories or injection of medications directly into the penis to provide erections. These treatments are not acceptable or do not work for everyone. Such men may choose alternative forms of sexual expression with their partner or forgo sexual intercourse altogether. Third-line therapy is surgical implantation of a penile prosthesis.

What is a penile prosthesis?

A penile prosthesis is a device placed inside the erectile bodies of the penis designed to create rigidity sufficient for penetration and completion of intercourse. Currently, two types of penile implants are available: malleable and multicomponent inflatable.

Is penile prosthesis placement safe?

Penile implantation is a safe procedure often performed as outpatient surgery, typically through a tiny scrotal incision. Spinal or general anesthesia is administered with slight risks of anesthetic complications. Prostheses themselves are remarkably complication-free, however one serious complication is infection requiring device removal. Most modern implants are covered with infection retardant coatings that have made surgical infection rare, occurring in less than 1% of cases from experienced surgeons.

Will people know that I have a penile prosthesis?

A penile prosthesis is completely internal; no parts are visible from the outside. A multi-component inflatable prosthesis is very natural in appearance in both flaccidity and erection. With malleable models, the penis is always partially erect so this type of prosthesis may not be quite as easy to conceal.

Will a penile prosthesis give me more sexual desire or affect my ejaculation?

The prosthesis has no role in sex desire or the ability to have a climax. Most individuals who are suffering from ED are able to ejaculate and/or have an orgasm with a flaccid penis. When patients regain the ability for a dependable erection, many experience a rapid return of sexual desire.

Will penile implants make my penis bigger?

Penile implants are not designed to make the penis bigger but rather to make it rigid and firm for sex. While the penis may seem

Malleable Implants

These implants are silicone rods containing a device that allows the implant to be bent to the desired angle. The latest models have a "string of pearls" configuration within the silicone rod that diminishes spring back, which was a disadvantage of the older braided wire models. These devices are implanted through tiny incisions at the end of the penis or through a small scrotal incision.

Pros: Technically easy to implant, least expensive, very low rate of mechanical complication.

Cons: Flaccidity and rigidity are compromised; patients may need to reposition the penis when changing position such as from sitting to standing and vice versa, risk of erosion through skin in men with decreased skin sensitivity.

Inflatable Implants

Inflatable prostheses rely on the flow of sterile saline into the cylinders placed in the penis for creation of a rigid penile erection. Inflatable penile implants are the most successful imitation of a natural erection that currently exist. With these devices, the penis can be kept in a flaccid (soft) state and made rigid for sexual intercourse for as long as is desired. Inflatable models currently outsell malleable models in the United States by ten-to-one, although malleable devices are more commonly utilized in some other countries.

Patient satisfaction with inflatable implants is the highest of any available ED treatment. Ninety-five percent of patients report they are "very satisfied" after 1 year of use. There are two types of inflatable prostheses, classified as two- and three-piece models.

Two-piece inflatable prostheses

Two-piece models store all of the fluid within the cylinders placed inside the erectile bodies. By squeezing a pump located beneath the scrotal skin, 2 or 3 cc of fluid moves through the prosthesis, increasing rigidity.

Pros: Easier to deflate compared with three-piece models, fewer working parts theoretically decreases odds of mechanical failure.

shorter this is due in some cases to the fact that the head of the penis does not expand with the implant. Most men who get penile implants and their partners are happy with the reliability of the device and their restored ability to have a firm erection: any perception of length loss doesn't bother them.

Can I go back to natural erections after having a penile implant?

No—the surgery to place an implant permanently alters the normal anatomy of the penis, making “natural” erections impossible. For this reason, prostheses should be considered primarily for men who cannot achieve erections through any other means.

How should I decide if a penile prosthesis is right for me?

The decision to undergo surgery should follow careful consideration, understanding the inherent risks and realistically managing one's expectations. A man in a relationship should strongly consider discussing penile prosthesis placement with his partner. When a man undergoes prosthesis placement he goes from being non-sexual to being able to have an erection indefinitely, which may be threatening to his sexual partner. Most couples report renewed satisfaction with their sexual relationship, often wishing they had “done it sooner.” Talking with implant patients can help allay fears and increase understanding of how this procedure can bring about a return to sexual satisfaction.

Who should I see about getting a penile prosthesis?

The most important criterion in choosing a surgeon is experience. While the surgery is minimally invasive, a surgeon who specializes in prosthetic surgery is a better choice than one who performs the implant operation infrequently.

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Cons: Less rigidity during erection, less natural flaccid (soft) appearance of the penis.

Three-piece inflatable prostheses

There is no question that the “gold standard” of penile implants is the three-piece inflatable. These devices are composed of two cylinders in the penis, a tiny pump in the scrotum and a fluid-filled reservoir placed behind the pubic bone. The entire device is generally implanted through a 1-inch incision in the scrotum or a tiny abdominal incision directly above the penis. The hydraulic system is filled with 2 or 3 ounces of physiologic sterile saline. When an erection is desired, the patient squeezes the pump implanted within his scrotum, which diverts saline from the reservoir into the penile cylinders. When the patient and his partner have achieved satisfaction, a release valve is pressed on the pump and fluid is transferred back into the reservoir. The prosthesis is undetectable to the eye when the penis is soft and often cannot be felt through the penile skin.

Pros: Most natural appearance in both the flaccid and erect state, excellent long-term durability and reliability, ability to control firmness of erection to suit patient/partner needs, often covered by insurance in the United States.

Cons: Require manual dexterity to operate, expensive if paid for out of pocket, appearance of penile length loss, risk of mechanical failure, and subsequent need for replacement.