

Surgery for Erectile Dysfunction

PENILE PROSTHESES

Implantation of a penile prosthesis is one of several options available for the treatment of impotence. The penis consists of three hollow tubes running along the length of the shaft. One of these, the urethra, runs along the bottom of the penis and brings urine from the bladder out through the end of the penis. The other two matched tubes running side by side on the top of the penis are constructed much like an automobile tire with an outer tube and an inner tube. The erection is created by the two inner tubes filling and pushing against the outer tubes much like a tire that is inflated with air.

One of the treatment options for erectile dysfunction is the placement of prosthetic inner tubes within the penis to mimic the inflation process and create an erection. Penile implants were first used in the 1950s, and as time went on further advances occurred. Different types of prostheses were developed and hundreds of thousands of men throughout the world have been successfully treated with a penile implant. Today there are various types of penile prostheses. These include the semirigid implant (which remain permanently rigid) and inflatable implants (which are inflated and deflated using a separate pump contained within the scrotum). These various types and their advantages and disadvantages can be discussed with your urologist.

□ ADVANTAGES OF IMPLANTS

Implants are effective in treating impotence due to almost every cause. There is a 90%+ success rate when both partners are informed of the nature and limitations of the prosthesis. Prostheses require no further treatment after implantation, and there is no external equipment which might have negative connotations to the partner. No medicines or injections are needed and once the prosthesis is placed and functioning, there are no further costs. The newer prostheses are very reliable and the chance of mechanical failure is very low, in the range of 2-4% per year.

□ DISADVANTAGE OF IMPLANTS

Once an implant has been placed, natural erections usually no longer occur. If the prostheses were then removed the normal erections are unlikely to return. There is a small chance of infection which would require removal of the prosthesis. Some patients can develop surgical complications or anesthetic complications. Occasionally patients will notice numbness at the head of their penis and intercourse can be uncomfortable. Because the erection is not caused by increased blood flow to the penis, the head of the penis is not part of the erection, and this softness may be bothersome to some patients.

Recently the safety of silicone and silicone products such as silastic have been questioned. Breast prostheses using liquid or gel forms of silicone were

removed from the market by the FDA. Concerns raised were the inflammatory responses to this type of silicone which included pain, scarring and disfigurement. In addition, possible associations were raised between silicone and the development of immune disorders like rheumatoid arthritis and a possible association to an increased development of cancer. It is noteworthy that the solid silicone breast implants that are filled with water were not removed from usage. In May, 1994, a class action suit was filed against the major manufacturer of penile prostheses claiming many of these same issues. The penile prostheses are all of the solid variety and use water as a filling. Most observers feel the suit to be without basis, but of course, only time will tell and more research and follow-up needs to be done. Solid silicone products are used extensively in medicine and include cardiac pacemakers and brain shunts. Thousands and thousands of implants of all types have been used for years with very little and predictable risks and side effects.

VASCULAR RECONSTRUCTIVE SURGERY

A small percentage of patients may be candidates for some form of reconstruction of the penile blood flow. This includes patients with poor arterial blood supply and those also with venous leaking. The long-term results from this type of surgery have been generally disappointing with even the best of results showing only 1 out of 20 men being helped. Surgery is technically difficult, relatively expensive, and includes complications of nerve damage and scar tissue formation. Given the relatively low success rate, along with the technical difficulty and expense of this type of procedure, vascular reconstructive surgery has not been generally accepted widely.