

# **ERECTILE DYSFUNCTION**

Impotence is simply described as the inability to achieve or maintain an erection suitable for sexual intercourse. A study looking at men 40 to 70 years of age found that 17% of men had minimal , 25% moderate and 10% complete impotence. It affected 39% of men 40 years of age and 67% of men 70 years of age.

An erection is created when the penis fills with blood much like a tyre fills with air. The blood is pumped into the penis and not allowed out, and the more blood that is pumped in, the firmer the erection. The reasons for lack of erections are either the lack of appropriate filling of the penis or inappropriate emptying. Because the nervous system controls the arteries and veins, psychological problems can cause emptying of the penis at unwanted times. At one time it was felt that psychological causes were the most important, but we have come to realise that they are actually significant only in a minority ( 70% of cases in men under 35 years of age , and only 10% of cases in men over 50 years of age ). The major causes of impotence today are diabetes, atherosclerosis or hardening of the arteries, and impotence following radical pelvic surgery. Other causes include spinal cord injuries, hormonal problems, and multiple sclerosis. The abuse of drugs, alcoholism and smoking can interfere with normal erections, and well over 200 different prescription medications can cause impotence as a side effect.

## **DIAGNOSIS**

A complete history and physical along with some psychological screening and an evaluation of the hormone levels are most important. Other tests may include an evaluation of erections while sleeping. We know that a healthy male might have four to five erections during a night of restful sleep. This is something that cannot be suppressed by psychological means, and measuring these erections can be helpful in determining the nature of the cause of impotence. Other studies include evaluation of nerve function, blood flow measurements to the penis, ultrasound of the penis and x-rays of the arteries and veins of the penis. Many of these additional tests are invasive and expensive. While the results are often enlightening, they rarely change the options for treatment.

## **PSYCHOLOGICAL TREATMENT**

Medical treatments for impotence include counselling when a psychological problem is discovered. Working with couples and reducing tension, improving communications, and trying to obtain realistic expectations are areas where counselling can help. In some patients where psychological causes are not the originating problem, but have become a significant factor, it may be necessary to have counselling to go through the difficult rehabilitation period.

## **HORMONE THERAPY**

Hormone treatments, namely testosterone, can be used in men whose production of male hormones is low. Testosterone injections do not really help men from the sexual viewpoint unless they have low levels, and these can be measured by the urologist at the initial evaluation. Testosterone injections are not without their problems, however, as the use of the drug can stimulate the growth of prostate tissue. Testosterone cannot be used in patients with known or suspected prostate cancer as the cancer could grow more rapidly. Other less common side effects of testosterone use include liver injury and increased blood pressure. Men who take testosterone regularly usually stop sperm production, and permanent infertility could result if testosterone is used long enough.

## **SILDENAFIL (VIAGRA)**

This drug has recently been released improves the quality of erections in many men. Taken as a tablet it assists with erections after 30-60 minutes. Its effect is to improve the blood flow to the penis. Whilst it is extremely safe it should not be used by all patients with heart disease particularly angina. As a result it requires a prescription from a doctor. It can be given in doses ranging from 25 to 100 mg and can have side effects ranging from headaches, flushing, indigestion and visual changes. These are self-limiting and wear off with time.

## **SELF-INJECTION THERAPY**

What is self-injection therapy? This involves the patient or his partner giving an injection of medication directly into the side of the penis to create an erection. The erection created is a natural one and usually begins 5 to 15 minutes after the injection. Not all patients respond to this type of treatment, but those that do should develop an erection that lasts anywhere from 30 to 120 minutes. About 70% of men find that their erections are satisfactory with self- injection therapy. The injections are given with a tiny needle and use very small amounts of medicine. The injections are relatively painless and are easily taught to the patient in one or two visits with the doctor.

The drugs used today include: prostaglandin (PGE-1 or Alprostadil or Caverject), Papaverine hydrochloride and Phentolamine (Regitine).

### **□ RISKS**

All medications have some potential risks and side effects and risks do exist with all of these drugs and the injections. These may include the possibility of bleeding or bruising from the injection, and the small chance of infection. One of the more common risks include the development of a prolonged erection or priapism (more than four hours). An episode of priapism might require a trip back to the physician or to the emergency room to receive other medications

to counteract the self- injection medications and relieve the prolonged erection. Priapism happens in only a few percent of the patients. The patient does need to be aware that any erection lasting more than four hours needs to be dealt with by a physician. Another complication is the development of permanent scarring within the penis. The medications can be irritating to the penile tissues, and scarring is most often seen in patients who abuse the drug by using it too often. Scarring could create difficulty obtaining erections even with additional medication. If the scarring were severe, placement of a penile prosthesis, if that other option was chosen at a later time, might be difficult. Even rarer is the development of other medical problems. Papaverine has been known to cause changes in liver function tests which go away if the drug is stopped. Some men complain of dizziness, heart palpitations and/or a flushed feeling with these medications , as well as the more common problem of penile pain.

#### □ **DISADVANTAGES OF SELF INJECTION TREATMENT**

Self-injection treatment does require the patient or his partner to learn to give injections directly into the penis. The patient does need to return to the doctor for follow-up visits, particularly in the early phases of treatment. The patients cannot use the injections too often for fear of developing scarring and the self-injection treatment should be limited to once every four to seven days (range depends on medication type and initial response).

Not all patients are candidates for self- injection therapy. A percentage of patients will not develop good erections, and another set of patients might develop erections that do not go away, making them poor candidates for continued use of this drug.

#### □ **ADVANTAGES**

The major advantage of self-injection therapy is the fact that the erection created is similar to the body's own spontaneous erections. The erection lasts usually 30 to 120 minutes, which is adequate duration for successful and pleasing intercourse. Self- injection therapy does not impede the development of an orgasm or ejaculation. Self- injection therapy is less costly than surgical implantation. Self-injection therapy can be used by the patient at his own discretion and at anytime with a minimum amount of preparation. Treatment does not involve surgery and is minimally painful in most patients.

## **VACUUM DEVICES**

The vacuum erection device is a simple mechanical tool, which allows the man to develop an erection which is suitable for sexual intercourse.

## **WHY DO VACUUM ERECTION DEVICES WORK?**

Erections are created when blood is trapped in the penis much like air is trapped in an inflated tire. The more air that is placed into the tire, the firmer the tire becomes. Likewise, the more blood trapped temporarily in the penis, the firmer the erection. The vacuum erection device works by bringing more blood into the penis and then trapping it.

## **HOW THE VACUUM ERECTION DEVICE WORKS?**

The penis is inserted into a hollow plastic tube, which is pressed against the body creating a seal. A vacuum is then created in the tube by use of a small hand pump. This in turn draws blood into the penis causing engorgement, enlargement and rigidity. After one to three minutes of vacuum, an adequate erection is created and a soft rubber O-ring is then placed around the base of the penis in order to trap the blood and maintain the erection. The vacuum tube is removed and sexual intercourse is then possible. The rubber O-ring will maintain the erection until removed, and in most circumstances this can be left in place for 25 to 30 minutes.

## **WHO ARE THE BEST CANDIDATES FOR VACUUM ERECTION DEVICES?**

Vacuum erection devices work best in patients who are able to achieve a partial erection on their own. After having adequate foreplay, which creates a mild erection, the partner can be of help in applying and using the vacuum device. In any type of sex therapy, the partner's full acceptance of whatever technique used is always helpful.

### **□ ADVANTAGES**

One of the major advantages of vacuum erection devices is safety. There is no surgery, internal injections or significant side effects. The vacuum erection device will work for almost any type of erectile problem. The cost of the vacuum erection device is less than surgery or the continued use of self-injection treatments. The vacuum device can be used at the patient's convenience and at any time. Most of the major companies that manufacture vacuum erection devices provide a refund policy if the vacuum erection device is not successful. The vacuum erection devices range in cost from \$300 to \$500.

### **□ DISADVANTAGES**

One of the disadvantages of the vacuum erection device is the mechanical aspect of obtaining an adequate erection. This might have a negative influence on the patient and his partner. The device takes 5 to 10 minutes to set up, which technically interferes with foreplay. Some patient's body build makes it difficult to apply the vacuum erection device. Once the rubber O-ring is applied, there is no erection between the rubber band and the body, making the penis somewhat floppy.

The O-ring inhibits the normal flow or ejaculation after orgasm in some patients. This is not harmful and the semen will pass once the rubber band is removed. Some patients complain of a sense of coldness and/or numbness of the penis after the O-ring has been placed. The O-ring should be removed after 25 to 30 minutes because of restricted blood flow. The erection will soften when the O-ring is removed. Vacuum erection devices might be harmful to patients who have blood clotting problems or use blood thinners because of bleeding into the tissue.

## **SEX THERAPY INTRODUCTION**

Whether the cause of the difficulty with maintaining or achieving erections is purely psychological or secondary to another physiological cause, the end result creates a lack of confidence which results in a 'self-fulfilling prophecy'. The patient is so fearful of not obtaining an erection that the worry becomes so overwhelming that fears are born out -- no erection or loss of erection.

Sex therapists are trained professionals who deal with sex problems uniquely, and are very goal oriented to provide techniques, advice and counselling on dealing with the sexual problem only. They may provide reading and videos for help in their training. Usually only a few visits with provide definite improvement, and it is usual not to require more than a few months of treatments before seeing some definite results. Other causes of stress, obtaining adequate expectations from your partner and looking at relationships are also essential to effective sexual counselling.

### **SUMMARY**

Impotence is a treatable problem, and is not the inevitable consequence of aging. Almost all patients with impotence can be treated. A thorough evaluation looking for the causes of impotence can be followed by the appropriate diagnostic testing, and then a multitude of treatment choices become available to assure that each patient has a chance at a successful outcome.