

Patient information

Peyronie's Disease

Urology Department

Peyronie's Disease is a non-cancerous condition. A plaque of scar tissue forms in the shaft of the penis causing it to bend when the penis is erect. In most cases treatment is not required. In severe cases that interfere with intercourse surgery may be advised.

The normal penis

Three long columns of tissue (corpora) extend through the length of the penis. These are covered by a layer of thick elastic tissue, the tunica albuginea and a thin layer of skin. The central column expands at the tip into a mushroom-shaped structure (glans penis) and contains the urethra, which ends in a slit like opening.

During sexual arousal, blood fills spaces in the corpora, and blood vessels constrict to hold it there, enlarging and hardening the penis in an erection. The tunica albuginea supports the expanding erectile tissues and helps the penis to maintain its shape.

What happens in Peyronie's disease?

Many men have a slight curve in their penis, so if you've always been this way, it's probably normal for you. In Peyronie's disease, scar tissue forms in part of the elastic tissue surrounding the corpora.

When the penis becomes erect, the place where the scar tissue is can no longer expand and so the penis bends to the side where the scar is.

Imagine getting a long thin balloon and before it is blown up sticking some sticky tape down one side of it.

When you try and blow the balloon up the side with the tape will remain short and the side without will expand as normal. The balloon will bend to the side of the tape.

What causes Peyronie's disease?

Experts don't exactly know what causes Peyronie's Disease. Some experts speculate that the scarring may result from physical trauma such as sudden forceful bending during sex. Others suggest that an abnormality in some men's collagen, a protein that helps build tissue, may lead to the condition.

Peyronie's disease is more common in men with certain other conditions these include Dupuytren's contracture (a scarring condition of the palm of the hand), diabetes mellitus and high blood pressure.

Sometimes, people who have injuries to the penis such as surgical procedures or who perform self injections into the penis to achieve erections can develop conditions that are very similar to Peyronie's disease.

Who gets Peyronie's disease?

Peyronie's disease typically occurs in middle-aged men but can occur in teenagers and elderly men. The average age of a Peyronie's disease patient is 50 years of age. While it can occur in any man, it is most commonly seen in Caucasian men of northern European heritage.

How does Peyronie's disease present?

Peyronie's disease presents in a number of ways. Penile deformity is the commonest presentation.

The commonest deformity is penile curvature. The plaque causes restricted expansion and during penile erection bends the penis towards the side of the plaque. The larger the plaque, the greater the degree of curvature.

The most common direction for curvature is upwards (medically termed "dorsal"), however, curves in downward (medically termed "ventral") and lateral (left or right) directions are also well recognized. The greater the degree of curvature, the more likely it is to interfere with the ability of the patient to have sexual intercourse (penetrate).

Sometimes the plaque is small enough that it does not cause curvature but rather an indentation. The size of the scar dictates the size/depth of the indentation. When scars are circumferential (all the way around the penile shaft) or occur on opposite sides of the penis, the deformity is termed an "hour-glass deformity", where the indentations are symmetrical. Indentations and hour-glass deformity while less likely to interfere with a man's ability to penetrate, can lead to instability of the penis, where the penis buckles during an attempt at penetration.

Another symptom is penile pain. Most men with Peyronie's disease complain of some degree of pain. Nearly everyone who experiences pain has complete resolution of the pain within the first year of the condition.

Early on in the condition, pain is usually the result of the inflammation. It can be helped by use of medications such as aspirin, ibuprofen etc. (termed "non-steroidal anti-inflammatory drugs"). Later on when the scar is formed, the pain is usually experienced only during penile erection, and is believed to be the result of stretching of the scar during erection. The duration a Peyronie's disease sufferer experiences pain is variable.

Peyronie's disease is sometimes associated with erectile dysfunction (also known as ED or "impotence"). This is most commonly seen in Peyronie's disease patients that are older. Peyronie's disease rarely causes ED, most of the erection problems are related to other factors (predominantly vascular diseases, such as, high blood pressure, high cholesterol levels or diabetes) and not the Peyronie's disease itself.

Other complaints of Peyronie's disease patients are the ability to feel the scar (often called a nodule by the patients), pain complained of by the partner during sexual intercourse because of penile curvature and penile shortening. Shortening of the penis is complained of in some men and this is noticeable in both the flaccid and erect state.

How is Peyronie's disease diagnosed?

Doctors can usually diagnose Peyronie's disease based on a physical examination. The plaque is visible and palpable whether the penis is flaccid or erect.

Full evaluation, however, may require examination during erection to determine the severity of the curvature. The erection may be induced by injecting medicine into the penis or through self-stimulation. Some patients may eliminate the need to induce an erection in the clinic by taking a digital or Polaroid picture in the home.

How is Peyronie's disease likely to progress?

In general the disease progresses in three or four phases:

- sudden onset of pain or deformity (bend)
- progression, the pain may remain constant or improve and the deformity may get worse
- stabilisation, the pain settles down and the deformity stops getting any worse
- resolution, in some patients the deformity gradually improves and the penis becomes straight again.

When a patient presents with active disease, the chance of spontaneous improvement (resolution) is approximately 20%, stabilization is 40% and further progression is 40%.

What treatments are available in Peyronie's disease?

Treatment of Peyronie's disease is somewhat controversial.

It depends on:

- where you are in the disease progression
- the severity of the penile deformity (bend)
- whether there are any problems with the erection.

Because the course of Peyronie's disease is different in each patient and because some patients experience improvement without treatment, medical experts suggest waiting one to two years, or longer before attempting to correct it surgically. During that wait, patients often are willing to undergo treatments whose effectiveness has not been proven.

Possible treatments

There have been many different treatments tried in Peyronie's disease. These include tablets, injections and shock wave treatment. Many of these treatments have significant possible side effects.

Currently the most promising treatments seem to be:

Vitamin E: Researchers have given vitamin E orally to men with Peyronie's disease in small-scale studies and have reported improvements. Yet, no controlled studies have established the effectiveness of vitamin E therapy.

Vacuum therapy: in which a pump is placed over the penis and used to pull the erection full and the penis straight has been shown to improve penile length, angle of curvature and pain after 12 weeks of regular use.

Penile Traction: The use of the Andropenis penile extender which applies traction to the penis and must be applied to the penis for four to ten hours a day has been shown to improve length and bend in some patients.

PDE5 inhibitors: There is some experimental and theoretical evidence to suggest the regular use of drugs called phosphodiesterase inhibitors (Cialis, Viagra and Levitra) usually used in erection problems may be beneficial in preserving erection function and improving or stabilising the bend.

Surgical treatments

Surgical treatments can be considered in men that are experiencing significant problems with the bend in the penis.

There are three surgical options:

- **Nesbitt's procedure (penile placcation)** - In this type of procedure the surgeon shortens the penis on the side opposite the plaque. When the penis becomes erect the tissues then expand equally and the bend disappears.
- **Looe procedure (grafting type procedure)** - In this type of procedure, the plaque is cut out and some tissue, often part of the vein from the leg, is put in its place.
- **Penile implants** - If the disease is severe or there are also problems with erectile function, the surgeon may insert a prosthesis into the penis to straighten it. The prosthesis may be a semi-rigid rubber or silicone rod placed inside the shaft of the penis, or it may consist of two inflatable tubes implanted on either side of the penis that can be filled with fluid via a small pump implanted in the scrotum.

No form of surgery will restore the penis back to how it was originally. All risk shortening, erectile problems, and loss of sensation. This is why surgery is limited to patients who are unable to have intercourse due to the bend.

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Further information

For general queries telephone the Urology Centre on

Tel: 0151 282 6799/6789

Text phone number: 18001 0151 282 6799/6789

For clinical questions specific to your case, telephone the secretary of your Urology Consultant.

<http://www.baus.org.uk/>

Author: Urology Department

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