Peyronie’s disease: Frequently asked questions

What is Peyronie’s disease?

The disease is characterised by a plaque, or hard lump, that forms in the erectile tissue of the penis. It begins as a localised inflammation and can then mature into a hardened scar.

There are two erectile cylinders which run the length of the penis. The inner membrane of each chamber is a sheath of elastic fibres. A connecting tissue, called a septum, runs between the two chambers and attaches at the top and bottom of the penis. If the penis is abnormally squeezed or flexed, the area where the septum attaches to the elastic fibres may overstretch, injuring the lining of the erectile chamber and rupturing small blood vessels. In older men, diminished elasticity, disease of the arteries and diabetes may further increase the chances of injury.

The damaged area may heal slowly but abnormally. In most patients, however, the injury heals within a year and the plaque does not advance beyond an initial inflammatory phase. In more persistent cases, the plaque undergoes scarring due to formation of tough, fibrous tissue and may even form calcium deposits.

While trauma might explain acute cases of Peyronie’s disease, it does not explain why most cases develop slowly and with no apparent traumatic event. Neither does it explain why some cases disappear quickly.

There is an association with high blood pressure, diabetes, raised cholesterol levels, ischaemic heart disease and arteriosclerosis as well as with certain drugs (beta blockers, anti-ulcer agents, antidepressants and antihistamines).
What problems does it cause?

Peyronie's disease usually occurs in a mild form that heals without treatment in six to 15 months. In severe cases, the hardened plaque reduces flexibility, causes pain and forces the penis to bend during erection.

The plaque itself is benign (non-cancerous). A plaque on the top of the shaft (most common) causes the penis to bend upward; a plaque on the underside causes it to bend downward. In some cases, the plaque develops on both top and bottom, leading to indentation and shortening of the penis. At times, pain, bending, and emotional distress prohibit sexual intercourse.

How common is it?

Peyronie's disease occurs in approximately 3% of men. Although the disease occurs mostly in middle aged men, younger and older men can acquire it. About 10 percent of people with Peyronie's disease develop fibrosis (hardened cells) in other elastic tissues of the body such as the hand or foot. A common example is a condition known as Dupuytren's contracture of the hand. 3% of men with Dupuytren’s contracture also have Peyronie's disease. In some cases, men who are related develop Peyronie's disease, which suggests that familial factors might make a man vulnerable to the disease.

When is medical treatment needed?

Men with Peyronie's disease usually seek medical attention because of painful erections or difficulty with intercourse. The goal of any treatment is to keep the Peyronie's patient sexually active. Providing education about the disease and its course is often all that is required. There is no strong evidence that any treatment other than surgery is effective. Experts usually recommend surgery only in long term cases where the disease has stabilised and where the deformity prevents intercourse. Because the plaque of Peyronie's disease often shrinks or disappears without treatment over a six to 15 month period, medical experts suggest waiting one to two years before attempting to correct it surgically. Spontaneous improvement in the disease is seen in 60 to 70% of patients. During the wait for improvement, however, patients are often willing to undergo treatments that have no scientifically proven effectiveness.

Some clinicians have given men with Peyronie's disease vitamin E tablets; as yet, no studies have ever established the effectiveness of vitamin E therapy. Similar inconclusive success has been attributed to para-aminobenzoate (Potaba®) tablets.
The only medical treatment proven to be effective is Tamoxifen, taken for six weeks, but this is only indicated in the early, painful stage of the disease; given at the right time, Tamoxifen can relieve the pain and limit any subsequent bending of the penis.

Injection treatment with agents such as dimethyl sulfoxide, steroids, and calcium channel blockers directly into the plaques is used by some doctors; none of these techniques has, however, produced convincing results.

Steroids have also been used but produce unwanted side effects such as destruction of healthy tissues.

The most logical injected agent to use is collagenase, an enzyme that attacks collagen, the major component of Peyronie's plaques; the effects of this, however, are disappointing and collagenase treatment is not available on the NHS.

More recently, the use of penile traction (with the Andropenis penile extender) for 4 to 10 hours each day over a period of 3 to 6 months has been used. There is some evidence that it may effectively break down the penile adhesions in Peyronie's disease.

**When is surgery indicated?**

Peyronie's disease has been treated with some success by surgery. The most common surgical methods are:

- **Shockwave treatment.**
  This uses a low energy version of the lithotripsy technique for kidney stones and has been used to disperse the plaque and reduce the deformity. Four to six treatment sessions are usually required, at monthly intervals, before any effect is noticed.

- **Removal or expansion of the plaque.**
  This is followed by placement of a patch of skin, artificial material or vein graft; this may result in partial loss of erectile function. Success rates of 75 to 96% are quoted for this procedure.

- **Removal or bunching (plication) of tissue.**
  This is performed on the side of the penis opposite the plaque, which cancels out the bending effect; this is known as Nesbit's procedure but does cause slight shortening of the penis in addition to the shortening which the disease itself may produce. Success rates of 88 to 94% are quoted for this procedure.

- **Implantation of penile prostheses**
  This is only performed when the plaque prevents the normal flow of blood to the tip of the penis, thereby, inhibiting a full erection. It is major surgery and is rarely indicated.
Other information

This leaflet contains guidelines and advice from professional bodies, together with information about the prescription of drugs.

Treatment of patients will be planned with the consultant responsible for care, taking into account those drugs which are or are not available at the local hospital and what is appropriate for optimum patient care.

Who can I contact for more help or information?

Oncology nurses

Uro-oncology nurse specialist
01223 586748

Bladder cancer nurse practitioner (haematuria, chemotherapy and BCG)
01223 274608

Prostate cancer nurse practitioner
01223 274608 or 216897 or bleep 154-548

Surgical care practitioner
01223 348590 or 256157 or bleep 154-351

Non-oncology nurses

Urology nurse practitioner (incontinence, urodynamics, catheter patients)
01223 274608 or 586748 or bleep 157-237

Urology nurse practitioner (stoma care)
01223 349800

Urology nurse practitioner (stone disease)
01223 349800 or bleep 152-879

Patient advice and liaison service (PALS)
Telephone: +44 (0)1223 216756
PatientLine: *801 (from patient bedside telephones only)
email: pals@addenbrookes.nhs.uk
Mail: PALS, Box No 53
Addenbrooke's Hospital
Hills Road, Cambridge, CB2 2QQ

Chaplaincy and multi faith community
Telephone: +44 (0)1223 217769
email: chaplaincy@addenbrookes.nhs.uk
Mail: The Chaplaincy, Box No 105
Addenbrooke's Hospital
Hills Road, Cambridge, CB2 2QQ
MINICOM System (‘type’ system for the hard of hearing)
Telephone: +44 (0)1223 217589

Access office (travel, parking and security information)
Telephone: +44 (0)1223 596060

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