



PEYRONIE'S DISEASE

Information about your penile condition from
The British Association of Urological Surgeons (BAUS)

You have been given this leaflet because you have been diagnosed with penile curvature due to Peyronie's disease. The aim of the leaflet is to provide you with detailed information about the condition.

We have consulted specialist surgeons during its preparation, so it represents best practice in UK urology. You should use it in addition to any advice already given to you.



<http://rb.gy/mb9hd>

To view this leaflet online, scan the QR code (above right) or type the short URL below it into your web browser.

KEY POINTS

- Peyronie's disease is a common condition of unknown cause which may result in pain, shortening and curvature of the penis that can make sexual activity difficult (or even impossible)
- Some cases are due to penile injury but, in most patients, there is no obvious trigger for the condition to develop
- After an early, sometimes painful stage during which the curvature may progress, the disease usually passes into a chronic, stable phase
- Surgery is often needed if the degree of curvature makes it uncomfortable, difficult or impossible to have sex
- Whilst no treatment can completely restore your penis to how it was before Peyronie's disease, there are effective options to help improve curvature, reduce discomfort and enhance function

What is Peyronie's disease?

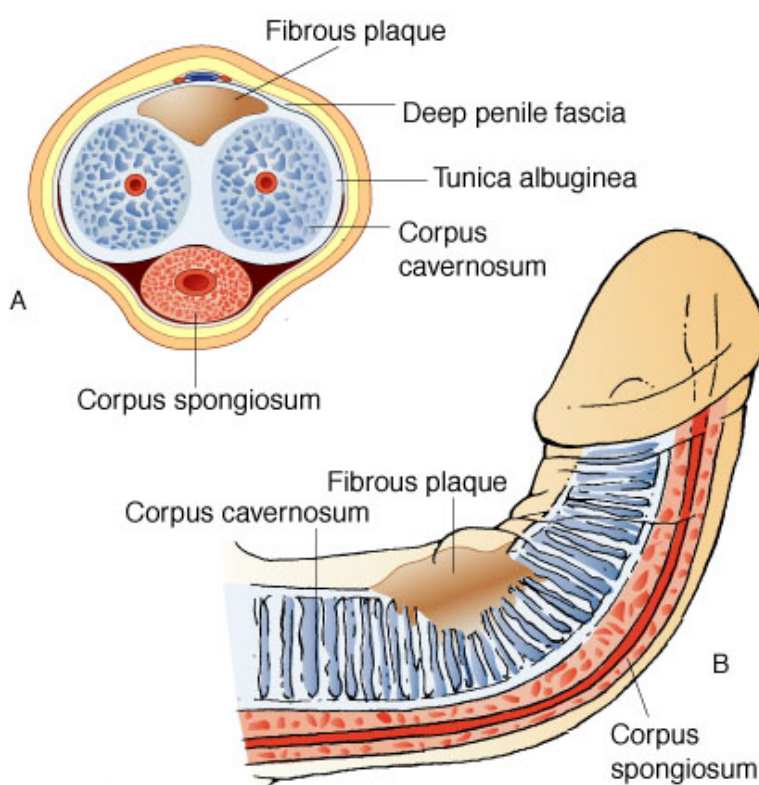
It affects approximately 1 in every 16 men (6%). But most urologists suspect that it is under-reported, and may affect as many as 1 in 10 men (10%). It can occur at any age, although it is seen mostly in middle-aged men.

It is characterised by a hard lump (plaque) in the erectile tissue of the penis which you can often feel yourself. This begins as a localised inflammation, which may then mature into a hardened scar. The scar is inelastic (stiff) and stops the penis stretching with erections, leading to the development of a curvature on erection.

It is not a condition you can “catch” from sexual activity, and you cannot pass it on. It is not a form of cancer, nor does it become malignant over time.

How does it develop?

There are two erectile cylinders (corpora cavernosa) running along the penis (pictured). The inner membrane of each cylinder is a sheath of elastic fibres. Connective tissue forms a septum between the two chambers. This attaches at the top and bottom of the penis. If the penis is abnormally squeezed or bent, the area where the septum attaches to the elastic fibres may over-stretch. This injures the lining and ruptures the small blood vessels. In older men, reduced elasticity, disease of the arteries and diabetes all increase the likelihood of scarring after an injury to the penis.



The damaged area may then heal slowly and abnormally. In most patients,

the injury heals within a year and the plaque does not advance beyond its early inflammatory phase. In more persistent cases, the plaque is replaced by tough, fibrous tissue and may even form hard, calcium deposits.

Although injury explains some cases of Peyronie's disease, it does not explain why most plaques develop slowly with no apparent injury. Nor does it explain why some plaques 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).

About 1 in 5 men (20%) with Peyronie's disease also develop fibrosis (scarring) in other elastic tissues of the body (e.g. the palm of the hand or the sole of the foot). The commonest example is the condition known as [Dupuytren's contracture](#) of the hand.

In some men with Peyronie's disease, there is a clear family history of the condition, suggesting that it may be inherited.

What problems does it cause?

Peyronie's disease can affect the penis by causing:

- **Curvature and shortening of the penis**
The inelasticity (rigidity) of the plaque means it cannot stretch as the rest of the penis does when you get an erection. A plaque on the top of the penis causes the penis to bend upward; on the underside, it causes a downward bend. In some cases, the plaque develops centrally, leading to indentation and shortening. Pain, bending, and emotional distress may then limit sexual intercourse; and
- **Erectile dysfunction (impotence)**
This occurs due to the effect of the plaque reducing blood flow in the penis but may also occur as the change in penile shape can impact sexual confidence and well-being in some patients.

Once Peyronie's disease develops, it often leads to long-lasting changes in the penis. Whilst most treatments cannot fully restore your penile function to how it was before a diagnosis of Peyronie's disease, there are effective options available which can significantly improve your symptoms, reduce your discomfort and help you regain confidence.

How does it change over time?

The disease generally goes through two stages:

- **A painful, inflammatory phase**
This usually lasts up to 12 months. Whilst there is no exact method to determine if the acute phase has ended, a reduction in pain often indicates a transition to the next, non-painful, chronic stage (outlined below); and
- **A chronic or stable phase**
You are usually in this phase at least 6 months after the pain has stopped. During this time, no new changes occur to the shape or curvature of the penis.

In approximately 7 out of 10 men (70%) who enter the chronic phase, the disease will remain unchanged and stable. Two out of 10 men (20%) get a re-activation of the inflammatory phase, leading to more plaque development, and worsening curvature. In the remaining one out of 10 (10%), there may be spontaneous improvement in curvature without treatment. Although the plaque itself does not normally disappear completely, a new plaque can develop on the opposite side to the original one, leading to the penis straightening out.

Are there any effective treatments for the acute phase?

Peyronie's disease sufferers usually seek medical attention in the acute phase because of painful erections or difficulty with intercourse.

The goal of treatment is to **keep you sexually active**. Understanding the disease and its progression is an important first step. If there are no significant difficulties with penetration, active treatment may not be necessary.

Medical therapy

Oral medications (tablets) have shown limited effectiveness in reducing plaques and preventing progression. However, some may help in managing pain in the acute phase or may improve the quality of the erection, if those are the primary concerns.

Most clinicians favour one type of medical therapy over another, although the evidence for all is weak. Potassium para-aminobenzoate (**Potaba®**) tablets have the best available evidence for improving pain but are not very well tolerated.

Tablets such as [sildenafil](#), [vardenafil](#), [tadalafil](#) and [avanafil](#) can help by improving erectile dysfunction in Peyronie's disease, and this may be all the treatment that is required. Only generic sildenafil, however, can be prescribed on the NHS for this condition.

Traction devices

Traction devices have been used during the painful, inflammatory phase to limit the development and impact of curvature.

Using a [vacuum erection assistance device](#) twice a day for 10 minutes (or a penile extender traction device for six hours each day), over a period of three to six months, can help correct some of the curvature and preserve penile length. They do require regular and dedicated use to be effective.

Funding for these devices is not usually available on the NHS and they can cost between £150 and £400 to purchase.

What are the treatment options in the chronic phase?

These can be divided into non-surgical and surgical options.

Non-surgical options

- **Vacuum or traction devices**
These have been used in the chronic phase
- **Collagenase**

This is an enzyme that breaks down collagen (the main component of fibrous tissue). Although it has been found to be effective in Dupuytren's contracture (scarring in the palm of the hand) the results in the Peyronie's disease are less impressive. Most patients see an improvement in their curvature, the average being a reduction of 30 degrees. It is best for those with lower levels of curvature (less than 50 degrees), where a small level of correction avoids the need for surgery. However, with higher degrees of curvature, it may change the operation needed to one with lower complications.

Unfortunately, collagenase has been withdrawn from the European market and is no longer available as a treatment option in the UK. It is still available in other parts of the world, including the USA.

Surgical options

The aim of surgery is to get a functionally straight penis (i.e. one which allows you to engage in sexual activity and to have intercourse). This can be achieved by shortening the longer side of the penis (plication) or by lengthening the shorter side by cutting into the plaque and filling the gap with a graft (plaque incision and grafting).

The choice of procedure depends on:

- the degree of penile curvature;
- any additional shape change to the penis (such as “hour-glass” indentation in the contour);
- the total penile length; and
- the quality of your erections.

All [penile straightening operations](#) aim to correct the curvature of your penis. While complete reversal to its original state is unlikely, treatment can lead to significant improvements in curvature and, as a result, better sexual function.

What operations are available in the chronic phase?

Plication of the corpora cavernosa

Plication procedures are best for patients with good erectile function and less severe curvatures (less than 60 degrees). We counteract the curvature by “bunching up” the longer side, opposite to the plaque. There are many different plication techniques, but the most commonly used one is known as **Nesbit’s procedure**.

Stitches are used to bunch up the tissue; you may be able to feel the stitches under the skin of your penis afterwards.

Plication procedures always cause a degree of penile shortening which is linked closely to the amount of “bunching” performed to correct the curvature. You should speak to your surgeon about your particular case. Plication techniques carry a lower risk of both erectile dysfunction (impotence) and loss of penile sensation than plaque incision and grafting.

Plaque incision and grafting

Plaque incision and grafting is used for men with more severe curvatures (more than 60 degrees) but good quality erections. This technique carries a higher risk of erectile dysfunction (up to 1 in 4, i.e. 25%) and loss of penile sensation than a plication operation. It does, however, carry a lower risk of penile shortening.

It involves cutting into the plaque to release the scarred area, and using a graft to patch the gap. Traditionally, vein grafts were used (taken from your groin through a separate incision: the Lue procedure) but most urologists now use pre-packaged, off-the-shelf grafts.

If you wish to know what graft material will be used during your surgery, please discuss this with your surgeon.

To get to the plaque on your penis, we need to lift either the penile nerves (for an upward bend) or your urethra (for a downward bend, pictured right) from the body of your penis; we reposition these structures at the end of the procedure.



Implantation of penile prostheses

For men with any degree of curvature but poor erections that have not responded to treatment with sildenafil, vardenafil, tadalafil or avanafil, [implantation of penile prostheses](#) may be the best surgical option.

In this procedure, all abnormal tissue in the two corpora cavernosa is “cored” out to allow the implants to be put inside them. The device provides the “on-demand” rigidity needed for penetration during sexual intercourse.

Implanting the prostheses alone is usually enough to straighten the penis. Occasionally, the penis needs to be “moulded” back into shape or grafted (as in the plaque incision and graft operation) to get it straight.

What sources were used to prepare this leaflet?

This leaflet uses information from consensus panels and other evidence-based sources including:

- the [Department of Health \(England\)](#);
- the [Cochrane Collaboration](#); and
- the [National Institute for Health and Care Excellence \(NICE\)](#).

It also contains advice about the prescription of drugs. All NHS hospitals have local arrangements with their Clinical Commissioning Groups (CCGs) about which medicines can be used. Thus, some drugs mentioned cannot be prescribed by local hospitals.

Your treatment will be planned with the doctors responsible for your care, considering not only which drugs are, or are not, available at your local hospital but also what is necessary to give you the best quality of care.

Healthcare professionals are advised to check prescribing arrangements with their local hospital or CCG.

It also follows style guidelines from:

- the [Royal National Institute for Blind People \(RNIB\)](#);
- the [Patient Information Forum](#); and
- the [Plain English Campaign](#).

DISCLAIMER

Whilst we have made every effort to give accurate information, there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

PLEASE NOTE: the staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you have any questions, you should contact your Urologist, Specialist Nurse or GP in the first instance.