

Peyronie's disease

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What is Peyronie's disease?

Peyronie's disease (PD) (pronounced pay-ro-nee-z) is when a man develops a deformity of his penis, usually a curve, due to an abnormal fibrous scar tissue that has formed inside his penis. The process may be painful but many times there is no pain just the change in shape.

What are the symptoms of PD?

- A noticeable curve in the penis during an erection
- The penis may point upwards, downwards, to the sides or look twisted
- A tight band around the shaft penis can sometimes look like an “hourglass” deformity
- In more severe cases, the penis may look much shorter than before

Generally, there are three phases in PD.

- (1) An early phase where the penis is painful and starts to form a curve.
- (2) A transient or intermediate phase where the curve continues to undergo changes.
- (3) The last phase or stable (mature) phase where there is no more pain and the curve is more or less fixed.

The pain in the penis during the early phase usually subsides after a few months. Thereafter, you usually don't experience much pain except during intercourse, where the curved penis makes penetration uncomfortable for both you and your partner. In cases where the curve is very mild, intercourse can occur normally.

You or your partner may notice “something hard” in the penis, such as a nodule or lump, that is tethering the penis and causing it to bend during erections. This is where the scar tissue lies. The tissue feels hard because over time, calcium is deposited at the scar.

Problems with erections can occur in PD, especially when the smooth muscles in the penis are affected by the scarring. Patients may find it hard to initiate or maintain their erections.

The natural history of PD is that it will progress initially before stabilizing. In the stable phase, you will notice that the curve is no longer getting worse. Sometimes, the curve may actually show improvement, but this is rare without any treatment.

How do you get PD?

Sometimes, PD happens just before a definite injury to the penis (like hearing a “snap” during intercourse, or being hit badly in the groin during sports). But up to a third of patients do not remember any significant event that may have led to the curve.

The exact cause of PD is not fully understood. However, it is generally believed to be caused by small repetitive injuries to the fibrous and elastic covering that wraps around the spongy, blood filled part of the penis, called the tunica albuginea.

Every time this covering is injured, tiny blood vessels are broken and blood cells enter the space around the covering. When healing occurs, these blood cells may get trapped at the site of injury, causing a thick fibrous scar tissue to form. This scar tissue is tough, inelastic and undergoes contraction during the healing process. During normal erections, when the spongy part of the penis gets filled with blood, an elastic tunica albuginea expands uniformly, giving rise to a straight erection. So it is not hard to imagine how a curve can occur during erection, when one part of this elastic covering starts to lose its elasticity and becomes shortened.

There are certain risk factors that make you more prone to getting PD.

- If you have connective tissue disorders, such as Dupuytren’s contracture (where a thickening of tissue over his palm causes his fingers to become tethered and hard to straighten).
- If you have a family history of PD.
- If you are over age 50. Age-related degeneration of penile tissue may make them more prone to repetitive small injuries during sexual intercourse.

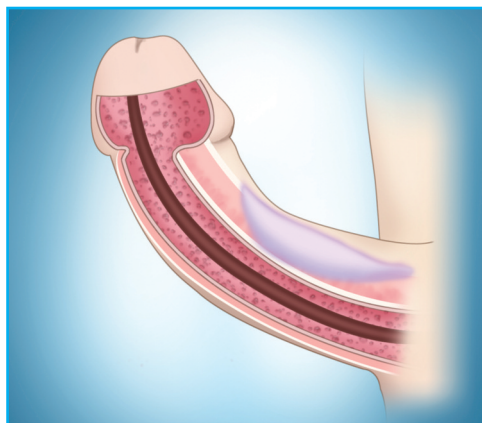


Figure 1. A cross-section of the penis with the Peyronie’s plaque.

How is PD diagnosed?

The diagnosis of PD is usually straightforward because very few other conditions can cause the clinical picture of a curved penis.

As the deformity of PD is usually more obvious during an erection, it may help to take pictures of your penis at this time from the side view (to see an upward or downward curve) and top view (to see a side curve) and show these to your doctor.

The doctor will examine the penis in its flaccid state to carefully feel for the position of the scar tissue and get an idea how extensive it is. You may have more than one area with abnormal scar tissue.

A specialized ultrasound of the penis can be arranged to better see the extent of the PD and to assess the blood supply of the penis. During the ultrasound, a small injection of prostaglandin E1 may be given into the flaccid penis to create an erection, so that abnormalities such as scarring, calcifications and poor blood supply can be better seen on ultrasound.

How should my PD be treated?

Not all cases of PD need treatment. If the penis is only minimally curved, and you and your partner are not bothered by it, and you continue to experience enjoyable sexual intercourse with no pain or difficulty, it is worthwhile to just monitor the condition.

Treatment should be considered when PD interferes with normal sexual function or causes distress to you or your partner.

The treatment for PD can be broadly classified into two types:

1. Non-surgical therapy which consist of oral medications, traction devices for the penis and intralesional injections.
2. Surgery which includes plication surgery, grafting surgery and insertion of penile prostheses.

I. Non-surgical therapy

Oral medications

Many medications have been used to treat PD; this ranges from vitamin E to anti-gout medications. The effectiveness is debatable.

In the light of newer scientific developments, medications which reduce inflammation and scar formation such as pentoxifylline and phosphodiesterase-5 (PDE-5) inhibitors are being used to treat PD. Results seem to show some benefit in stopping the progression of PD, but results in terms of correcting the curve altogether is not remarkable at this stage.

Traction devices for the penis

These devices are often used together with oral medications to manage PD. By subjecting the penis to regular stretching, the PD scars in the penis are encouraged to undergo a remodeling process which can lessen the curve. This form of treatment requires diligence and you should use the traction device for about four hours every day. This is like wearing dental braces, where a little tension every day can make a difference.

Intralesional injections

This is usually recommended for stable PD which has shown no improvement despite the use of oral medications or traction devices. As the name implies, injections are given directly into the scar tissue inside the penis. Medications, such like verapamil (a calcium blocking agent), interferon (an anti-scar forming agent) and collagenase (an enzyme that breaks down scar tissue) have been used successfully.

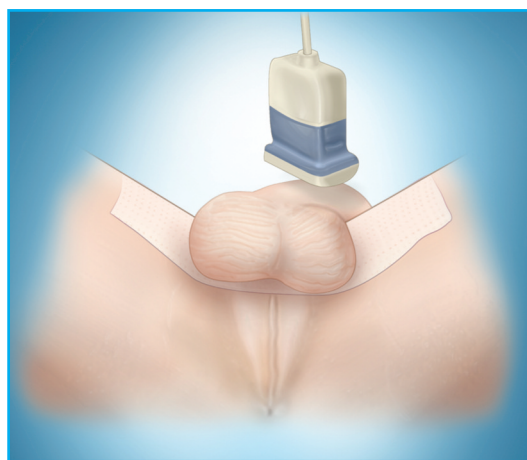


Figure 2. Ultrasound images of a Peyronie's plaque.

If you are taking this approach, you will have to undergo injections on weekly or every two weeks. Each time, you will get six to 12 injections.

To make sure the process is as painless as possible, you will get a local anesthetic to numb the penis before each injection.

2. Surgery

There are three types of surgeries: (1) plication surgery; (2) grafting surgery; and (3) insertion of penile prosthesis. Talk to your doctor about the best one for you. Generally, if you have good erections, you will likely have plication or grafting surgeries. If you have a combination of severe PD and poor erections, you will likely benefit from a penile prosthesis.

Plication surgery

Some call this the “shortening” surgery. The reason why is because during this surgery, sutures are placed in neat rows on the side of the penis directly opposite the scar tissue. These sutures are then tightened until the length of the tissue on the normal side matches that of the abnormal scar tissue. The result is a straighter penis during erections.

The advantage of plication is that it is a more straightforward surgery and you have a lower chance of developing erectile dysfunction after the operation. This disadvantage is that the sutures used may wear out and break and a repeat surgery may be needed five to 10 years later. If your penis is a good length, you have good erections and less serious curves, you can consider this option.

Grafting surgery

Some call this the “lengthening” surgery. The reason why is because, during this surgery, the scar tissue is cut to release some tension, while allowing the penis to be stretched and straightened. The gap created is then covered with a tissue patch or what is called a graft. Grafts can be taken from various sites of the patient’s body, such as the thigh. Synthetic grafts are also available.

The advantage of grafting is that it can preserve the length of the penis to a greater extent. The downside is that you have a higher chance of developing erectile dysfunction after the operation. If you have good erections, but also have a shortened penis because of PD, then this may be a good option for you.

Insertion of penile prosthesis

This is often called penile implants and is recommended for patients with PD and significant erectile dysfunction. If this is the case for you, plication or grafting surgeries will not help; they may make your erections worse.

During penile implant surgery, semi-malleable rods or inflatable cylinders are placed into the spaces in the penis which are occupied by spongy tissue that usually fills with blood during a normal erection. As these spongy tissues are no longer healthy enough to provide a good erection, the role of rigidity will be taken over by the semi-malleable rods or an inflated cylinder.

Any curve caused by PD can be corrected by making multiple cuts over the scar tissue and then molding the penis over the implant.

How will PD affect me?

If your PD is minor and does not interfere with penetration or cause any discomfort to your sexual partner during intercourse, the impact on sexual life will be very minimal.

If the PD creates a major deformity, it can make it difficult for you to penetrate your partner without causing pain or discomfort. If this persists, it may take the pleasure out of the relationship and lead to unnecessary stress.

PD can also affect the blood supply to the penis, leading to poorer erections.

What do I do if I think I have PD?

Take note of your symptoms and talk to your doctor about it.

Take note of the curve and pay attention to whether it is stable or getting worse. If sexual intercourse is painful to you or your sexual partner, you should consider stopping as further injuries may worsen your PD. You should also take note of your erections to determine if it has been affected by your PD.

If you can take photos of your erected penis, you should do so. A direct side-to-side view and top-to-bottom view will be able to capture most deformities.

When you see your doctor, all this information will help in deciding the best treatment for you.

What are some common misconceptions about PD?

My wife thinks my penis is crooked because I have been fooling around and refuses to have sex with me.

PD is not a sexually-transmitted disease. The deformity is due to an abnormal scar tissue and as such, it is not transmissible from person-to-person.

Can I lower my risk of getting PD by cutting down the number of times I have sex each week?

While PD is believed to be caused by repetitive small injuries to the penis during sexual intercourse, there is no direct relationship between the prevalence of PD and the level of sexual activity. You don't need to cut down on the number of times you have sex.

PD happens only in men who use the "woman-on-top" position during sexual intercourse.

While the woman-on-top position may lead to accidental penile fractures, it is not the direct cause of PD. Avoiding certain types of sexual positions does not prevent PD.