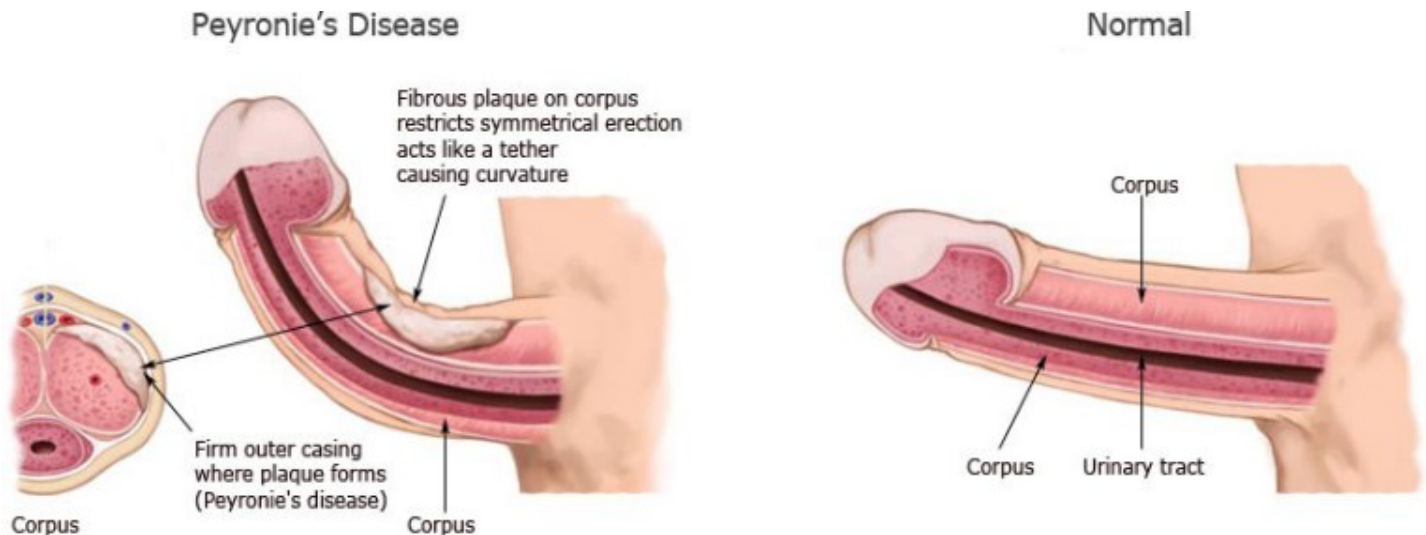


This handout explains the treatment options for men with Peyronie's Disease that is in the active phase.

### What Is Peyronie's Disease?

Named after the 18<sup>th</sup> century French physician Francois Gigot de la Peyronie, Peyronie's disease (also known as PD) is a scarring disorder of the penis that typically presents as a new-onset bump or curve with erections. This scarring can cause other changes to the penis as well, including both penile shortening and erectile dysfunction. Peyronie's disease often ranges in severity, with some men only noticing a slight 'knot' under the penile skin and others experiencing curvature and distortion so severe that sex becomes impossible.

Although Peyronie's disease is estimated to affect up to 1 out of 10 adult men, it's often not talked about. Fortunately, effective treatment is possible provided men seek out the counsel of an experienced urologist specializing in male sexual medicine.



### What Causes Peyronie's Disease?

Peyronie's disease is caused by the formation of irregular scar tissue in the erectile bodies of the penis. Nobody really knows why certain men form this scar tissue. Although 20% of men can remember a specific injury sustained during sex, most cannot. For these men, many experts believe that the normal 'wear and tear' that the penis typically experiences during healthy sexual activity may be what prompts this scar tissue to form.

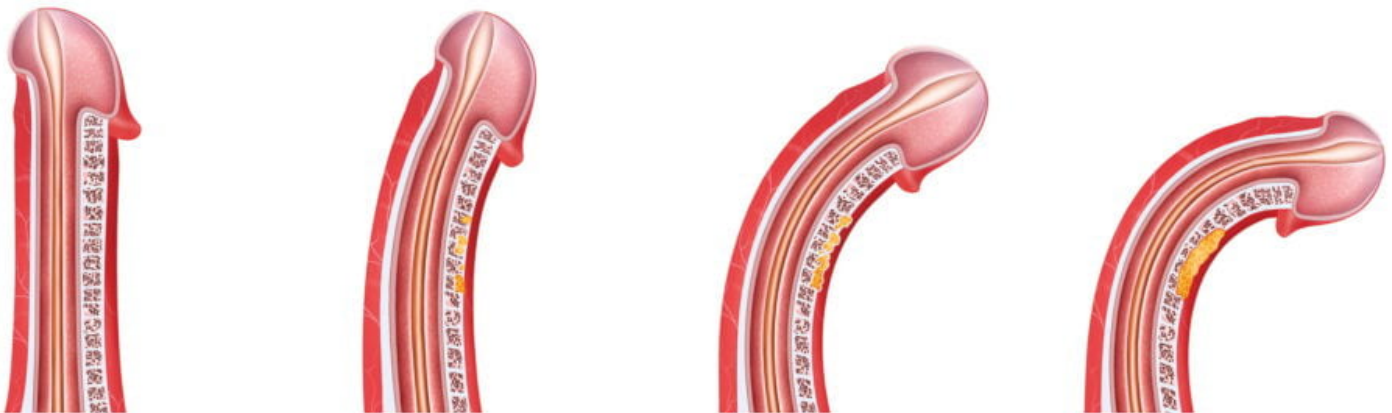
Regardless of the cause, it's important for men to know is that Peyronie's disease is not their fault. Many men often blame themselves for their Peyronie's disease and believe that it's the result of a mistake they made. While certain medical conditions may predispose men to developing Peyronie's (like erectile dysfunction, Dupuytren's contracture, or diabetes), Peyronie's can affect any adult man at any point in their life. It is nothing to be ashamed of and safe, effective treatment is available.

### What types of treatments are available for active phase Peyronie's?

Peyronie's disease is a physical disorder. That means it is an anatomic problem that requires an anatomic solution. This contrasts with purely medical disorders like high blood pressure, which are treated with medication alone. Oral medication by itself is unlikely to cure the changes that result from Peyronie's. However, judicious use of specific medications may prevent those physical changes from worsening in certain men who are still in the active phase of their Peyronie's disease. These are used as part of multi-modal therapy that includes daily traction. Of note, as there is no FDA approved oral medication option for Peyronie's disease, the use of these medications in this context is considered 'off-label'. However, these medications are very safe when used in men with Peyronie's and have been approved by the FDA for other indications.

To review, Peyronie's disease is typically divided into two distinct phases: 1) the active phase and 2) the stable phase. The active phase of Peyronie's is when the scar tissue inside the penis has just started to form and is still changing. This phase will typically last for about 6-12 months after men first notice a new bump or curve. During this time, the scar tissue itself is often painful and any penile curvature is likely to progress and worsen. Eventually, the curvature will stabilize and the discomfort within the scar tissue itself will fade (for most men). At this point, men are considered to have reached the stable phase of their Peyronie's disease.

### PLAQUE FORMATION STAGES



### What temporary oral medications are used for active phase Peyronie's?

Many men who are in the active phase of Peyronie's disease may benefit from temporary oral medications as part of multi-modal therapy designed to decrease the risk of curvature progression. This includes traction therapy, which is discussed later in this handout. We will discuss the treatment of Peyronie's disease that's reached the stable phase in a separate handout. The medications that we typically recommend in our practice for active phase Peyronie's are the following:

### Temporary Oral Medications Used in Active Phase of Peyronie's Disease

- 1) Once daily dose of tadalafil 5 mg (aka generic Cialis)
- 2) Twice daily dose of L-citrulline 1500 mg
- 3) Three times daily dose of pentoxifylline 400 mg (aka generic Trental)

### What is the medication tadalafil (also known as Cialis)?

Tadalafil (the generic name for Cialis) is a medication known as a 'phosphodiesterase inhibitor'. It is typically prescribed to men with mild erectile dysfunction to boost the chemical pro-erectile signals in the penis. This can allow men with mild erectile dysfunction to achieve erections by improving blood flow to the penis. Many men with Peyronie's disease are thought to suffer from poor penile blood flow as part of their condition. A daily 5 mg dose of tadalafil increases baseline penile blood flow and may reduce the risk of continued scarring while improving erectile quality.

Although tadalafil is incredibly safe, it should NOT be taken by men who are also taking 'nitrate' containing medications as it may cause an unsafe drop in blood pressure. Some examples of these include nitroglycerine tablets, isosorbide mononitrate, and nitroglycerine patches. If you're unsure if you're taking one of these medications, please call our office at (423) 472-3201 to review your medication list before you start taking this medication.

Depending on your insurance, your pharmacy may state that a 'prior authorization' is required prior to filling your prescription. Our office does NOT submit prior authorizations for this medication. If your pharmacy tells you this, please download the smartphone app 'GoodRx' ([www.goodrx.com](http://www.goodrx.com)) and use the provided coupon for an affordable cash price. Your pharmacy can help you with this process. You may need to ask your pharmacy to send the script to a different pharmacy to get the best price (Food City is typically the cheapest).

### What about the supplement L-citrulline?

L-citrulline is a dietary supplement that is readily available over-the-counter and does not require a doctor's prescription. Like tadalafil mentioned above, it has been shown in studies to boost the chemical pro-erectile signals in the penis, although it does so in a slightly different mechanism. That's why we recommend that men take L-citrulline in addition to their daily tadalafil.

We recommend a dose of 1500 mg twice daily. Although we do not recommend any particular brand, L-citrulline can be purchased easily from most health food stores or ordered online from Amazon (<https://amzn.to/2XJeAAu>). As with the previously mentioned daily tadalafil, we recommend that men who are taking nitrate medication not take L-citrulline as it may cause an unsafe decrease in blood pressure.

### What is the medication pentoxifylline (also known as Trental)?

Pentoxifylline is a medication originally designed to improve blood flow to muscles in patients with poor circulation. However, some studies suggest that it may reduce the progression of penile curvature in men with Peyronie's in the active phase while reducing the amount of calcium found in Peyronie's scar tissue.

We recommend a dose of 400 mg three times daily. Pentoxifylline is very safe, however it can cause upset stomach or loose stools in a small number of men who are sensitive to these side-effects. To reduce these risks, we recommend taking it with meals. If you still experience side-effects, we recommend trying to decrease your dose to twice daily. If this is not effective, you can then decrease the dose to once daily or stop altogether if required.

### What if I'm experiencing significant discomfort with my Peyronie's?

Many men may experience discomfort when in the active phase of Peyronie's. Some men only experience this discomfort with erections, while others may experience it even while flaccid. This discomfort will typically fade in most men as they transition to the stable phase of Peyronie's, but it can persist in some men long-term.

If you're experiencing discomfort with your Peyronie's, the best treatment option is typically non-steroidal anti-inflammatories (NSAIDs) like ibuprofen (aka Motrin) combined with acetaminophen (aka Tylenol). These are readily available over-the-counter without a physician's prescription.

If men require a medication that is longer lasting and slightly more potent, we will often prescribe the medication celecoxib 200 mg (aka Celebrex). Celecoxib is a prescription strength NSAID that can be combined with acetaminophen to control the discomfort associated with Peyronie's. It is very safe, however it should never be combined with any other NSAIDs (like ibuprofen) and shouldn't be used in men with medical kidney disease.

### What about traction therapy?

Traction therapy is essentially physical therapy for the penis. By gently stretching the penis and bending it against the curve, many men can often achieve significant curvature improvement. Traction therapy can help prevent progression in men who are in the active phase of Peyronie's disease and even improve a pre-existing curve in men who have reached the stable phase of Peyronie's. Traction therapy is also used in some men following certain straightening procedures.

Traction therapy is an essential part of multi-modal therapy during the active phase of Peyronie's disease. Ideally, it should be accomplished with a dedicated tool like the RestoreX penile traction device ([www.RestoreX.com](http://www.RestoreX.com)). Although this typically yields the best result, the RestoreX device is not covered by insurance and may be too expensive for some men. In these cases, traction therapy can be performed manually using dedicated hand exercises.