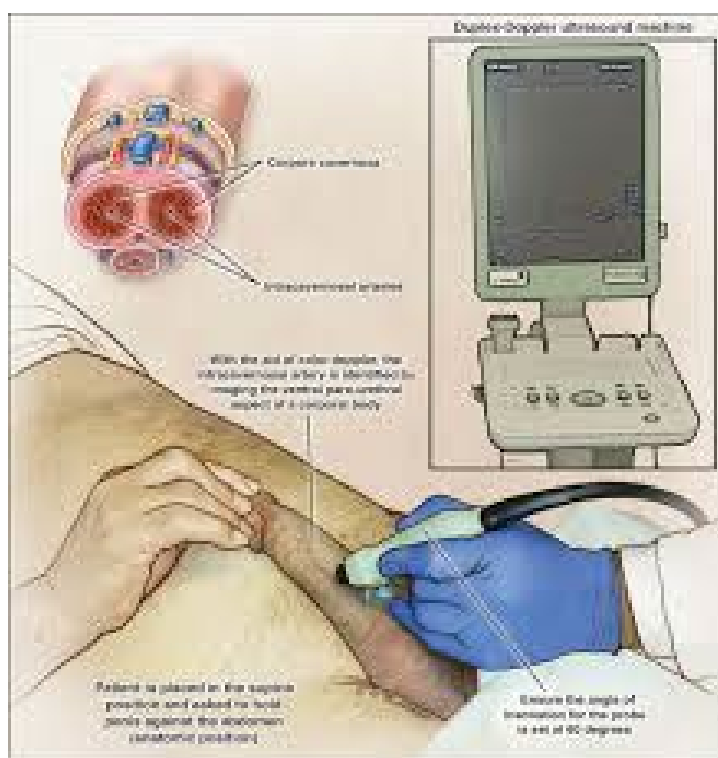


Penile Duplex Ultrasound

This handout explains what penile duplex ultrasound (also known as the penile doppler) is and how it's used to evaluate men with erectile dysfunction (ED) and Peyronie's disease (aka penile curvature). **For an electronic copy of this brochure and more information on ED and Peyronie's disease, we encourage you to visit our website at www.MensHealthIN.com.**

There we have several educational resources including video content and other handouts. If you ever have any questions or concerns, please feel free to call the Men's Health Center at (317) 564-5104.



What is penile duplex ultrasound (aka the penile doppler or 'duplex')?

Penile duplex ultrasound (aka the penile doppler or 'duplex') is a non-invasive way to measure penile blood flow. Ultimately, the male erection is the result of two inflatable tubes that start in the pelvis and extend out the shaft of the penis. These tubes, known as the corpora cavernosa, fill with blood when stimulated. This causes them to extend in both length and girth, resulting in a rigid erection that can be used for sex.

Most non-emotional causes of erectile dysfunction result from problems with this blood flow. Penile duplex ultrasound provides an objective measurement of this blood flow along with a

comprehensive assessment of penile anatomy. This makes it the diagnostic test of choice for both men with erectile dysfunction and men with Peyronie's disease (penile curvature).

What sort of information does the duplex provide?

The majority of erectile dysfunction results from problems with penile blood flow, not from emotions or performance anxiety. This can manifest in one of three ways. Men with erectile dysfunction can suffer from:

1. Not enough blood flow into the penis (aka arterial insufficiency)
2. Too much blood flow out of the penis (aka venous leak)
3. A combination of both.

The penile duplex ultrasound offers insight into what type of erectile dysfunction a man is struggling with. Imagine filling the body's erectile cylinders is like filling up a glass with water. Arterial insufficiency is like not being able to pour in enough water to fill the glass. Venous leak, on the other hand, is like trying to fill a glass that has a hole cut in the bottom. It doesn't matter how much fluid is poured in because it immediately leaks out! Understanding this can be important for the decision-making process in erectile dysfunction.

For men with Peyronie's disease, the penile duplex can detect whether significant erectile dysfunction is also present. It also allows for formal measurement of any penile curvature and a comprehensive assessment of penile anatomy. Any penile scar tissue can be examined, which can provide valuable data regarding the presence or absence of calcium deposits.

Do all men with erectile dysfunction or Peyronie's need a duplex?

Not necessarily! Men with mild erectile dysfunction that still responds to oral medication like sildenafil (Viagra) or tadalafil (Cialis) typically do not require a penile duplex. The same is true for men with Peyronie's disease that is still in the active phase. However, for men with Peyronie's disease in the stable phase or erectile dysfunction that does not respond to oral medication, we usually prefer to obtain a penile duplex whenever possible because of the information it provides. In fact, we will often obtain it as part men's initial consultation to facilitate the treatment process.

What should I expect if I'm scheduled to have a duplex?

If you're scheduled to undergo a penile duplex, it's because it's likely to provide important information that will facilitate your treatment. Our first advice to patients is to relax. Many men are nervous going to the doctor to discuss such personal issues and the idea of having a

test performed that examines their penis can bring about significant anxiety. To those men, we want to reassure you, **please don't worry!** The penile duplex is non-invasive, non-painful, and performed in complete privacy by trained professionals who practice the utmost discretion and value your trust. The duplex exam will require approximately 1 hour of your time.

When you arrive for your penile duplex appointment, you can expect the following:

1. **The Check-In Process**

- You will check in at our front desk approximately 15 minutes prior to your scheduled appointment. Remember, it's always better to be early than late!
- Our staff will have you sign some paperwork including a permission slip that allows us to perform the exam.

2. **Coming Back to the Room**

- When it's time for your exam, our ultrasound technician will call you back to our exam room. This is a private room where the ultrasound will be performed.
- Our technician will confirm your name, date of birth, and the reason for your visit.
- You will then be directed to disrobe from the waist down and lie down on our exam table with a warm sheet to cover you.

3. **Medication Administration and the Duplex Itself**

- One of our trained clinical staff will then introduce themselves to you.
- They will administer a small amount of pro-erectile medication into the side of the penis in order to induce an erectile response. This uses one of the smallest needles made and is generally not painful.
- Our clinical staff will then excuse themselves and our ultrasound technician will perform regular measurements at timed intervals.
- These measurements are obtained using a non-invasive probe that sits on the penile skin along with medical-grade ultrasound gel.
- Any penile curvature, if present, will be assessed and measured at this time.
- Our ultrasound technician will also ask about the quality of your erection with the medication and how it compares to your sexual function at home.

4. **Finishing the Duplex and Departing**

- Once the exam is complete, our clinical staff member will re-enter the room and administer a medication to reverse the erectile response. This ensures that men do not develop an erection that will not resolve with normal measures.
- With the exam complete and the erectile response reversed, you will be asked to dress yourself and return to the waiting room.

- If you are scheduled for a same-day consultation, our staff will call you back to one of our consultation rooms when it's time.
- If you are not scheduled for a same day consultation, we will ask you to remain in our waiting room for approximately 10 minutes to ensure your erection (if present) has reversed.

Are there any side effects from the duplex?

The penile duplex exam is incredibly safe and there are no real side effects from the duplex itself. However, the pro-erectile medication that we use as part of the exam, although very safe, does carry the risk of a prolonged erection (also known as a priapism) and can cause some temporary penile soreness. This penile discomfort is very temporary (if present at all) and typically resolves in a day or so.

The risk of a prolonged erection is minimal, especially if the erection reversal medication is used. However, if you do develop an erection that lasts longer than 1 hour or does not resolve with sexual activity, please call our office immediately at (317) 564-5104. If our office is closed or unavailable, please visit your nearest emergency room as soon as possible so the erection can be taken down.

The reversal medication that we use is also very safe, but it can make some men feel flushed or a little lightheaded for a few moments after injection. This typically resolves extremely quickly though.

Who should I call if I have any questions or concerns before my appointment?

If you have any questions or concerns prior to your scheduled appointment, please don't hesitate to call the Men's Health Center at (317) 564-5104. If you want to learn more about erectile dysfunction, Peyronie's disease, or the treatments we use to cure men with these conditions, please visit our website at our website at www.MensHealthIN.com. There we have several educational resources including video content and other handouts. If you still need to schedule your consultation, call our scheduling office at (877) 362-2778 to make your appointment today!