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THE PATIENT'S GUIDE TO VARICOCELE

The Varicocele Decision

Varicoceles are a relatively common problem that can hurt a man's fertility. The good news is that this is a fairly simple problem to fix. Dr. Fisch has treated hundreds of men with varicoceles. While each patient's condition is unique, there are many questions that are frequently asked. This guide will help prospective patients feel confident about their decision to consider varicocele repair, and more in control over the procedure and recovery.

What is a varicocele?

A varicocele (pronounced VAR-uh-ko-seal) is a bundle of enlarged veins in a man's scrotum, which is the sac that holds the two testicles. The veins may be visible as lumps on the scrotum and feel like a bag of worms when massaged gently. The veins become enlarged because some of the tiny valves inside the veins don't close properly. The valves normally prevent blood from draining backwards. When the valves fail, blood pools in the veins, causing them to swell. Many men don't realize they have a varicocele because the veins typically don't hurt and don't change the feeling of orgasm or ejaculation.

How does a varicocele hurt my fertility?

Sperm are made in the testicles, which hang in the scrotum away from the body. This design is required because testicles need to be slightly cooler than normal body temperature to make sperm. Anything that warms the testicles will hurt sperm production. This is what a varicocele does. The extra blood pooling in the enlarged veins warms the nearby testicle unnaturally and cuts sperm production.

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Can a varicocele hurt my testosterone production?

Yes, in addition to hurting a man's fertility, varicoceles can also decrease testosterone production. Larger testicles make more sperm and testosterone than smaller testicles. In men who have a large, one-sided varicocele, the testis with the varicocele may be contributing significantly less sperm and testosterone to the total than the normal one. However, even in the normal testicle, production of sperm and testosterone is lower. The varicocele is not only damaging the testis on the side where it is found, but it also can be suppressing sperm production on the other side.

Could pain in my testicles be caused by a varicocele?

It's not likely that testicular pain is caused by a varicocele, but it is possible. Only five to ten percent of men who have a varicocele experience any pain. This pain may be dull or sharp, and it usually gets worse over the course of the day. Standing or physical exertion, especially for long periods, may cause an increase in pain. The pain is usually relieved when the man lies down on his back.

If my adolescent son has a varicocele, should that be repaired?

Yes, varicoceles in adolescents should be repaired. Untreated varicoceles in adolescents can result in undersized testicles, lower semen volumes, low sperm counts and misshapen sperm. All of these disorders can affect fertility as the adolescent gets older.

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My scrotum hangs low and looks asymmetrical. Could I have a varicocele?

Yes, an abnormal or asymmetrical scrotum is frequently caused by a varicocele on one side of the scrotum. Often the entire side of the scrotum with the varicocele hangs much lower than the other side. The veins may be visible and the scrotum may have an odd, asymmetrical shape that can cause embarrassment.

How common are varicoceles?

About 20% of the male population have some kind of varicocele. Varicoceles are probably the result of very subtle genetic effects which, at present, remain unknown. Sometimes varicoceles begin to form in the teen years, which is cause for concern. Untreated adolescent varicoceles can result in under-sized testicles, lower sperm counts, and more misshapen sperm. But varicoceles can happen at any age…and in general, the older you are the more likely you are to have a varicocele. Unfortunately, many doctors still don't recognize the role that varicoceles play in male infertility and may minimize the importance of having a varicocele corrected surgically.

How are varicoceles diagnosed?

Since they seldom cause any pain or discomfort, most varicoceles are discovered during routine physical exams, or exams associated with an infertility work-up. Physicians typically diagnose varicoceles by asking the man to stand up, take a deep breath, and bear down while the physician feels the scrotum above the testicle. If a varicocele is suspected, a physician may order a scrotal ultrasound test.

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Dr. Fisch will conduct ultrasound tests if fertility issues appear to be caused by a varicocele. Subclinical varicoceles are lesions not detected by routine examination. These lesions are smaller than "clinical" varicoceles, but they can affect fertility. Almost one-third of men with infertility have an abnormal finding on the ultrasound that was not suspected during the physical examination

The duplex ultrasound is currently considered the best non-invasive way to identify and confirm the presence of varicoceles. First, a thorough ultrasound of the testis is performed. The diameter of the veins can be measured and abnormalities may be identified.

The second part of the ultrasound evaluation measures the blood that flows past the probe when the patient pushes down. This blood flow confirms the varicocele. This blood flow can be seen and heard.

A Doppler stethoscope will amplify the sound of blood moving past a varicocele. At rest, only the pumping of the artery should be heard. The blood flow in the veins is so slow that no sound can be heard. When the patient pushes down, more blood flows backwards into the scrotum and can be heard as a rushing sound.

How can a varicocele be fixed?

Varicocele repair surgery is relatively simple. The goal is to locate the distended veins and tie them off or block them to prevent blood from pooling. There are three main surgical techniques used to correct a varicocele and one non-surgical technique. Which method is best depends on the particulars of a man's anatomy, the nature and location of the varicocele, whether previous surgery has been performed, and other factors such as surgeon preference and/or amount of experience.

Most commonly, microsurgery is performed through a single incision in the lower abdomen on the affected by the varicocele. Dr. Fisch uses smaller incisions, which avoids cutting as much muscle tissue

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and speeds recovery. Dr. Fisch has perfected these microsurgical techniques for varicocele repair and has published "A Novel Surgical Approach to Subinguinal Varicocelectomy: Artery and Lymphatic Isolation Technique" , which has been adopted by many doctors in the United States.

In this varicocele repair procedure, a small incision is made in the inguinal area, in the region of the pubic hair, not in the testicles. The incision is about an inch in length. The abnormal blood vessels are closest to the skin at that area. The vessels are secured. The abnormal blood vessels are then microsurgically dissected away from the normal structures and tied off.

Is varicocele repair surgery safe?

Complications from varicocele repair are rare, but include the persistence or recurrence of the varicocele, formation of a fluid-filled space called a hydrocele, and injury to the testicular artery. Dr. Fisch has never experienced any of these complications.

Do I need any special tests before surgery?

No special preoperative tests are needed before a varicocele repair other than the standard lab tests required by some hospitals, ambulatory surgery facilities or anesthesiologists. For men more than 40 years old, an EKG is usually required.

What type of anesthesia is used?

Varicocele repair may be performed with local, regional, or general anesthesia, depending on the preference of surgeon and patient. Dr. Fisch uses general anesthesia because it affords maximum patient comfort during the surgery.

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What should I expect after surgery?

Varicocele surgery is usually done on an outpatient basis, and recovery us usually rapid. Pain is usually mild. Swelling around incisions usually goes away after several days, and discoloration of the scrotum will resolve in a week or so. You shouldn't lift anything heavy or exercise strenuously for two weeks, although office work can typically be done one to two days after surgery.

How soon can I have sex after surgery?

It is generally best to wait three weeks after the surgery before resuming any type of sexual activity.

When will I know if the surgery was successful?

It takes about three months for sperm cells to be created and matured. A follow-up semen analysis is usually obtained three to four months after the surgery. The physician will evaluate the number and health of the sperm and compare this with a sample taken before the procedure. Improvement is often seen within six months, but may not be observed until one year after the surgery. Semen quality is improved in about 60 percent of infertile men undergoing repair of a varicocele.

What are my options if the repair doesn't solve the problem?

If a man's semen quality does not improve after varicocele repair, and if other potential sources of infertility are ruled out (such as an infection in the reproductive tract) several options remain to allow the man to father children. On option involves taking healthy sperm from a man's ejaculate and using this for in-vitro fertilization (IVF). If a man has no sperm in his ejaculate sperm may still be obtained through a minor surgical procedure (sperm retrieval) which extracts sperm directly from the testicles and/or epididymis.

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Is there a non-surgical repair available?

The non-surgical procedure for varicocele repair is called percutaneous embolization and it is much less commonly used than surgery. In this procedure, a special tube is inserted into a vein in either the groin or neck and guided to the varicocele. Once in position, a tiny coil or balloon is released that blocks the veins. Percutaneous embolization usually takes several hours to complete.

How can I contact Dr. Harry Fisch?

Please contact Dr. Fisch by phone at (212) 879-0800 or visit his website: www.harryfisch.com/contact/ and request a consultation through his online form.

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