# **Pelvic Ultrasound**







## **Before Your Exam:**

Drink 32 oz. of water one hour before your examination time. Try to drink all the liquid within 30 minutes.

Do not urinate before the exam. Arrive for your exam with a full bladder.

## **During Your Exam:**

- 1. You will be asked to remove any clothing, jewelry, or other objects that may interfere with the scan.
- 2. If asked to remove clothing, you will be given a gown to wear.
- 3. You will lie on your back on an examination table.
- 4. The technologist will apply warm gel to the skin of your abdomen. This gel helps the sound waves to get from the machine into your body. It is similar to hair styling gel
- 5. The transducer will be pressed against the skin and moved around over the area being studied.
- 6. If blood flow is being assessed, you may hear a "whoosh, whoosh" sound when the Doppler probe is used.
- 7. Images of structures will be displayed on the computer screen. Images will be recorded on various media for the healthcare record.
- 8. Once the procedure has been completed, the gel will be removed.
- 9. You may empty your bladder when the procedure is completed.

Your exam will take between 30 and 45 minutes.

## After the Procedure

There is no special type of care required after a pelvic ultrasound. You may resume your normal diet and activity unless your physician advises you differently.

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

Your physician may give you additional or alternate instructions after the procedure, depending on your particular situation.

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# Venous Doppler Ultrasound (Upper Extremity)







Your doctor has requested an ultrasound of your deep venous system. Venous doppler's are most commonly performed for arm pain, arm swelling and lumps.

#### Who performs the examination?

Ultrasounds are performed by specialist staff called sonographers.

#### **Before Your Exam:**

There is no prep for this exam (*although* you may want to wear sweats or shorts, as your bottom clothing will have to be removed). Under garments can be left on.

### **During Your Exam:**

The sonographer will ask you to lie down on a bed. The sonographer will apply warm gel to the skin of the affected leg and then gently press an instrument called a transducer across the gel on your leg. With this exam, the sonographer will always start in the groin area and work his/her way down your leg to behind your knee and occasionally will scan your ankle area also. To assess for a blood clot, the sonographer will have to squeeze on your leg below the area the transducer is imaging. You will hear whooshing noises as the sonographer is evaluating your blood flow. Once the sonographer is satisfied that the images are accurate the examination is over.

Your exam will take approximately 45 minutes.

#### What does the ultrasound show?

Venous Doppler ultrasounds can show blockages to blood flow known as blood clots, venous insufficiency know as reflux, narrowing of vessels (*which may be caused by plaque*), Baker's Cyst's (*fluid filled area behind knee*) and tumors and congenital malformations.

#### **After Your Exam:**

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# Abdomen/ Liver Ultrasound







Your doctor has requested an abdominal ultrasound. Abdominal ultrasounds are performed to assess the structure of organs in the abdomen. Ultrasounds can safely look for the cause of many different symptoms such as abdominal pain, lumps or swelling and to detect gallstones. The ultrasound examination can not treat the symptoms but can identify the cause so that affective treatment can be administered.

## **Before Your Exam:**

To ensure that accurate images are taken, you are required to fast for at least 6 hours prior to your appointment. This includes no eating, drinking (other than water), smoking or chewing gum. Please drink only sips of water during this time and take medication as normal.

#### Who performs the examination?

Ultrasounds are performed by specialist ultrasound staff called sonographers.

### **During Your Exam:**

You will be required to remove clothing from your abdominal area and, in some cases you may be required to change and wear a gown which is provided. The sonographer will ask you to lie down on a bed. The sonographer will apply warm gel to your abdomen and move an instrument called a transducer over your abdomen. The images that this takes will appear on a screen. Once the sonographer is satisfied with the accuracy of the images the examination is over.

Your exam will take approximately between 30 and 45 minutes.

#### What does the ultrasound show?

Abdominal ultrasounds show the size and shape of abdominal organs such as the liver, kidneys, spleen ,pancreas, gallbladder and more. It can also assess whether lumps and swellings require further investigation. Lumps that are symmetrical and contain fluid are usually cysts whereas lumps with solid parts may require a biopsy to determine if they are benign or malignant.

## After Your Exam:

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# **Abdominal Ultrasound**







Your doctor has requested an ultrasound of your abdomen. Ultrasound is a safe and painless procedure that uses sound waves to "see" inside your body. The scan can help diagnose such medical conditions as abdominal masses, gallbladder disease and gallstones, as well as problems in the liver, kidneys, pancreas or spleen. We have an expert team of technologists who are highly trained in ultrasound imaging.

### **Before Your Exam:**

You must not eat or drink for eight hours before your exam. Take medications with a small sip of water.

### **During Your Exam:**

- You will be asked to raise your shirt up to the chest area and pants pushed down below belly button to access the abdominal organs.
- 2. Your procedure will be performed with you lying flat on your back on the examination table.
- 3. The technologist will apply warm gel to the skin of your abdomen. This gel helps the sound waves to get from the machine into your body. It is similar to hair styling gel.
- 4. A transducer, a small, microphone-like device, will be placed over various locations on your abdomen.
- 5. Sound waves will bounce off certain organs and tissue in your body. This creates "echoes." The echoes are reflected back to the transducer, which converts them to electronic signals. A computer then processes the signals into pictures and shows them on a television monitor.
- 6. These moving images may be viewed immediately or photographed for further study.

Your exam will take approximately between 30 and 45 minutes.

### **After Your Exam**

You may resume your regular diet, unless told otherwise by your doctor.

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# **Carotid Ultrasound**









Your doctor has requested an ultrasound of the carotid arteries. Carotid ultrasounds are usually used to see if there is any narrowing of the neck arteries which can increase the risk of a stroke. Your doctor may refer you for an ultrasound if you have elevated blood cholesterol levels, a family history of strokes, TIAs, diabetes or other circumstances.

#### Who performs the examination?

Ultrasounds are performed by specialist ultrasound staff called sonographers.

### **During Your Exam:**

In most cases you will be required to remove clothing that obstructs the neck. The sonographer will ask you to lie down on a bed and keep your head as still as possible. The sonographer will apply warm gel to your skin and then gently press an instrument called a transducer across the gel on your neck. This will happen on both sides of your neck to receive the images of both arteries. Once the sonographer is satisfied that the images are accurate the examination is over.

Your exam will take approximately 45 minutes but can vary from person to person.

#### Is the examination painful or uncomfortable?

Other than the feeling of the gel, you should not feel any pain or discomfort during this examination.

#### What does the ultrasound show?

As ultrasounds produce images in real time it is possible to see the flow of blood through the artery at the very moment of the scan. If there is arterial narrowing or obstructions reducing the flow of blood through the artery, the ultrasound will show it in most cases. This information can then be used to assist with the treatment.

### **After Your Exam:**

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# **Renal Ultrasound**









Your doctor has requested an ultrasound of your kidney. Ultrasound is a procedure that uses sound waves to "see" inside your body. This procedure is used to detect a mass, cyst, kidney stone or other obstruction in the kidney. We have a specialized team of technologists who are experts in ultrasound imaging.

## **Before Your Exam:**

In order to obtain precise pictures you must not eat for 6 hours prior to your appointment. This includes no eating, drinking (except water), chewing gum and smoking.

## **During Your Exam:**

- 1. Your procedure will be performed with you lying on the examination table on your back. The technologist may ask you to turn on your side to get a better view of your kidneys.
- 2 The technologist will apply warm gel to your abdomen.
- 3. A transducer, a small, microphone-like device, will be placed over various locations on your abdomen. The technologist may ask you to hold your breath intermittently during the exam. If needed, the technologist may ask you to use the restroom to empty your bladder and additional images will be taken afterwards.
- 4. You will not feel any pain; however you will feel mild pressure from the transducer.
- Sound waves will bounce off the muscle, tissue and organs in your body and the blood moving in your new kidney. This creates "echoes." The echoes are reflected back to the transducer.
- 6. A computer monitor shows images as the transducer converts the echoes to electronic signals. These images may be viewed immediately or photographed for further study

Your exam will take approximately between 30 minutes.

## **After Your Exam**

There are no post-exam instructions.

Your study will be reviewed by an ultrasound specialist (*Radiologist*) and the results will be sent to your physician. Your physician will discuss these results with you and explain what they mean in relation to your health.

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# Testes/ Scrotal Ultrasound







Your doctor has requested an ultrasound of the testes/scrotum. An ultrasound can be performed for several reasons including: Lumps or pain suffered in the area by men. In most cases pain is caused by swelling of the epididymis which can be easily treated. Absent testicles in boys and young men. These are usually simply undescended and lie in the abdomen area. It is important to diagnose an undescended testicle as if left untreated has a high cancer risk. Testicular Torsion: Testicular pain may be experienced in response to twisting of the spermatic cord which supplies blood to the testicles. A rapid diagnosis of this is important to avoid any permanent damage.

Ultrasound emits no radiation and therefore has no damaging affect upon the testes and fertility and so is almost always the preferred method of testicular imaging.

There is no prep, though you might want to wear sweats.

## **During Your Exam:**

In most cases you will be asked to remove your clothing from below the waist. The sonographer will then ask you to lie on a bed. The sonographer will apply a warm gel to your scrotum. The sonographer will then gently press an instrument known as a transducer over your scrotum to obtain images which will appear on a screen. Once the sonographer is satisfied that the images are accurate the examination is over.

Your exam will take between 30 and 40 minutes.

#### Is the examination painful or uncomfortable?

Usually there should be no pain caused by a testes/scrotal ultrasound. In extreme cases the slight pressure of the transducer upon the scrotum can cause some pain. The ultrasounds themselves are completely pain free.

#### What does the ultrasound show?

As the scrotum and surrounding tissues are relatively thin, scrotal ultrasounds are extremely concise and can show lumps and swellings in detail. Lumps that are symmetrical with clear fluid in them are cysts and are not usually harmful. Solid lumps or lumps with solid parts may need further examination however in most cases scrotal lumps occur outside the testes and are benign. Ultrasound examinations can show whether missing testicles are undeveloped or as in most cases, simply undescended.

## After Your Exam:

Your study will be reviewed by an imaging physician (*Radiologist*) and the results will besent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# **Thyroid Ultrasound**







Your doctor has requested an ultrasound of the thyroid. An ultrasound can determine the size and shape of the thyroid gland. Changes in size, shape and the appearance of lumps on the thyroid gland can be assessed using the ultrasound images. Lumps in the thyroid are common and are easily treated in most cases. We have an expert team of technologists who are highly trained in ultrasound imaging.

### **During Your Exam:**

Thyroid examinations are usually very quick and cause no pain or discomfort. You do not normally have to change clothes as long as your neck is exposed. You will be asked to lie down and extend your neck to expose your throat area. The sonographer will apply a warm gel to the front of your neck and then gently press an instrument called a transducer over the area where gel is applied.

An image of your thyroid gland along with several other glands that lie in or around the thyroid should appear on a screen. Once the sonographer is satisfied that the images are accurate your examination is over.

Your exam will take between 25 and 30 minutes.

#### Is the examination painful or uncomfortable?

Other than the feeling of the gel there should be no pain or discomfort felt during a thyroid ultrasound examination.

#### What does the ultrasound show?

The ultrasound images can show the size and shape of the thyroid but not the function of it. The composition of lumps can be assessed to see if there is more investigation required. Lumps that appear symmetrical and contain only fluid are usually simple cysts whereas lumps that are solid or have material floating in them require further investigation. The ultrasound cannot identify whether a solid tumor is benign or malignant. This can only be determined by having a biopsy.

## After Your Exam:

Your study will be reviewed by an imaging physician (*Radiologist*) and the result swill be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# Transvaginal Pelvic Ultrasound







## **Before Your Exam:**

You will empty your bladder after the transabdominal pelvic has been performed and prior to your transvaginal exam.

## **During Your Exam:**

- 1. You will be asked to remove any clothing, jewelry, or other objects that may interfere with the scan.
- 2. You will be given a gown to wear.
- 3. You will lie on an examination table, with your feet and legs supported as for a pelvic examination.
- 4. A long, thin transvaginal transducer will be covered with a plastic or latex sheath and lubricated. The tip of the transducer will be inserted into your vagina. This may be slightly uncomfortable.
- 5. The transducer will be gently turned and angled to bring the areas for study into focus. You may feel mild pressure as the transducer is moved.
- 6. If blood flow is being assessed, you may hear a "whoosh, whoosh" sound when the Doppler probe is used.
- 7. Images of organs and structures will be displayed on the computer screen. Images may be recorded on various media for the healthcare record.
- 8. Once the procedure has been completed, the transducer will be removed.

Your exam will take between 30 and 45 minutes.

## **After the Procedure**

There is no special type of care required after a pelvic ultrasound. You may resume your normal diet and activity unless your physician advises you differently.

Your physician may give you additional or alternate instructions after the procedure, depending on your particular situation. Your study will be reviewed by an imaging physician (*Radiologist*) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# Echocardiogram







Your doctor has requested an echocardiogram. There are many reasons why your doctor might refer you for an Echocardiogram. They include: Chest pain, Shortness of breath, Lack of stamina, Age, Obesity, Evaluate heart murmurs...and many more.

#### Who performs the examination?

As an Echocardiogram is a type of Ultrasound, a specialist ultrasound technician called a Sonographer will perform this examination.

### **Before Your Exam:**

There is no prep, although you will want to wear upper clothing that is easy to take off and put on as you will be required to remove your upper garments and put on a gown. Please leave necklaces at home.

### **During Your Exam:**

In most cases you will be required to remove any clothing from the waist up. The sonographer will apply electrodes to your chest for a tracing of your heart rate. The sonographer will apply a warm gel to your chest and pass an instrument called a transducer over the gel. Images of your heart and surrounding blood vessels should then appear on a screen in front of you showing live images of the blood flow through the heart and surrounding valves. When the sonographer is evaluating the valves you will hear distinct whooshing noises as the blood is flowing through the valves. Once the sonographer is satisfied that there are accurate images of all the relevant valves and arteries your examination is over.

Your exam will take approximately 45 minutes.

#### Is the examination painful or uncomfortable?

The technologist does have to apply some pressure in order to obtain optimal images. This should not be particularly painful but may cause some mild discomfort.

#### What does the echocardiogram show?

Echocardiograms can show if there is any blood clotting, restricted flow or excessive pressure on the heart valves and surrounding blood vessels. As echocardiograms are a type of ultrasound they show images in real time motion they can show the efficiency of the flow at the exact time of scanning. This can be used to create a measurement of the flow of blood through the major blood vessels entering and leaving the heart.

### After Your Exam:

Your study will be reviewed by an imaging physician (Radiologist, Cardiologist or Internalist) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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# Venous Doppler Ultrasound (Lower Extremity)









Your doctor has requested an ultrasound of your deep venous system. Venous doppler's are most commonly performed for leg pain, leg swelling, lumps, varicose veins and pulmonary embolism.

#### Who performs the examination?

Ultrasounds are performed by specialist staff called sonographers.

### **Before Your Exam:**

There is no prep for this exam (*although you may want to wear sweats or shorts, as your bottom clothing will have to be removed*)Under garments can be left on.

### **During Your Exam:**

The sonographer will ask you to lie down on a bed. The sonographer will apply warm gel to the skin of the affected leg and then gently press an instrument called a transducer across the gel on your leg. With this exam, the sonographer will always start in the groin area and work his/her way down your leg to behind your knee and occasionally will scan your ankle area also. To assess for a blood clot, the sonographer will have to squeeze on your leg below the area the transducer is imaging. You will hear whooshing noises as the sonographer is evaluating your blood flow. Once the sonographer is satisfied that the images are accurate the examination is over.

Your exam will take approximately 45 minutes.

#### What does the ultrasound show?

Venous Doppler ultrasounds can show blockages to blood flow known as blood clots, venous insufficiency know as reflux, narrowing of vessels (*which may be caused by plaque*), Baker's Cyst's (*fluid filled area behind knee*) and tumors and congenital malformations.

#### **After Your Exam:**

Your study will be reviewed by an imaging physician (Radiologist) and the results will be sent to your doctor. Your doctor will discuss these results with you and explain what they mean in relation to your health.

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