

Tilt Table Test

What Is a Tilt Table Test?

If you have had recurrent syncope (fainting spells), the tilt table test can help determine how your body responds to changes in position. During the test, you lie on a table that can be moved to a nearly upright position while your symptoms, heart rate, and blood pressure are continuously monitored.

What Causes Syncope?

Syncope is a sudden brief loss of consciousness, or fainting spell. Syncope results when the brain does not receive sufficient blood flow and oxygen.

The most common type of syncope, the "common faint," is termed vasovagal syncope. It is caused by a malfunction of the nerves that control the action of the heart and blood vessels. This malfunction causes the heart to slow down and the blood pressure to drop. As a result, the person loses consciousness.

Syncope may also be caused by heart disease, such as from an arrhythmia (abnormal heart rhythm) or a severely narrowed heart valve.

What Does the Tilt Table Test Show?

The tilt table test is designed to induce (bring on) syncope under controlled conditions. It is especially useful for diagnosing vasovagal syncope.

The upright position during the tilt table test causes blood to pool (collect) in the lower part of the body, especially the legs.

As a result of the tilt, less blood returns to the heart, less blood is available for the heart to pump, and the blood pressure tends to drop.

Normally, the nerves that control the function of the heart and blood vessels are able to maintain the blood pressure by increasing the heart rate and by tightening the blood vessels.

In people susceptible to vasovagal syncope, these nerves do not work properly. As a result, the heart rate slows down, the blood pressure drops, and the person loses consciousness. Once the person lies flat, normal flow is restored, and he or she regains consciousness.

Preparing for the Test

- Get specific instructions about the food you can have. Generally, you will be instructed not to eat or drink anything for 6 to 8 hours prior to the test. This will help prevent nausea, which may accompany the test.
- Make arrangements for someone to drive you home after the study-you probably won't be permitted to drive. Family members and friends can wait in an assigned area.
- Be sure to check with your doctor several days before your tilt table test. You may be asked to stop taking certain medications for 2 or 3 days before the study. This can help the doctor get more accurate test results.

- Bring a list of all the medications you are currently taking. It is important for the doctor to know their exact names and dosages.
- Before the test, you'll be given an explanation of the test and be asked to sign a consent form. Feel free to ask questions.
- An intravenous (IV) line will be inserted into a vein in your arm, to allow the injection of fluids and medications.
- Several electrodes (small sticky patches) will be placed on your chest to obtain an electrocardiogram (ECG or EKG), a recording of your heart's electrical activity.

What Happens During the Test?

During the test, you will be instructed to lay down on a special table, called a tilt table. The intravenous line is inserted in one arm, and a blood pressure cuff (or a similar device) is placed on the other arm. The ECG electrodes on your chest allow the doctor to monitor your heart rhythm. Safety straps are applied across your chest and legs.

Initially, you will lie flat on the tilt table. Then, the entire table is tilted so that your head is almost upright (60 to 80 degrees). You will be continuously monitored in the tilted position for up to 45 minutes and then returned to a flat position.

At this time, if the test is normal, or "negative," you may be given an adrenaline-like medication to help induce syncope. The drug may cause you to feel your heart pound. Following the medication, you will again be tilted for up to 45 minutes.

At any time during the test, you may get symptoms that you previously experienced when you fainted or nearly fainted. If this occurs, it is very important to notify the nurse and doctor who will be in the room with you throughout the procedure.

The test is considered abnormal, or "positive," if the tilting induces loss of consciousness accompanied by a low blood pressure and/or a slow heart rate.

A complete tilt table test, including preparation for the test, generally lasts from one to two hours.

After the Test

When the test is over, it may be wise to rest for a while. Have someone drive you home. Ask your doctor or nurse about taking any medications that you were told to skip before the test.

Is the Test Safe?

The tilt table test is generally safe. By design, the test may cause you to faint for a few moments. Should this happen, the table is returned quickly to a flat position and the test is stopped. Well-trained personnel are available to handle any emergency.

What Are the Benefits?

Because some causes of syncope are more serious than others, it is important to be able to determine its cause. Heart problems, such as an abnormal heart rhythm or a

severely narrowed heart valve, can be life threatening. Other causes, including vasovagal syncope, are generally less worrisome.

The tilt table test helps doctors determine whether or not you are susceptible to vasovagal syncope. The information gained from this test helps your doctor make an accurate diagnosis and develop a treatment plan that's best for you.

Your Test Results

The doctor conducting the test may be able to give you preliminary test results before you leave. Or, your own doctor will discuss the test results with you during a future office visit.