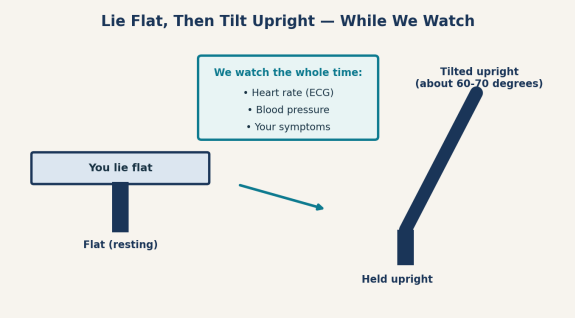
Understanding the Tilt Table Test

A safe, watched test to find out why you faint or feel lightheaded

We tilt you upright and watch your heart rate and blood pressure — to see what makes you faint.



Online: https://go.riasalimd.com/tilt-table-guide

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Names & Terms You Will Hear

Term	Meaning
Tilt table test	A test that safely tries to bring on your symptoms. You are strapped flat on a motorized table, then tilted upright while your heart rate and blood pressure are watched.
Head-up tilt test (HUT)	Another name for the same test. 'Head-up' just means the table tilts you so your head is up and your feet are down.
Syncope	The medical word for fainting — blood flow to the brain drops for a moment, so you briefly pass out, then wake up on your own.
Vasovagal (reflex) syncope	The most common and most harmless cause of fainting. A nerve reflex over-fires, so the heart slows and vessels widen and blood pressure drops.
Orthostatic hypotension	Blood pressure drops when you stand up. The tilt test can show this. See our Orthostatic Hypotension guide.
POTS	Postural orthostatic tachycardia syndrome — the heart rate jumps a lot on standing, but blood pressure does not drop. See our POTS guide.
Provocation (provoked phase)	If lying still and tilting do not bring on a response, a medicine like nitroglycerin or isoproterenol may be given to nudge one out safely.
Vasodepressor / cardioinhibitory / mixed	The three result patterns of a vasovagal faint — mainly a blood-pressure drop, mainly a heart-rate drop, or a mix of both.

What a positive test feels like: you may feel warm, dizzy, sweaty, or your vision may gray out, and you may briefly pass out. **This is expected.** Staff are right beside you and lower the table flat at once, which brings you back within seconds. The whole test is monitored and safe.

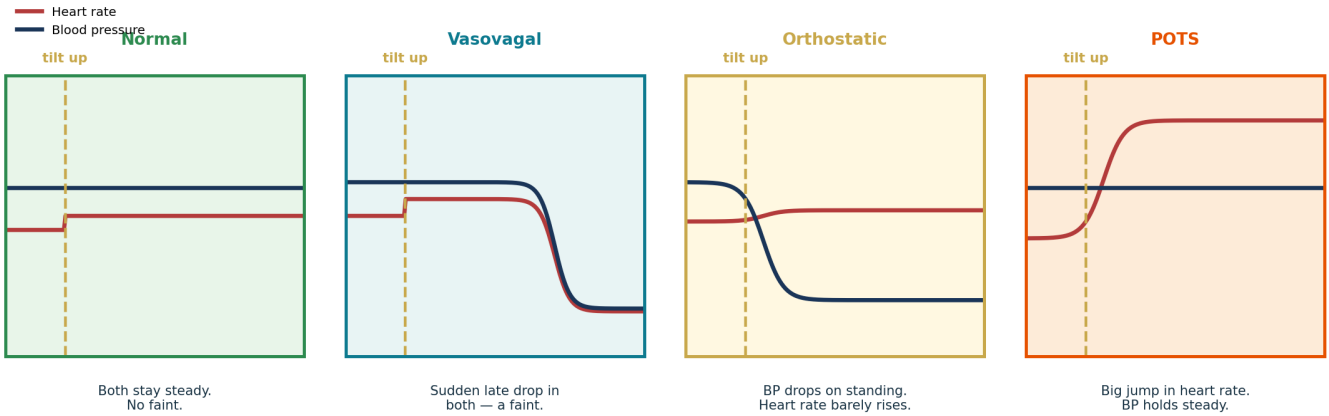
What Is the Tilt Table Test?

- A tilt table test helps find the cause of fainting (syncope) or lightheadedness — especially when it happens after standing up.
- You lie flat, strapped safely on a motorized table. The table then tilts you upright to about 60-70 degrees and holds you there.
- While you are upright, your heart rate and blood pressure are watched closely for a set time — often 20 to 45 minutes.
- The test is looking for a drop in blood pressure or heart rate that brings back your usual symptoms. That tells us the cause.
- Standing still is the stress. Lying down, your body works less to keep blood pressure up. Upright, gravity pulls blood to your legs — the same stress that triggers your faints.
- Sometimes a medicine (nitroglycerin under the tongue, or isoproterenol in the IV) is given to safely provoke a response if nothing happens on its own.
- It is a diagnostic test, not a treatment. The goal is an answer — what makes you faint — so the right plan can follow.

The phases of a tilt-table test. First you are set up and rested flat to get a baseline. Then the table tilts you upright and holds you still. If nothing happens, a medicine may be given to safely provoke a response.

Why It Matters

- Fainting is common, but the cause is not always clear from the story alone. The tilt test can reproduce your symptoms in a safe, watched setting and show what is behind them.
- It tells three look-alike problems apart: vasovagal (reflex) syncope, orthostatic hypotension, and POTS. Each one is managed differently.
- Seeing a faint happen is powerful. When the test brings on your usual symptoms, both you and your doctor know exactly what to treat.
- It can spare you guesswork. A clear pattern points straight to a plan — fluids and salt, counterpressure moves, medication changes, or further heart tests.
- It is one piece, not the whole answer. The test works alongside your history, an ECG, and heart monitors — never on its own.



What the test is looking for. A normal response holds steady. A vasovagal faint shows a sudden late drop in both. Orthostatic hypotension shows blood pressure falling on standing. POTS shows a big heart-rate jump with the blood pressure holding.

Treatment Options

- Before the test: you will usually be asked not to eat for a few hours (often 2-4 hours), so an empty stomach lowers the small chance of nausea.
- Medication instructions matter. Your doctor may ask you to hold certain heart or blood-pressure medicines beforehand. Never stop a medicine on your own — follow the exact instructions you are given.
- Bring a list of your medicines and arrange a ride home, in case you feel washed out after a faint.
- During the test: you lie flat, soft straps hold you safely, a small IV line is placed, and ECG pads and a blood-pressure cuff are attached.
- You rest flat for a few minutes to get a baseline, then the table tilts you upright and holds you still while everything is watched.
- If nothing happens, a provoking medicine may be given, and the watching continues.
- After the test: you are returned to flat right away if you faint, then rested until you feel steady. Most people go home the same day and back to normal activity, unless told otherwise.

What the Result Pattern Means — and the Usual Next Steps

Pattern on the table	What it points to	Typical next steps
Both heart rate and blood pressure stay steady; no symptoms	Normal response — no reflex or blood-pressure cause found today	Reassurance; the cause may need a monitor or loop recorder if faints continue
Sudden late drop in blood pressure and/or heart rate, with your usual faint	Vasovagal (reflex) syncope	Fluids and salt, counterpressure moves, trigger avoidance; medicine in some cases
Blood pressure falls within ~3 minutes of tilt; heart rate barely rises	Orthostatic hypotension	Review medicines, fluids and salt, slow position changes; treat the cause
Heart rate jumps 30+ bpm (40+ if a teen) without a blood-pressure drop	POTS (postural orthostatic tachycardia syndrome)	Fluids and salt, lower-body exercise, compression; medicines if needed

Risks, Benefits, and Alternatives

Every choice has trade-offs. Use this table to start the shared decision conversation.

Option	Risks	Benefits	Alternatives
Having the tilt-table test	You may feel faint or briefly pass out — that is often the point, and staff lower you flat at once. Mild nausea, sweating, or a headache from the medicine can occur. Serious problems are very rare.	Can reproduce your symptoms in a safe, monitored setting and show the exact pattern behind them — telling vasovagal, orthostatic, and POTS apart so the right plan can start.	Active stand test (a simpler bedside check). Heart rhythm monitor or loop recorder (catches the real event over weeks to years). Skipping it when the story is already clear.
The provoked phase (medicine)	Nitroglycerin can cause a brief headache or flushing; isoproterenol can cause a racing or pounding heartbeat. Both wear off quickly and are closely watched.	Raises the chance the test brings out a true vasovagal response when the passive phase alone is negative, so fewer tests come back falsely normal.	A longer passive (drug-free) tilt. A heart monitor or loop recorder instead, to catch the event in daily life.
Doing the test versus monitoring	A tilt test can miss the cause (a negative test does not rule out fainting). A monitor takes longer to give an answer and needs an event to happen.	The tilt test gives a same-day answer for reflex and blood-pressure causes; a loop recorder is better when faints are rare and a rhythm cause is suspected.	An implantable loop recorder for rare, unexplained faints. See our Loop Recorder guide.

Common Misconceptions

Myth	Reality
A tilt-table test is dangerous because it makes me faint.	Making you faint, in a controlled way, is sometimes the goal. You are strapped in, watched the whole time, and lowered flat the instant you feel faint. Serious problems are very rare.
If my tilt-table test is normal, I will never faint again.	Not true. A negative test does not rule out fainting. The test can miss the cause, especially if your faints are rare. It is one piece alongside your history, an ECG, and monitors.
The tilt-table test is the best test for fainting.	It is useful, but not the single best test. A careful history, an ECG, and — for rare repeat faints — a heart monitor or loop recorder are often more useful. The tilt test is chosen when a reflex or blood-pressure cause is likely.
If I get the medicine, the result does not really count.	It still counts. The provoked phase is a standard, well-studied part of the test. It safely nudges out a response your body would have had to a strong enough trigger in real life.
The test will hurt.	It should not hurt. You lie still on a padded table. The only pinch is the small IV line. The discomfort people remember is the faint feeling itself — which passes quickly once you are flat.
I have to stay overnight for a tilt-table test.	Almost always no. The test usually takes one to two hours, and most people go home the same day and return to normal activity unless told otherwise.

Possible Complications

Knowing what can go wrong helps you spot problems early. Most complications are uncommon, especially with treatment.

Where / What	What Can Happen
Feeling faint or passing out	Expected, and often the goal of the test. You are watched and lowered flat right away, which brings you back quickly. This is monitored and safe.
Nausea, sweating, or a headache	Common and short-lived, especially around a faint or after the nitroglycerin. They pass once you are flat and resting.
A racing or pounding heartbeat	Can happen with the isoproterenol medicine. It is closely watched and settles quickly when the medicine is stopped.
A longer-lasting slow heart rate or low blood pressure	Uncommon. The team watches for it and can place you flat, give fluids through the IV, or give medicine if needed.
A falsely normal result	The test can miss the cause — a negative test does not rule out fainting. This is why it is paired with your history, an ECG, and sometimes a longer monitor.
Very rare serious events	Dangerous rhythms or a prolonged faint are very rare. The test is done with a doctor or trained staff and rescue equipment on hand.

What It Diagnoses 1: Vasovagal (Reflex) Syncope

- The most common and most harmless cause of fainting. A nerve reflex over-fires.
- On the table, blood pressure and/or heart rate suddenly drop — usually late in the test — and bring back your usual faint feeling.
- The result is sorted into three types: mainly a blood-pressure drop (vasodepressor), mainly a heart-rate drop (cardioinhibitory), or a mix of both.
- Triggers in real life are classic: long standing, heat, pain, the sight of blood, or strong emotion — and there is usually a warning first.
- Plan: fluids and salt, counterpressure moves, and avoiding triggers usually work. See our Vasovagal Syncope guide.

What It Diagnoses 2: Orthostatic Hypotension

- Blood pressure drops when you stand — on the tilt test, it falls soon after the table goes upright (within about 3 minutes).
- The heart rate often fails to rise enough to make up for it, so the brain briefly gets less blood.
- Common with dehydration, blood-pressure or prostate medicines, older age, and some nerve conditions.
- Plan: review your medicines, raise fluid and salt intake, change position slowly, and treat the underlying cause. See our Orthostatic Hypotension guide.

What It Diagnoses 3: POTS

- POTS = postural orthostatic tachycardia syndrome. On standing, the heart rate jumps a lot — but blood pressure does not drop.
- The marker is a sustained heart-rate rise of 30 beats per minute or more (40 or more in teens) within 10 minutes of being upright, without orthostatic hypotension.
- Symptoms include a pounding or racing heart, lightheadedness, brain fog, and tiredness when upright — often relieved by lying down.
- Plan: fluids and salt, lower-body and reclined exercise, compression garments, and medicines in some cases. See our POTS guide.

Points to Know

If you remember nothing else, remember these key points.

- A tilt-table test finds out why you faint by tilting you upright and watching your heart rate and blood pressure.
- You are strapped in safely and watched the whole time. If you faint, staff lower you flat at once — it is monitored and safe.
- The test tells three look-alike causes apart: vasovagal syncope, orthostatic hypotension, and POTS.
- A medicine (nitroglycerin or isoproterenol) may be given to safely provoke a response if nothing happens on its own.
- Before the test: do not eat for a few hours and follow your exact medication instructions. Never stop a medicine on your own.
- A positive test may make you feel faint or briefly pass out. That feeling passes fast once you are flat again.
- A negative test does not fully rule out fainting. It is one piece alongside your history, an ECG, and monitors.

The honest limit: a **negative (normal) tilt test does not rule out fainting.** The test can miss the cause, especially when faints are rare. It is one piece of the picture — read alongside your history, your ECG, and a heart monitor or loop recorder when needed.

When to Call Us - and When to Call 911

If you are not sure, call. We would rather hear from you twice than miss a real problem.

- Fainting that comes with chest pain, shortness of breath, or a racing heart — call 911.
- Fainting during exercise or while lying down, or with no warning at all — call us today; these point away from a simple reflex faint.
- An injury from a faint — call 911 for a head injury or hard fall; otherwise call us.
- Questions about which medicines to hold before your tilt test — call us before the test; never stop a medicine on your own.
- Lasting lightheadedness, a pounding heart, or repeated near-faints after your test — call us this week.
- You faint again after a normal tilt test — call us; a normal test does not rule out fainting and we may add a monitor.
- Questions about driving after a faint — call before getting back behind the wheel.

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Related guides: Syncope Workup and Testing | Vasovagal Syncope | Orthostatic Hypotension | POTS | Implantable Loop Recorder

Trusted Resources

The links below are the trusted resources Dr. Ali used to write this guide and that he recommends you visit for more information. Each is a clickable link in the digital version and a Short.io tracked URL on the printed version.

- Cleveland Clinic — Tilt Table Test - Patient-friendly overview of why the test is done and what the results mean.
- Mayo Clinic — Tilt Table Test - How to prepare, the phases of the test, and how results tell the causes apart.
- Johns Hopkins Medicine — Tilt Table Test - Step-by-step description of the procedure and monitoring.
- MedlinePlus — Tilt Table Test - NIH/NLM overview of what to expect and normal versus abnormal responses.

Sources Used to Build This Guide

Every recommendation in this guide is grounded in one or more of the studies, guidelines, or trusted resources below. Short links are tracked so Dr. Ali can see which references patients are reading; nothing personally identifying is captured.

- Cleveland Clinic — Tilt Table Test *[Patient Education]*
  Plain-language overview of why the test is done for unexplained fainting, how the table is tilted, and what blood-pressure and heart-rate changes mean.
- Mayo Clinic — Tilt Table Test *[Patient Education]*
  Describes preparation, the passive and medicine-provoked phases, and how results tell vasovagal syncope, orthostatic hypotension, and POTS apart.
- MedlinePlus — Tilt Table Test *[Patient Education]*
  NIH/NLM overview of indications, what to expect, and normal versus abnormal responses.
- Johns Hopkins Medicine — Tilt Table Test *[Patient Education]*
  Patient-facing description of the procedure steps, straps, IV line, and monitoring used during the test.
- British Heart Foundation — Tilt Table Test *[Patient Education]*
  Concise patient explanation of why the table is tilted, how long it lasts, and what a positive faint during the test shows.
- 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope *[Guideline]*
  Authoritative basis for when tilt-table testing is appropriate in the syncope workup (Class IIa for suspected vasovagal syncope) and how results inform diagnosis.
- 2018 ESC Guidelines for the Diagnosis and Management of Syncope *[Guideline]*
  European framework for tilt-table testing, including the role of provoked (nitroglycerin/isoproterenol) phases and interpretation of vasodepressor, cardioinhibitory, and mixed responses.
- EFAS/AAS/EAN Consensus — Tilt Table Testing and Provocative Autonomic Tests *[Guideline]*
  Consensus methodology for tilt-table protocol — supine rest, 60-70 degree passive phase, and drug-provoked phase — and the criteria for orthostatic hypotension and POTS.
- Tilt Table Test — StatPearls (NCBI Bookshelf) *[Reference]*
  Clinician reference for indications, contraindications, protocol durations, and the sensitivity range of tilt-table testing.
- American Heart Association — Syncope (Fainting) *[Patient Education]*
  AHA overview of fainting and where tilt-table testing fits in the broader diagnostic approach.

About This Guide

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Reviewer note: Reviewed against Cleveland Clinic, Mayo Clinic, and Johns Hopkins tilt-table pages. Ours adds: a flat-to-tilted setup diagram with what is monitored, a phase-by-phase timeline (rest, tilt, optional medicine), a four-panel chart of the heart-rate and blood-pressure patterns (normal vs vasovagal vs orthostatic vs POTS), a tinted result-pattern table tied to next steps, and an honest note on the test's limits.

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