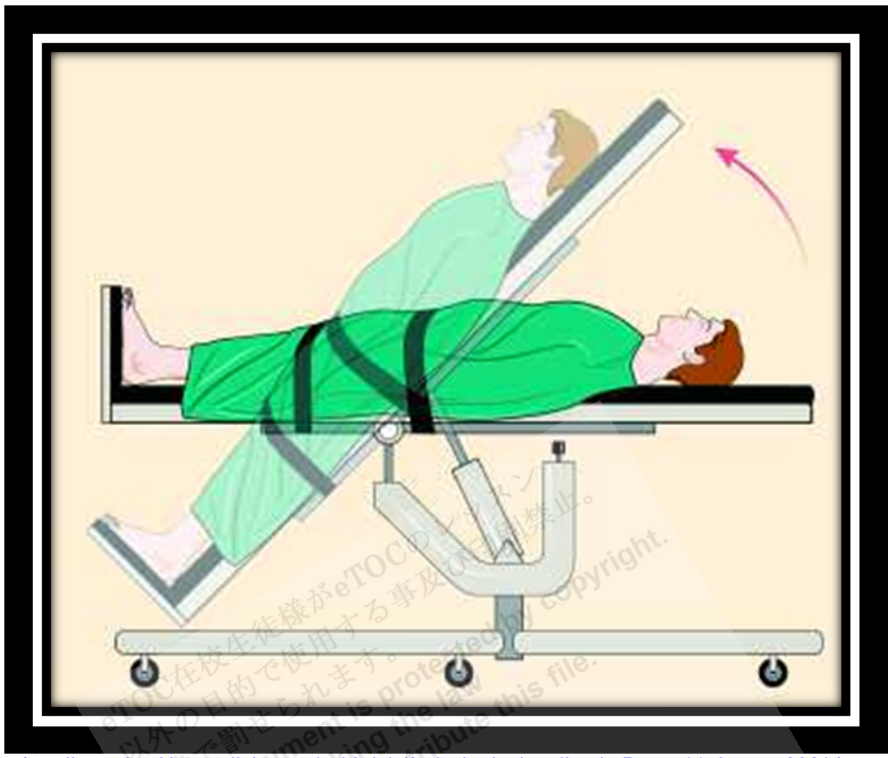
Tilt Table Testing



http://www.hopkinsmedicine.org/sebin/x/c/Arrhythmia_handbook_Page_11_Image_0001.jpg

Tilt table testing is used to evaluate syncope in younger, apparently healthy patients and, when cardiac and other tests have not provided a diagnosis, in elderly patients. Tilt table testing produces **maximal venous pooling**, which can trigger **vasovagal** (**neurocardiogenic**) **syncope** and reproduce the symptoms and signs that accompany it (**nausea**, **light-headedness**, **pallor**, **hypotension**, **bradycardia**).

After an overnight fast, a patient is placed on a **motorized table** with a foot board at one end and is held in place by a single strap over the stomach; an IV line is inserted. After the patient remains supine for 15 min, the table is tilted nearly upright to 60 to 80° for 45 min. If vasovagal symptoms develop, vasovagal syncope is confirmed. If they do not occur, a drug (eg,isoproterenol) may be given to induce them. Sensitivity varies from 30 to 80% depending on the protocol used. The false-positive rate is 10 to 15%.

With vasovagal syncope, heart rate and BP usually decrease. Some patients have only a decrease in heart rate (**cardioinhibitory**); others have only a decrease in BP (**vasodepressor**). Other responses include a gradual decrease in systolic and diastolic BP with little change in heart rate (**dysautonomic pattern**), significant increase in heart rate (> 30 beats/min) with little change in BP (**postural orthostatic tachycardia**

syndrome), and report of syncope with no **hemodynamic changes** (**psychogenic syncope**).

Relative contraindications include severe aortic or mitral stenosis, hypertrophic cardiomyopathy, and severe coronary artery disease (CAD). In particular, isoproterenol should not be used in patients with hypertrophic cardiomyopathy or severe CAD.

Reference: http://www.merckmanuals.com