

Laboratory Tests Baseline laboratory blood tests are rarely helpful in identifying the cause of syncope. Blood tests should be performed when specific disorders, e.g., myocardial infarction, anemia, and secondary autonomic failure, are suspected ([Table 21-2](#)).

Autonomic Nervous System Testing (Chap. 440) Autonomic testing, including tilt-table testing, can be performed in specialized centers. Autonomic testing is helpful to uncover objective evidence of autonomic failure and also to demonstrate a predisposition to neurally mediated syncope. Autonomic testing includes assessments of parasympathetic autonomic nervous system function (e.g., heart rate variability to deep respiration and a Valsalva maneuver), sympathetic cholinergic function (e.g., thermoregulatory sweat response and quantitative sudomotor axon reflex test), and sympathetic adrenergic function (e.g., blood pressure response to a Valsalva maneuver and a tilt-table test with beat-to-beat blood pressure measurement). The hemodynamic abnormalities demonstrated on the tilt-table test ([Figs. 21-3 and 21-4](#)) may be useful in distinguishing orthostatic hypotension due to autonomic failure from the hypotensive bradycardic response of neurally mediated syncope. Similarly, the tilt-table test may help identify patients with syncope due to immediate or delayed orthostatic hypotension.

Carotid sinus massage should be considered in patients with symptoms suggestive of carotid sinus syncope and in patients >40 years with recurrent syncope of unknown etiology. This test should only be carried out under continuous ECG and blood pressure monitoring and should be avoided in patients with carotid bruits, possible or known plaques, or stenosis.

Cardiac Evaluation ECG monitoring is indicated for patients with a high pretest probability of arrhythmia causing syncope. Patients should be monitored in the hospital if the likelihood of a life-threatening arrhythmia is high, e.g., patients with severe coronary artery or structural heart disease, nonsustained ventricular tachycardia, supraventricular tachycardia, paroxysmal atrial fibrillation, trifascicular heart block, prolonged QT interval, Brugada