

DYSAUTONOMIA INTERNATIONAL



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Summary of Syncopal Disorders

Syncope is the formal medical term for fainting, describing a temporary loss of consciousness due to a sudden decline in blood flow to the brain.¹¹ Syncope can be caused by numerous things. Some forms of syncope are fairly benign, while other forms can indicate serious health problems. After a syncopal episode, an individual may be temporarily unconscious, but will revive and slowly return to normal. Syncope can occur in otherwise healthy people and affects all age groups, but occurs more often in the elderly.¹¹

Syncope accounts for approximately 3% of ER visits and 6% of hospital admissions.¹ It is important to distinguish syncope from "dizziness" or "pre-syncope," which generally refers to an alteration in balance, vision, or perception of the environment, without the loss of consciousness.^{1,6,9}

Types of Syncope

Neurally Mediated Syncope (NMS): previously called Neurocardiogenic Syncope (NCS) and Neurally Mediated Hypotension (NMH),⁹ is a chronic condition characterized by peripheral vasodilation (blood pooling in the extremities), a decrease in blood pressure, and a slow or lowered heart rate upon standing.^{1,2,6} The low blood pressure leads to syncope if it is severe enough, or to lightheadedness (pre-syncope) if less severe or if the patient is lying down. There is general agreement amongst medical experts that these symptoms are due to changes in heart rate and blood pressure.^{6,7,8,9}

Reflex Syncope is sometimes known as "the common faint" because it is fairly common. It can occur for a variety of reasons, usually termed "trigger events." Estimates of isolated fainting episodes range from 15-25% in young people.^{1,2,6,8} Approximately 25% of elderly people faint, which may relate to use of medications or to physiological changes. Thus, the overall lifetime incidence of fainting can approach 50%.⁸

Reflex Syncope includes the following:

Vasovagal Syncope: trigger events can include: emotional stress, trauma, the sight of blood or needles, prolonged standing, and sudden fear.

Carotid Sinus Syncope: occurs because of constriction of the carotid artery in the neck and can occur after turning the head, while shaving, or when wearing a tight collar.^{10,11}

Situational Syncope: occurs during or immediately after urination, defecation, coughing, laughing, or as a result of gastrointestinal stimulation.^{6,10,11}

Cardiac Syncope/Heart-Rhythm Disorders may cause syncope if the heart rate is too slow or too

fast, but variable.^{10,11} Occasionally, heart-rhythm problems cause syncope in otherwise healthy people, but individuals with underlying heart disease (such as a previous heart attack or heart valve disease) are at greater risk.^{10,11} Cardiac syncope is often quite serious. The first step in evaluating syncope is to evaluate the patient for possible cardiac syncope.¹²

Causes of cardiac syncope may include:

Long QT syndrome: an electrical heart abnormality that can produce dangerous arrhythmias.

Arrhythmogenic right ventricular dysplasia (ARVD): a rare form of cardiomyopathy in which the heart muscle of the right ventricle (RV) is replaced by fat and/or fibrous tissue. The right ventricle is dilated and contracts poorly. As a result, the ability of the heart to pump blood is usually weakened.

Cardiomyopathies: diseases of the heart muscle.

Left Ventricular Outflow Obstruction: encompass a series of stenotic lesions starting in the anatomic left ventricular outflow tract and stretching to the descending portion of the aortic arch.

Myocardial Infarction: a heart attack.

Primary Pulmonary Hypertension: a rare disease characterized by elevated pulmonary artery pressure with no apparent cause.

Heart Arrhythmias such as ventricular tachycardia (fast heart rate), bradyarrhythmias (very slow heart rate) and related arrhythmic events.¹²

Testing and Treatment

The diagnosis of syncope often focuses on ruling out potentially serious causes of syncope, particularly heart-related problems.^{1,2,6} Tests may include:^{1,2,6,8}

- Extensive medical history
- Electrocardiogram (EKG)
- Orthostatic vitals obtained
- Echocardiogram (ECG)
- Cardiac exercise stress test
- Various blood tests
- Tilt table test to measure blood pressure with changes in posture

Medications and treatment include:^{1,2,3,5,6}

- Avoiding syncope triggers
- Increasing salt and fluid intake
- Compression stockings and garments
- Mild aerobic conditioning, especially in the water
- Medications may include beta-blockers, fludrocortisone, SSRIs, midodrine, disopyramide and yohimbine

Prognosis

The prognosis for syncope patients depends on which type of syncope they have. Patients and caregivers must be educated on what to do during a syncopal attack and how to minimize the chance of injury during a syncopal episode. In most cases, the patient should be gently placed in a reclined position, and if possible, the feet should be elevated. Consult with a doctor on what to do during or

after a syncopal episode, based on the type of syncope you or your loved one has been diagnosed with. Most patients will improve with proper education on the avoidance of triggers, supplementary hydration, and in some cases, medication.^{2,3,8,11}

Sources

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