

# *Syncope*

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- = sudden transient loss of consciousness (due to cessation of cerebral blood flow) and postural tone with spontaneous recovery.
- may be warning sign of sudden death
- syncope of unknown etiology or noncardiac causes → benign prognosis. Syncope of cardiac causes → 30% mortality at 1 year

# *(I) Vascular causes of syncope*

= vasovagal syncope

- most common, about 1/3

## 1. Orthostatic hypotension:-

- systolic blood pressure decrease > 20 mmHg or diastolic pressure decrease > 10 mmHg within 3 minutes of standing
- due to defect in following blood pressure control system:

standing → abrupt decrease venous return to heart  
→ decreased cardiac output → stimulation of aortic, carotid, cardiopulmonary baroreceptors → reflex increase sympathetic outflow → increase heart rate, contractility and vascular resistance to maintain blood pressure

- **Symptoms** = lightheadedness, dizziness, blur vision, weakness, palpitation, syncope etc
- **Causes** = drugs that cause volume depletion or vasodilatation. Primary autonomic causes: idiopathic. Secondary autonomic failures eg. aging, autoimmune disease, diabetes mellutis, renal failure

## **2. Reflex-mediated syncope (=situational syncope):-**

eg. micturition syncope, cough syncope, carotid sinus hypersensitivity

- due to situational increase vagal tone and decrease sympathetic tone → bradycardia, vasodilation, hypotension, syncope

## ***(II) cardiac causes of syncope***

- second most common, 10-20%
- due to arrhythmias (most common); or
- anatomical causes eg. obstructive valvular heart disease, aortic dissection, pericardial disease, tamponade, hypertrophic cardiomyopathy, myocardial infarction, pulmonary embolism etc.

## ***(III) Neurological causes of syncope (uncommon, <10%)***

eg. migraines, seizures, transient ischemic attack

## ***(IV) Metabolic causes of syncope (rare, <5%)***

eg. hypoglycemia, hypoxia, hyperventilation