

SYNCOPE IN CHILDREN: #SADSweek2021

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#EM3



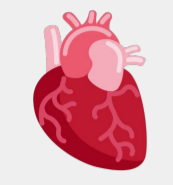
Syncope is a transient and sudden loss of consciousness associated with loss of postural tone and spontaneous recovery



It's common... about 15% of children experience a syncopal episode



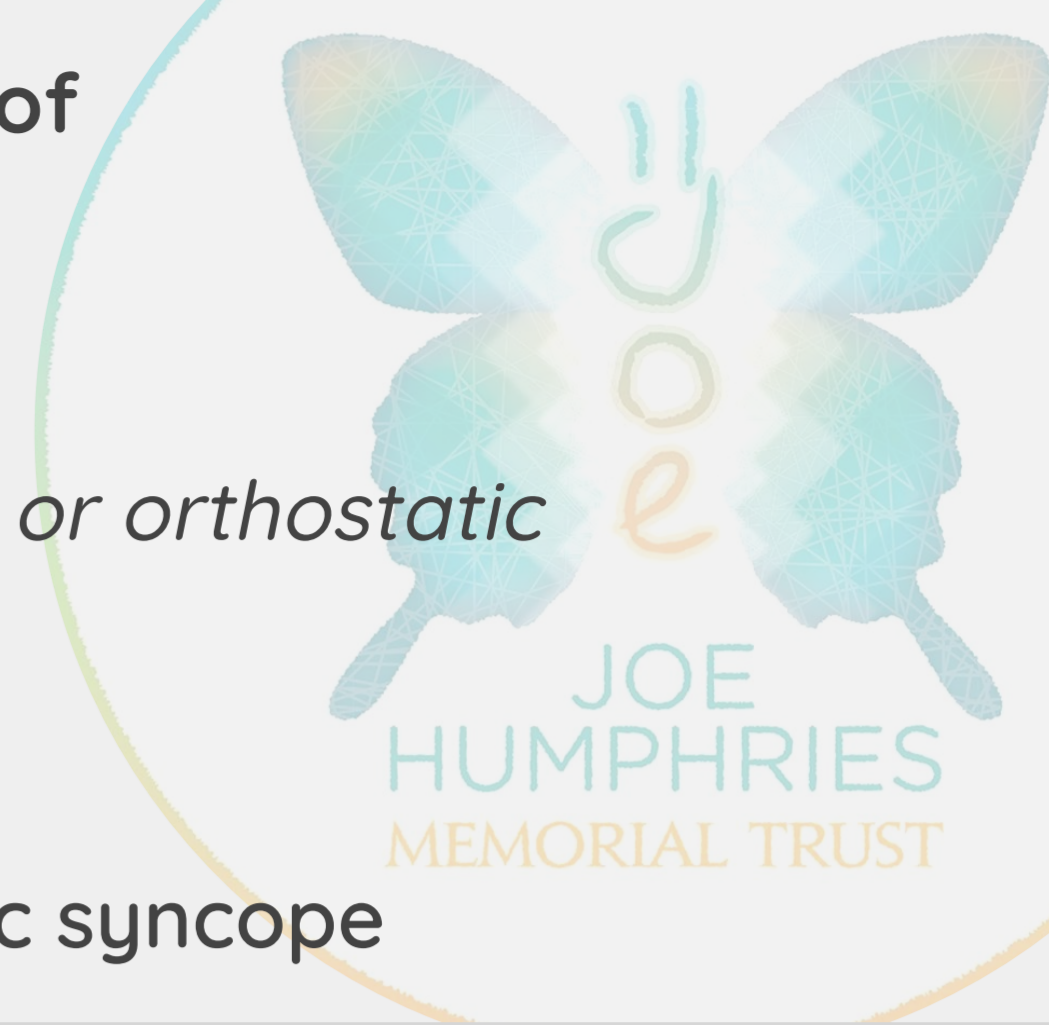
Most syncope in children is benign and has an autonomic cause, *i.e.* vasovagal or orthostatic



Syncope can also be caused by life-threatening cardiac conditions such as Arrhythmias, structural abnormalities and channelopathies



Neurological conditions such as hypoglycemia, seizure and migraine can mimic syncope

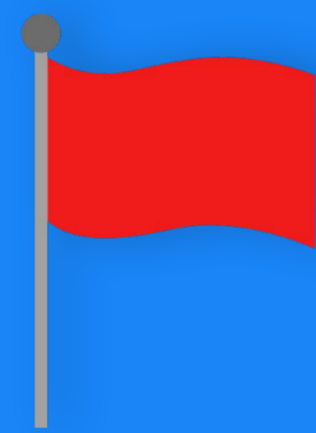


PATIENT HISTORY

- **PRE-EVENT:** Precipitating situation? On exercise? Preceding symptoms? Laid down or kept sitting?
- **DURING:** Incontinence? Tonic-clonic movements for seconds or longer? Colour? Deeply unresponsive?
- **POST-EVENT:** Confusion?

RED FLAGS FOR CARDIAC SYNCOPE

- Very sudden onset, flaccid, pale, unresponsive at all
- Palpitations/chest pain
- Occurred during sitting, exercise or when startled (CPVT)
- Family Hx of sudden young death



INVESTIGATIONS

On all children with syncope:

- ECG and blood pressure
- Blood sugar
- Consider pregnancy test

Resting ECG may be normal

ECG patterns to look for in SADS



QTC over 440?

Consider:

Long QT Syndrome



ST abnormal V1-3?

Saddleback?

Consider: **Brugada**



Dagger-like Q waves in lateral leads?

Consider:

Hypertrophic Cardiomyopathy



Small positive deflection at end of QRS complex? (Epsilon wave) Consider:

Arrhythmogenic Right Ventricular Dysplasia



Visible delta wave?

Broad QRS? Consider

Wolff-Parkinson White

REMEMBER!

Consider an arrhythmia in all children presenting with syncope

Most paediatric syncope is vasovagal

A THOROUGH HISTORY IS VITAL FOR DETERMINING CAUSE AND GUIDING FURTHER ASSESSMENT