

## Syncope in the Young (also known as Reflex Anoxic Seizures (RAS))

### What is Syncope in the young?

"Syncope in the young is the term used for a particular fit which is neither epileptic nor due to cyanotic breath-holding, but which rather results from a brief stoppage of the heart through excessive activity of the vagus nerve. Syncope (sin-co-pee) is derived from the Greek word to 'cut off'. Syncope is the result of the temporary cutting off of the supply of oxygenated blood to the brain. The mechanism of syncope in susceptible individuals includes reflex cardiac standstill (always reversible) commonly following an unexpected bump to the head or elsewhere. Associated marked pallor of the skin has led to these attacks being called Pallid Syncope. In more recent times these attacks have been referred to as Reflex Asystolic Syncope."

*Founder Patron: Professor J B P Stephenson*

### Symptoms

Reflex Asystolic Syncope (RAS) occurs mainly in young children but can occur at any age. Any unexpected stimulus, such as pain, shock or fright causes the heart and breathing to stop, the eyes to roll up into the head, the complexion to become deathly white, often blue around the mouth and under the eyes, the jaw to clench and the body to stiffen; sometimes the arms and legs jerk. After what seems like hours, but is probably less than 30 seconds, the body relaxes, the heart starts beating (sometimes very slowly initially) and the sufferer is unconscious. One or two minutes later the person may regain consciousness but can sometimes be unconscious for over an hour. Upon recovery the person may be very emotional and then fall into a deep sleep for two to three hours and look extremely pale with dark circles under the eyes.

Syncope attacks may occur several times per day/week/month. The attacks appear to come in batches.

### Diagnosis

A good description by a witness, keeping a diary of events and consulting a doctor who is fully aware of the condition and takes a detailed history will lead to a correct diagnosis. Every patient who suffers a loss of consciousness should be given a 12-lead EKG.

- **12-lead Electrocardiogram (EKG)** for heart rhythm analysis.

The following tests are sometimes also used to help doctors make a diagnosis.

- **Heart Rhythm Monitor** to record heart rhythms while away from hospital.
- **Implantable Loop Recorder (ILR)** is used to monitor heart rhythms for months at a time if the episodes are less frequent than every 30 days. The device can remain in place for up to three years.
- **Tilt Table Test** to induce an attack while connected to heart and blood pressure monitors. This test is not usually done before the age of seven.
- **Electroencephalogram (EEG)** for brain activity analysis.



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### Misdiagnosis of Syncope in the Young

The symptoms of syncope in the young share common factors with a number of conditions, with the result that it is often misdiagnosed as temper tantrums, cyanotic breath holding (prolonged expiratory apnoea) or epilepsy.

#### Immediate action in the event of a syncopal attack:

Everyone who has responsibility for a person with syncope must know what to do in the event of an attack.

1. Ensure the individual is lying flat in a safe environment and that nothing is blocking their airway.
2. Lightly lay your hand on the child's back and talk reassuringly as it is known that the individual can sometimes hear but is unable to answer. Comfort upon recovery. Allow to sleep if necessary.
3. It is not necessary to call a doctor. However, if the person has had a particularly nasty bump then it may be wise to seek medical advice.



### Syncope in the Young is also known as:

- Reflex Asystolic Syncope (RAS)
- Reflex Anoxic Seizures (RAS)
- Vaso-Vagal Syncope (VVS)
- Reflex Syncope
- Neurally Mediated Syncope (NMS)
- Pallid Syncope
- Stephenson's syndrome
- Vagal cardio-inhibitory fainting fit
- White breath-holding attacks

Approved by: STARS International Medical Advisory Committee



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