

## What Every Doctor Should Know about Postural Orthostatic Tachycardia Syndrome (POTS)

POTS, a common form of dysautonomia, is an invisible illness that largely affects women between the ages of 15 and 50, and is estimated to affect 1% of teenagers. POTS can be triggered by pregnancy, major surgery, trauma, or a viral infection like mononucleosis or Lyme disease.

**POTS Symptoms:** Due to autonomic nervous system disruption, a wide variety of symptoms are often present that span multiple organ systems.

- Orthostatic intolerance
- Dizziness
- Lightheadedness
- Headaches/Migraines
- Cognitive impairments
- Sleep abnormalities
- Neuropathic pain
- Fatigue
- Blood pooling in the extremities
- Light sensitivity in the eyes
- Abdominal pain
- Gastroparesis
- Rapid gastric emptying
- Hypersensitivity of the skin

**Poor Man's Tilt Table Test:** Take pulse and blood pressure in supine position after 5 minutes. Have patient stand for 2-5 minutes and repeat pulse and blood pressure.

- Adults: an increase in heart rate of 30 beats per minute or more may indicate POTS.
- Children: an increase in heart rate by 40 beats per minute or more may indicate POTS.
- Blood pressure: in many POTS patients, blood pressure will decrease by 20/10 mmHg.

**Confirmation:** Refer your patient to an autonomic specialist to have a tilt table test and quantitative sudomotor autonomic reflex testing (QSART) or other autonomic testing.

**Exercise Protocol for POTS:** Dr. Levine's team provides a free POTS specific exercise protocol to healthcare practitioners. Please contact them to request one for your patient.

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**Medications:** Increase daily salt (2-10 g) and water (2-4 L) is the first step. Florinef can increase salt retention. Other medications might include anticonvulsants for pain, stimulants for brain fog/fatigue, beta blockers to regulate heart rate, and adrenergic antagonists to decrease sympathetic tone. Many patients improve with intravenous saline to increase blood volume.

**Prognosis:** The long term prognosis varies based on the underlying cause and overall severity of symptoms. POTS doesn't simply go away, and most teens don't outgrow this disorder. In fact, only 20% of teens made a full recovery within 10 years. Only 50% of people who develop POTS after a viral infection recover in five years, while those with the primary hyperadrenergic form will require lifelong treatment. For individuals with POTS secondary to another illness, treatment of the underlying disorder is critical in order to control POTS symptoms. Compassionate, continuing care is critical to achieve a decent quality of life for these chronically ill patients.