

### What is it?

POTS is defined by excessive heart rate upon upright posture. Students with POTS exhibit not only this increase in heart rate when standing, but also numerous symptoms of the autonomic nervous system. Symptoms seem to be caused by an imbalance of the autonomic nervous system's control of blood flow. Students, especially teenagers, develop the disorder during their years of rapid growth. Research also shows that POTS can occur after a virus or extreme stressors such as trauma, surgery, or even chemotherapy.

- Rare under the age of 10
- Most common in ages 12-50
- 1 in 100 teens affected
- Can often run in the family
- Roughly 4:1 female to male ratio
- There are several classification of POTS; identified as primary or secondary forms. One primary form, known as Partial Dysautonomic (PD) affects adolescents often around the age of 14. Symptoms continually worsen and peak by 16, before symptoms slowly fade. By the young adulthood years (ages 19-24) 80% are asymptomatic (Grubb, 2006).

### What are the symptoms?

POTS is not a disease, but rather a cluster of symptoms. Symptoms vary person to person, and each person can be affected differently day to day. Precipitating factors for symptoms include prolonged periods of sitting or standing, exposure to heat, eating, stress and menstruation.

- Orthostatic Intolerance
- Excessive Fatigue
- Mood Swings
- Tachycardia ( rapid heart beat)
- Exercise Intolerance
- Weakness
- Low Blood Pressure
- Nausea
- Anxiety
- Lightheadedness
- Visual Disturbance
- Vertigo
- Gastrointestinal Problems
- Shortness of Breath
- Difficulty with recall
- Brain Fog
- Sensitivity to light and noise
- Inability to concentrate
- Frequent Urination
- Insomnia
- Appetite Disturbance

### How is it managed?

- Medications may include vasoconstrictors and volume expanders
- Increasing fluids to 2-3 liters a day
- Drinking at least every 2 hours
- Increasing salt intake to 3,000-10,000 mg a day
- Use of compression garments like stockings, abdominal binders
- Avoid sleeping > 12h/day
- Recumbent exercise to stay active like swimming, biking and rowing

## Suggested school accommodations

- Flexibility in scheduling (students feel worse in AM when blood pressure lowest)
- Later start to day
- Partial days with home and hospital tutoring
- Offer online courses
- Adapted curriculum due to poor concentration, memory, and retrieval of information
- Elevator privileges
- Extra set of books
- Copies of teacher notes
- Student permitted to move around in class
- Temperature control in classrooms
- Teacher coordination and flexibility regarding testing, homework, assignments, etc.
- Flash pass

### SHNIC school nurses information:

#### Specific health issues for individual health care plans

- Student's signs and symptoms of orthostatic intolerance
- Current medication list
- Baseline assessment and parameters for heart rate, blood pressure
- Nutrition orders, including salt intake if Applica table
- Fluid intake goals
- Allowing rest periods in a quiet, dark area
- Monitoring student's fatigue level
- Communication with family and medical personnel
- Education of school staff on POTS
- Monitoring student's tolerance in the school setting including supervision as needed

**Medical Accommodation Card**

DYSAUTONOMIA INTERNATIONAL



AWARENESS    ADVOCACY    ADVANCEMENT

This person has Postural Orthostatic Tachycardia Syndrome (POTS). POTS can lead to irregular heart rates and blood pressure. **This person may urgently require a place to lay or sit down in order to avoid fainting and/or severe chest pains.** Please allow this person to sit or lay down when needed. Thank you. For more info, visit [www.dysautonomiainternational.org](http://www.dysautonomiainternational.org).

#### Resources & Journals

**Dysautonomia Youth Network of America**  
[www.dynainc.org](http://www.dynainc.org)

**Dysautonomia International**  
<http://www.dysautonomiainternational.org>

Agarwal, A.K., Garg, R., Ritch, A. & Sarkar, P. (2007). Postural orthostatic tachycardia. *Postgrad Medical Journal*, 83(981), p. 478-480.  
doi: 10.1136/pgmj.2006.055046

Grubb, B. (2006). The postural tachycardia syndrome: When to consider in adolescents. *Family Practice Recertification*, 28(3), p.19-30.