

## What is POTS?

POTS stands for postural tachycardia syndrome  
First characterised and defined in 1993

**PREVALENCE** estimated to be 0.2%

Abnormal response by the autonomic nervous system to upright posture. In some, mechanism is lack of vasoconstriction on standing causing pooling of blood in abdomen and limbs, reduced venous return to heart, compensatory tachycardia and altered cerebral circulation

More common in females age 15-50

**DISABILITY** - equivalent to disability in heart failure + COPD

### ASSOCIATED WITH

- hypermobile Ehlers-Danlos Syndrome and hypermobility spectrum disorder
- chronic fatigue syndrome /ME
- autoimmune conditions
- growth/puberty in children

## When to suspect POTS

### SUSPECT POTS in

- medically unexplained symptoms
- CFS/ME
- hypermobile patients

### SYMPTOMS

3 commonest symptoms are

- lightheadedness (presyncope)
- fatigue
- palpitations

Other symptoms include

- fainting
- nausea, bloating, abdominal pain
- cognitive dysfunction - 'brain fog'
- poor sleep
- exercise intolerance
- shakiness, sweating
- postural headaches and migraines

### SIGNS \*occur on standing/prolonged sitting\*

- tachycardia
- acrocyanosis - red/purple puffy hands and feet (50% of patients)

## How is POTS diagnosed?

### DIAGNOSTIC CRITERIA

Sustained increase in heart rate of 30 beats per minute (40bpm in teenagers) from lying to standing associated with symptoms of POTS.

**STAND TEST** -rest supine and record HR and BP. Then stand in a safe place and record BP and HR every 2 minutes to 10 minutes.

**INVESTIGATIONS** -exclude anaemia, hyperthyroidism, postural hypotension, pheochromocytoma

### MISDIAGNOSIS

Mean time to diagnosis is 7 years  
Meantime 50% of patients receive a psychiatric misdiagnosis e.g. anxiety, depression, hypochondriasis  
Other misdiagnoses - CFS/ME

### REFERRAL

To a specialist with an interest in POTS-there is a list on the POTS UK website  
[www.potsuk.org/doctors\\_nhs](http://www.potsuk.org/doctors_nhs)

## How to manage POTS

**AVOID TRIGGERS** - heat, large meals, alcohol  
- drugs that lower BP

**FLUIDS** - at least 2 litres /day in adults

**SALT** - Adults:+6g/day (unless contraindicated)

**EXERCISE** - initially supine, graduated regimen, can take 2 months to improve symptoms

**POSTURAL MANOUVRES** to avoid fainting - avoid prolonged standing, elevate legs, tense buttocks + thighs, fold arms, tiptoe)

**COMPRESSION** - class 2, waist high tights

**DRUGS** - include  $\beta$  blockers, calcium channel blockers, ivabradine, midodrine, fludrocortisone, clonidine, SSRI, desmopressin, pyridostigmine, octreotide

**CBT** - to help adjust to chronic illness

**IV FLUIDS** - in an emergency only