

Central Adelaide Multidisciplinary Ambulatory Consulting Service (MACS) Outpatient Service

Patient Information Sheet

Suggestions for Management of Postural Tachycardia Syndrome (PoTS)

Major Issue:

Postural Dizziness / Palpitations / Lethargy

Physiology:

Normal standing is made possible by a number of reflexes that come into play when a person stands up, to prevent the pooling of blood into the legs and lower part of the body caused by gravity, and to provide more blood to the upper part of the body (heart, brain).

If these reflexes do not work well, then the amount of blood volume in the upper part of the body is reduced when you stand, and this leads to a drop in blood pressure. The reflexes detect this by detecting a reduction in the "stretch" in the major blood vessels, and activate various responses including a speeding up of heart rate (which can sometimes be felt as palpitations).

In PoTS, the blood pressure drop is often minimal or non-existent, and although people often feel dizzy when they stand, this appears to be more related to the speed of the heart rate, rather than to the blood pressure. It is uncommon for people with PoTS to faint, but it can sometimes occur.

If you do faint, the best possible action to be taken by your family or friends is to keep you lying on the floor and LIFT YOUR LEGS up – this will send the blood that has been pooling in your legs back into the upper part of the body, where it is available to be supplied to the brain. This will let you recover much more quickly. After a few minutes, you can try lying flat again, and then progressively sit up.

Therapeutic suggestions

Not involving medications:

- Keep safe by knowing what to do when symptoms occur
 - If vision becomes grey or serious light-headedness occurs, SIT DOWN, or even LIE DOWN; although this may be embarrassing, it is much less so than having a blackout and ending up with an injury and an ambulance trip to hospital
 - If you have friends and family with you, they should know to lift your legs up
 - If you are having a bad spell, drinking 250 - 350 mls of water rapidly (over a few minutes) will usually increase the blood pressure for an hour or two
 - Sometimes, clenching your fist tightly for a few minutes will also increase blood pressure temporarily and help you to feel better.

- Avoid situations that make things worse:
 - Heat (hot environment, hot bath or shower)
 - Dehydration – keep your fluid intake up, particularly on hot days
 - Large meals
 - Alcohol
 - Rapid standing



- Standing still – when you stand still, the muscles of the legs stop acting as pumps to get the blood back up to the rest of your body. If you are walking and find yourself having to stop, you should keep your calf muscles working by walking on the spot, or by going up and down on your toes
- Medications: some antidepressants, some blood pressure lowering drugs, some antihistamines and psychiatric drugs (check with your usual prescriber)
- Take steps to increase overall BP
 - Head-up tilt overnight (bricks or blocks under the legs of the bed at the head end)
 - Increase salt intake (salt on food or salt tablets)
 - Maintain a good fluid intake
 - Coffee in mornings (or caffeine tablets – No-Doz)
 - Handgrip (isometric muscle contraction – causes brief increase in BP)
 - Bolus water drinking (250-350 mls over a few minutes can increase BP for about 40 minutes)

Medication options:

First steps

- Fludrocortisone – 100 micrograms per day (go up to 200 micrograms) – this one needs a prescription
- Phenylephrine – 10mg (Sudafed PE) – this is available over the counter at Pharmacies. Take one in the morning if you can tell it is going to be a bad day. Again at lunchtime if needed. This increases BP for about 3-4 hours, and can be used in advance for situations when you know that you are going to need to be standing for a while
 - After first dose, check BP at one hour

Later, on prescription if needed (special arrangements required)

- Droxidopa
- Midodrine
- Ivabradine
- Beta-blockers

For more information

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