

## You are what you eat - A guide to healthy eating for patients with Vasovagal Syncope and POTS

Blood pressure and pulse rate can be influenced by what we consume. These changes can be quite dramatic in a patient with Vasovagal Syncope or Postural Tachycardia Syndrome (POTS). This can work to the advantage or disadvantage of the patient.

### FLUIDS

It has long been recognised that people who are dehydrated are prone to fainting. When fluid intake is insufficient, or fluid loss is excessive, the volume of blood circulating in blood vessels becomes reduced and blood pressure falls. An average healthy adult requires approximately 1.5 litres of fluid per day - when exercising or in a hot environment, considerably more may be needed.

Patients with POTS are often hypovolaemic. This means that their blood volume is reduced in relation to the capacity of their blood vessels. Blood has a tendency to pool (collect) in hands, feet and abdominal (splanchnic) blood vessels. Increased fluid intake can boost blood volume and improve symptoms. Patients with Vasovagal Syncope often also pool blood. Fluid intake of 2-2.5 litres per day is generally recommended - more on a hot day. If exercising, it is probably best to boost your fluid intake even before you start.

**Monitoring:** You may find it helpful to drink from a refillable sports bottle - this allows you to keep track of how much you have consumed as it is very easy to underestimate when you are busy. Younger patients are often advised to drink sufficient fluids so that their urine is clear (i.e. not yellow in colour).

**Alcohol:** It is important to avoid excess alcohol consumption as alcohol dilates (opens up) blood vessels and can lower blood pressure. Patients with POTS are often alcohol intolerant - one glass can feel like two!

**Sports Drinks:** Some patients find it useful to drink pre-packaged sports re-hydration drinks containing electrolytes and glucose when they are at risk of developing symptoms. Alternatively, powders and tablets may be purchased from sports shops and websites - these are dissolved in water.

**Rapid Water Drinking:** Interestingly, in patients whose autonomic nervous system does not work properly, blood pressure can increase when drinking water - before the water leaves the stomach to enter the blood stream! This is called the 'pressor effect' and is thought to be triggered by stomach nerves sensing that the stomach has been stretched and triggering the sympathetic nervous system to raise blood pressure. If two glasses of water are swallowed rapidly, the effect will start in 3-5 minutes and may relieve symptoms of Vasovagal Syncope. In POTS, heart rate has been shown to drop.

**Caffeine:** Caffeine ingestion has been shown to produce a small rise in blood pressure. This may be of some use in patients with low blood pressure and syncope. However, it can also result in tachycardia (fast heart rate) and palpitations. It may encourage fluid loss. Patients appear to have mixed experiences with caffeine - some find it helpful and some feel worse. Caffeine is found in coffee, tea, cola, Irn-Bru and even chocolate. Experiment!

### FOOD

**Salt:** Patients with a tendency to low blood pressure and syncope are often advised to increase their salt intake. Patients with POTS (except hyperadrenergic POTS) may also benefit. Always ask your health care professional e.g. doctor if this is advisable. Recommendation regarding quantity varies, but 3-20g per day is often quoted for adults. (There are 6g of salt in a level teaspoon.)

For further information contact STARS

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Published March 2011

Some patients eat salty food such as crisps, salted nuts, bacon, sausages, feta, marinated olives, Marmite, instant noodles and packaged soups. Fast foods are often salty, but they also contain unhealthy fats and should be limited. It may be helpful to keep a little tub of salt in the car or handbag - or 'acquire' tiny sachets from fast food outlets.

Salt tablets can be useful, although they can cause nausea - as salt can irritate the stomach lining. In the UK, Slow Sodium is available to buy and on prescription. It has a wax coating which delays salt release until the tablet is in the small intestine, thus reducing nausea. Each tablet contains 600mg - 10 tablets is equivalent to a teaspoon of salt. Again, medical advice should be sought before use.

It may be helpful to combine both table salt and salt tablets. Take Slow Sodium with a high fibre cereal in the morning and in situations when it is difficult to add salt to food e.g. when travelling, and add table salt to food at other times. Some medications used in POTS and Vasovagal Syncope (e.g. fludrocortisone) do not work unless the fluid and salt intake is sufficiently high.

**Carbohydrates:** Many patients with POTS and Vasovagal Syncope experience deterioration in their symptoms after meals. This is because blood is diverted to the splanchnic blood vessels which supply the organs in the abdomen in an effort to digest food. Meals rich in refined carbohydrate (e.g. sugars and white flour) exacerbate this problem.

It is best to eat 'low GI foods'. This means that the food is digested more slowly and does not therefore produce rapid peaks in blood sugar levels. It is often lower in carbohydrate and higher in fibre content. Examples include: bran or oat breakfast cereal, nuts, yoghurts, beans, fruit and veg, brown rice and pasta, whole-grain bread.

**Fibre:** It is important to avoid constipation in Vasovagal Syncope. Straining can induce fainting in susceptible patients. Eat high fibre foods such as bran cereal, fresh and dried fruits, vegetables, beans and lentils, wholemeal bread, brown rice and pasta. Read the food

label. Plenty of fluids also help to prevent constipation.

**Potassium:** Patients taking Fludrocortisone for POTS and Vasovagal Syncope are prone to losing potassium. This can be dangerous and potassium levels should be monitored by blood tests. If levels tend to be low, eat food containing potassium e.g. bananas, avocados, dates, beans and lentils, spinach, mushroom, melon and dried fruits. If potassium levels are very low, medication may be recommended.

**When to eat:** Many patients with POTS and vasovagal syncope find that their symptoms are worse if they eat large heavy meals or become hungry. It is best to eat little and often i.e. graze all day long. Reserve carbohydrates/high GI foods for evenings or times when you can lie down and rest afterwards. It can be useful to keep long-life, low GI food at work or in cars and handbags for those moments when you are caught out. Examples might be low fat flapjacks, oatcakes, nuts, malt loaf, some dried fruits and dark chocolate (over 70% cocoa solids).

Try to keep your weight within normal limits (BMI 18.5 to 25). Low body weight can lower blood pressure and make you prone to fainting. Obesity will increase blood pressure, but has other cardiovascular disadvantages.

## THIS ALL SEEMS VERY COMPLICATED!

Life can feel very complicated when you have Vasovagal Syncope or POTS. You may have to attend lots of medical appointments, make adjustments at work or be unable to work, support family members who are also affected, keep your environment and clothing cool, monitor your posture, exercise regularly - and all this when you feel tired and unwell. Why should you also have to watch what you eat and drink?

Actually, this is all about a healthy diet. With the exception of high salt intake, it's what everyone should aspire to, whether you have autonomic problems or not. It also helps to give you some control over your symptoms. It's healthy, it makes you feel better and it can be rewarding.

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