

Active stand test instructions

Below are some instructions on how to do an active stand test to understand your autonomic function. Although this is most typically used for [postural orthostatic tachycardia syndrome \(POTS\)](#), it can also give data on wider dysautonomia. The results can be used diagnostically for POTS by a suitably qualified medical professional, and they also give insights into the [types of treatments](#) that may be more or less likely to be helpful.

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1. Equipment

- **Essential:** Blood pressure cuff (one that goes around your arm, not wrist)
- **Essential:** Friend or family member for help, support, and safety
- **Optional/helpful:** Pulse oximeter or similar to check pulse rate in real time

2. Instructions

1. Lie down for 10 minutes:
 - a. Take blood pressure and pulse at 5 and 10 minutes for a baseline
2. Stand up for (up to) 10 minutes:
 - a. Take blood pressure and pulse every 1 or 2 minutes
3. Record any new or worsening symptoms

WARNING: You must lie down and end the test *immediately* if you feel like you are about to faint (presyncope)

3. Should I stop medication/supplements?

Ideally, you should stop any medications, supplements, or other things that might affect your heart rate and blood pressure response, such as electrolytes/salt, large water intakes, and certain medications (e.g. antihistamines, ivabradine, beta blockers, etc). As a general rule, about 24-hours should be enough to give good results, though some medications and supplements have a longer half-life so may require longer abstinence. Compression garments should also be removed before doing the test.

However, although stopping these things is *ideal*, this must be weighed up with any detriments to your own health and wellbeing. If you know (for example) that limiting your fluid and salt intake or stopping a medication will negatively affect you an unacceptable amount, then you should not risk causing a crash just to get data. Only you can decide the risks, but please log any medications/supplements you take in the 24-hours prior to testing that may impact results.

4. Are there other risks to the test?

A stand test is a deliberate form of stress. Therefore, some patients find it can cause post-exertional malaise (PEM) or symptom worsening. Again, you know your body best, and you should be guided by what is safest for you.

Standing up may bring on symptoms, with the biggest risk being fainting (syncope). **It is imperative you stop the test immediately at any signs you *might faint***, or if symptoms become unacceptable. **It is also advised you have someone with you during testing in case you do (feel) faint or require help.**

5. Can the test be modified?

Yes! This can be helpful if you know that doing the full/proper protocol will risk PEM or similar, or you know it will simply not be feasible. Modifications will depend on your situation, but might look something like:

- Going from lying down to 10 minutes sitting up (instead of standing)
- Doing 3 minutes of standing (instead of aiming for 10 minutes)
- Doing the test whilst continuing, or reducing the dose of, medication/supplements, and/or whilst wearing compression garments

The risk with modifying the test is that we get less data, less clear/harder to interpret data, and/or your results come back incorrectly “normal”. However, your wellbeing must come first.

It is important you write down any test modifications so we can properly contextualise the results.

6. What can affect the test?

Two common things that can affect the test are:

6a. Subconscious muscle tension

When standing up, it is common that your body tries to encourage blood flow upwards by clenching muscles, usually in the legs and buttocks. Try and stay as relaxed as possible, with feet about one shoulder width apart, and standing up straight (or as straight as possible), throughout the standing period.

6b. Stress

It can be helpful to have someone with you who can keep an eye on the time, take your measurements, and write down results and symptoms throughout the test. This means you can stay focused on being as relaxed as possible. This person should be checking your symptoms, whilst keeping conversation to a minimum. As above, this person is also there for your safety.

Doing the test itself can be stressful. Because of this, sometimes the first one or two tests are not true reflections of your autonomic function. Therefore, some people find they need to do repeat testing (on different days, with ample rest days in between) to get accurate results.

7. When do I start the blood pressure cuff?

In my experience, blood pressure cuffs take about 40 seconds to give a reading. Therefore, I typically start my blood pressure readings about 40 seconds before the minute-mark. As long as you are consistent, whatever you choose to manage this measurement quirk is fine.

8. What are the benefits of doing this test?

An active stand test helps assess your autonomic function. This includes being validated to diagnose POTS, whilst also assessing other aspects of how your nervous system responds to being upright (e.g. blood pressure, pulse pressure). As such, these data can be used to diagnose POTS as well as helping to define its subtype (e.g. hyperadrenergic POTS), and give insights into the cardiovascular aspect of non-POTS dysautonomia (e.g. orthostatic hypotension).

In addition, getting a good baseline test means we can monitor your autonomic function over time. For example, we can see things like:

- Whether your autonomic function changes as your overall function/symptom burden changes; for example, you may not have POTS now, but it may develop in the future and we will be able to quantify that and show your medical team a very clear change
- How effective medications, supplements, and/or lifestyle factors are
- Understanding any trends that are helpful to you (e.g. whether your orthostatic tolerance is better/worse at a particular time of day, how it is affected by eating/fasting, diet, sleep, the menstrual cycle, etc)

9. I don't have POTS symptoms, should I still do the test?

In my opinion, yes. This is because the test shows us more than just POTS, as well as offering a baseline so we can see if or how your autonomic function changes over time. In addition, whilst the classic descriptions of POTS are things like “dizziness on standing”, many patients do not relate to these symptoms. As POTS is often a form of dysautonomia, symptoms can be whole-body and present even when lying down. This can mean the difference in symptoms from lying to standing may not be that obvious, but when patients start POTS treatments, these symptoms are significantly improved.

Some symptoms of POTS are also less reported; as such, patients might have them and not realise they *may* be part of the POTS package. Examples include: tinnitus/pulsatile tinnitus, myoclonus (quick jerking movements), thirst, excess urination, breathlessness, difficulties walking, tremoring, Raynaud's phenomenon, etc.

Lastly, many symptoms are non-specific, meaning they can be caused by many things. Since doing a stand test is a relatively easy way (in that you do not need a referral from a doctor) to check if you have dysautonomia, I think it is worth doing. At the very least, it helps rule-out something, and it may offer a diagnosis and some potentially helpful treatments.

Knowing you have dysautonomia also leads to the question of whether there is something *causing* it, such as [small fibre neuropathy](#), an autoimmune disease, [mast cell activation syndrome](#), a venous compression, or another neurological condition.

10. Can you diagnose POTS or dysautonomia?

I am not a medical doctor, and as such, I cannot make diagnoses. I am however happy to give an interpretation of your stand test results so you can speak to your medical team with accurate information to hand.

10a. Recording your results (table)

If you would like me to give an interpretation of your stand test, please complete the table below and email me your results (harriet@lc-sc.co.uk). If you would like you make your own graphs, you can download [this spreadsheet here](#); feel free to email me your copy of the graphs if you make them.

Time (min)	Pulse rate (bpm)	Systolic blood pressure (mmHg)	Diastolic blood pressure (mmHg)	Symptoms
Lying 5 min				
Lying 10 min				
Standing 1 min				
2 min				
3 min				
4 min				
5 min				
6 min				
7 min				
8 min				
9 min				
10 min				
Relevant medications/supplements taken in last 24-hours:				
Any test modifications that are not clear from the above:				

Disclaimer

The information in this booklet is for informational purposes only. It is based on information and guidelines published in the scientific literature and patient experience. However, any clinical care provided is the sole responsibility of the treating physician. The author accepts no responsibility for how the information herein is used.