



### **Autonomic Testing Preparation Instructions**

Autonomic testing, also known as autonomic reflex screen or autonomic response testing, is a non-invasive test that measures how the nervous system works to control blood pressure, heart rate and sweating. Your doctor or neurologist may recommend autonomic testing if you're experiencing symptoms including:

- Abnormal sweating
- Dizziness
- Fainting
- Fatigue
- Fluctuating blood pressure
- Numbness and burning in your hands or feet
- Rapid heart rate
- Shortness of breath

*Your doctor may order this test for other reasons as well.*

### **Autonomic testing results**

Physiological measurements will be obtained in both parts of the test (the QSART and the cardiovascular autonomic test with head-up tilt) to determine evidence of dysautonomia. The results can help physicians diagnose, evaluate, monitor and treat disorders of the autonomic nervous system, including:

- Abnormal sweating
- Autonomic neuropathy
- Baroreflex failure
- Certain degenerative diseases, such as multiple system atrophy and autonomic failure in Parkinson's disease
- Diabetes
- Hypotension
- Orthostatic intolerance
- Orthostatic cerebral hypoperfusion
- Postural tachycardia
- Pure autonomic failure
- Supine hypertension
- Syncopal seizures
- Syncope

### **What to expect during autonomic testing:**

Autonomic testing consists of activities designed to stimulate the autonomic nervous system to produce changes in blood pressure, heart rate, breathing and sweating in a controlled setting. The test includes two main parts - a quantitative sudomotor axon reflex test (if ordered) and a cardiovascular autonomic test.

- **Quantitative sudomotor axon reflex test (QSART)**

QSART is a test that measures the nerves that control sweating. During this first part of the autonomic test, we apply a mild electrical current to your skin to activate the nerves that supply the sweat glands. You may experience mild burning or tingling sensations in the areas being stimulated.

- **Cardiovascular autonomic test with head-up tilt**

During this second part of the autonomic test, we record and monitor your blood pressure, respiration, heart rate, and heart rhythm. This test involves performing simple maneuvers such as taking deep breaths, blowing into a mouth piece and changing position from lying down to standing upright. This test involves performing the simple maneuvers described below.

#### **1. Deep breathing**

This test examines how the heart rate responds to breathing slowly and deeply for a minute and 20 seconds at a rate of six breaths per minute.

#### **2. Valsalva maneuver**

This test involves blowing forcefully into a mouthpiece against a closed airway. The Valsalva maneuver examines how the body compensates for changes in the amount of blood that returns to the heart.

#### **3. Head-up tilt**

You must be lying down for at least 45 minutes prior to starting this test so this test will be done last. This test evaluates your blood pressure, heart rate, and breathing rate in response to standing up. You will start by lying on a stretcher-like table, relaxing and breathing normally, with straps attached around your abdomen and legs for. After 5 minutes of laying flat we will then tilt the table up to a 70-degree angle for 10 minutes to reproduce your symptoms in a controlled setting while continuously monitoring your blood pressure, heart rate, and breathing rate. If you experience symptoms - such as lightheadedness, weakness or feeling faint (known as pre-syncope) — we will tilt the table back to the lying position.



**Preparation: (VERY IMPORTANT) - Autonomic testing takes 1.5 to 2 hours.**

Please arrive 15 minutes early, if you are late or not properly prepared for testing, it may be necessary to reschedule your test. In the event you are unable to keep your appointment, please call us at (760) 631-3000 to cancel your appointment. We ask that you cancel at least 24 hours in advance.

- The listed medications attached are medications that can affect Autonomic Studies and may hinder you from getting accurate results of your testing. Not all medications are listed and need to be discussed with your ordering provider before this test can be scheduled. All drugs that can affect your sweat, heart rate and blood pressure should be addressed by the ordering provider. We cannot give you advice as to the safety of discontinuing your medications. **These medications must be verified with the prescribing provider's approval and instructions before stopping.** The number of days or doses needed to be stopped prior to testing is indicated in the column next to the medication name. **If these medications are not stopped at the time of your appointment you may be asked to reschedule your appointment.** If any of the listed medications cannot be stopped, please notify the provider that ordered this test before continuing with the Autonomic Testing as this may prevent getting accurate results and they may tell you not to move forward with this test. There may also be other medications not listed that the ordering provider has requested you to hold, if so please follow your provider's instructions and let the tech know when you arrive to your appointment. Please also note, all over the counter (OTC) cold and/or allergy medications should be stopped 3 days prior to testing unless otherwise noted. See attached form. If no medication instruction list is attached you may also obtain it by going online to the following website or please contact our office:

[https://neurocenter.com/diagnostic\\_testing/autonomic-testing/](https://neurocenter.com/diagnostic_testing/autonomic-testing/)

- Wear comfortable, loose-fitted clothing (loose pants/sweats or shorts and a loose t-shirt). No wired or tight fitting bra's. Do not wear double layered clothing. If your referring provider ordered this test with sweat test (QSART) please be aware that during the testing, one pant leg will need to be raised above the knee. You will be asked to remove your shoes and socks.
- Shower the morning of your appointment or the night before.
- No Topicals (oils or lotions) on your skin the day of test.
- Shave your forearms and legs from (foot to knee only) the day before. This applies to all patients who are being tested for QSART (sweat test) only.
- No nicotine, alcohol, marijuana or caffeine use Twenty-Four (24) hours before the test.
- Do not eat anything heavy 3 hours before the test, you can have a light meal.
- Morning of the appointment no corsets, compressions stockings or anything of that nature 24 hrs prior.
- Please make sure you are well hydrated the day before your test. Please note you will not be able to get up or use the restroom during testing.

You will be laying down flat for approximately an hour to an hour and a half and then at the end tilted up to a standing position for 10 min during this test. Please note you will also not be able to get up at all during this test. If you do not think you're are capable of doing so please contact us.

**Risks of autonomic testing**

Autonomic testing is considered safe. Some people may faint or collapse during the head-up tilt. When a patient's symptoms and continuous recording of heart rate and blood pressure suggest pre-syncope (near fainting), the patient will be tilted back to a flat position immediately.

**After the test:** When your test is complete, you can return to your normal activities. Fatigue and lightheadedness may occur, if that pertains to you, you may consider arranging for a friend or family member to pick you up after testing. Please note it takes up to 2 weeks for these results to be interpreted. If there are any urgent finding you will be contacted immediately otherwise your results will be given at you next follow up appointment.

Please call our office if you need to reschedule this appointment. There is a \$200 no show fee if you cancel within 24 hours or if you do not show up. Our phone number is (760) 631-3000.

Thank you!



**Medication Check-List**

Medication:	●	Medication:	●	Medication:	●	Medication:	●	Medication:	●	Medication:	●
Acebutolol	1 day	Clonidine	5 days	Indapamide	4 days	Pepcid	1 day	Theophylline	1 day		
Adalat	1 day	Cogentin	2 days	Inderal	2 days	Periactin	2 days	Tiazac	2 days		
Adderall	3 days	Compazine	5 days	Labetalol	3 days	Phenergan	2 days	Thorazine	7 days		
Albuterol	1 day	Concerta	3 days	Lavacol	2 days	Phentolamine	3 days	Toprol	2 days		
Aldomet	1 day	Coreg	2 days	Lexapro	7 days	Pilocarpine	1 day	Toprol XL	5 days		
Allegra	3 days	Corgard	5 days	Levsin	2 days	Pindolol	2 days	Trandate	2 days		
Alupent	1 day	Corlanor	5 days	Loperamide	2 days	Pramipexole	7 days	Trazodone	7 days		
Amantidine	7 days	Cyclobenzaprine	7 days	Lopressor	5 days	Prazosin	1 day	Trental	1 day		
Aminophylline	1 day	Cymbalta	7 days	Loratidine	3 days	ProAmatine	1 day	Trihexyphenidyl	1 day		
Amitriptyline	7 days	Cyproheptadine	2 days	Lozide	4 days	Procardia	1 day	Trinalin	3 days		
Amlodipine	4 days	Desipramine	7 days	Luvox	5 days	Promethazine	2 days	Valsartan	2 days		
Anafranil	7 days	Desyrel	7 days	Meclizine	2 days	Propranolol	2 days	Venlafaxine	5 days		
Antivert	2 days	Detrol	2 days	Mestinon	1 day	Propulsid	1 day	Ventolin	2 days		
Apresoline	2 days	Dicyclomine	2 days	Metaproterenol	2 days	Provigil	3 days	Verapamil	2 days		
Artane	3 days	Diltiazem	2 days	Methyldopa	1 day	Prozac	7 days	Vicodin	1 day		
Atarax	3 days	Dimetapp	2 days	Methylphenidate	3 days	Pseudoephedrine HCl	2 days	Visken	2 days		
Atenolol	5 days	Diovan	2 days	Metoclopramide	3 days	Pyridostigmine	1 day	Vistaril	2 days		
Atomoxetine	7 days	Diphenhydramine	2 days	Metoprolol Succinate	5 days	Quetiapine	2 days	Wellbutrin XL/SR	5 doses		
Atrovent	2 days	Dipivefrin	3 days	Metoprolol Tartrate	2 days	Ranitidine	1 day	Zantac	1 day		
Aventyl	7 days	Ditropan	2 days	Midodrine	1 day	Regitine	1 day	Zebeta	3 days		
Axid	1 day	Donnatal	5 days	Minipress	1 day	Reglan	3 days	Zofran	1 day		
Azatadine	3 days	Doxazosin	5 days	Mirabegron	5 days	Reserpine	7 days	Zoloft	7 days		
Benadryl	2 days	Doxepin	7 days	Mirapex	7 days	Resperidone	5 days	Zyrtec	2 days		
Benicar	3 days	Duloxetine	7 days	Modafinil	3 days	Risperdal	5 days				
Bentyl	2 days	Effexor	5 days	Morphine IR/SR	5 doses	Ritalin	1 day	*OTC cold/allergy	3 days		
Benylin	2 days	Elavil	7 days	Myrbetriq	5 days	Ritalin LA	3 days				
Benzotropine	2 days	Escitalopram	7 days	Nadolol	5 days	Robinul	1 day				
Betapace	4 days	Excederin	1 day	Nebivolol	4 days	Salagen	1 day				
Bisoprolol	3 days	Famotidine	1 day	Nefazodone	7 days	Salmeterol	1 day				
Bupropion XL/SR	5 doses	Fexofenadine	3 days	Nifedipine	3 days	Scopolamine	3 days				
Buspar	1 day	Flexeril	7 days	Norco	1 day	Sectral	1 day				
Buspirone	1 day	Flomax	3 days	Normadyne	2 days	Serevent	4 days				
Bystolic	4 days	Florinef	5 days	Norpramin	7 days	Seroquel	2 days				
Calan	2 days	Fludrocortisone	5 days	Nortriptyline	7 days	Sertraline	5 days				
Cardizem	2 days	Fluoxetine	7 days	Norvasc	4 days	Serzone	7 days				
Cardura	2 days	Fluvoxamine	5 days	Nucynta	1 day	Sotalol	4 days				
Carvedilol	2 days	Glycopyrrolate	2 days	Olanzapine	3 days	Strattera	7 days				
Catapres	5 days	Guanfacine	5 days	Olmesartan	3 days	Sudafed	2 days				
Celexa	7 days	Hydralazine	2 days	Olopatadine HCL	2 days	Symmetrel	7 days				
Cetirizine	2 days	Hydrocodone/Acetaminophen	1 day	Ondansetron	1 day	Synacort	1 day				
Chlorpromazine	7 days	Hydroxyzine	3 days	Orphenadrine	3 days	Tagamet	1 day				
Cimetidine	1 day	Hyoscyamine	2 days	Orvaten	1 day	Tamsulosin	3 days				
Cisapride	2 days	Hyperstat	2 days	Oxybutinin	2 days	Tapentadol	1 day				
Citalopram	7 days	Hytrin	3 days	Pamelor	7 days	Tenormin	5 days				
Claritin	2 days	Imdur	1 day	Paroxetine	7 days	Terbutaline	1 day				
Clomipramine	7 days	Imodium	5 days	Paxil	7 days	Theo-dur	1 day				