

Expanded Autonomic Training

**Mayo School of Continuous Professional Development
Mayo Clinic, Rochester, MN**

Course Contact Information:

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Overview:

The *Expanded Autonomic Training* course complements the *Clinical Autonomic Quantitative Workshop* offered every other year at Mayo Clinic. The target audience for the expanded training is physicians and neurophysiology technicians starting an autonomic laboratory or seeking to refresh/refine skills in autonomic function testing. Participants of the program are interviewed to assess current level of education, knowledge, and experience in order to structure the individuals learning experience.

Target Audience:

Technicians: Currently there is no certification for autonomic lab technicians. A request for training is anticipated to come from 2 major groups:

1. Technicians who have no experience with autonomic testing and equipment; this group will require the longest exposure (5 days), with didactics and extensive hands-on training.
2. Technicians currently working in an autonomic laboratory; this group will require more focused training, use of different equipment, possibly more exposure to the clinicians for test interpretation. This group should plan on the 3 day training option.

Physicians: A request for training is anticipated to be similar to that of the technicians. It is also anticipated physicians will also have different backgrounds and come from other specialties. Furthermore, there is now an additional board certification in autonomic subspecialties and some physicians may wish to accrue enough CME credit hours to qualify for the board certification. We expect clinicians will generally require shorter training (3 days) and based on their needs (that will be assessed by a pretest and interview). The training will be customized to maximize the learning experience and fulfill the educational needs. Physicians will spend time with the technicians for some hands-on training, they will learn some troubleshooting, however, the most of their time will be with the clinicians reading the tests and discussing autonomic cases.

CME Credits:

Eight (8) CME Credit hours will be awarded per day.

Cost:

Cost of the program is \$350 per day. The minimum length of the training is 3 days.



Course Outcomes:

Upon completion of this activity, all participants should be able to:

1. Recognize the underlying basis for the evaluation of autonomic function.
2. Explain how to utilize autonomic testing of patients with autonomic disorders.
3. Develop a plan for autonomic testing of patients with autonomic disorders.
4. Assess commercially available autonomic equipment.
5. Select new autonomic function tests using underlying autonomic principles.

Outcomes specific to technicians:

1. Perform autonomic testing proficiently and efficiently
2. Recognize technical errors/pitfalls
3. Identify patients requiring additional studies
4. Identify most common autonomic abnormalities on testing

Outcomes specific to physicians:

1. Interpret various autonomic study patterns and translate them into a meaningful interpretation
2. Identify and manage at least major autonomic disorders

Sample Schedule of Events (3/5 day tracks):

Monday: AM: Participants will be educated on equipment basics, testing protocols, and technical issues. Specifically, participants will be educated on patient preparation requirements for autonomic testing and instructed on proper testing protocols. Additionally, participants will review and become familiar with the equipment used for autonomic testing including beat-to-beat blood pressure device, preparation and hook-up of standard 3-lead EKG's, proper fastening of the respiration belt, and proper set up and performance of the sudomotor testing (i.e. Quantitative Sudomotor Axon Reflex Test: QSART). PM: Participants will spend the entire afternoon in the lab observing testing protocol.

Tuesday: All Day: Participants will spend the entire day with hands-on practice under supervision. Primary focus will be on patient preparation (i.e. hooking up of equipment), interaction/instructions on how to perform the proper testing, and finally, participants will be introduced on how to troubleshoot various pitfalls that can arise during autonomic testing.

Wednesday: All Day: Participants will continue with supervised practice of testing protocol and begin to identify common patterns of abnormalities (i.e. orthostatic intolerance, abnormal increase in HR, etc.), identify artifact (i.e. ectopic beats, PVC's, etc.), and be able to identify the different phases of the Valsalva Maneuver.

Thursday: All Day: Participants will become familiarized with main autonomic symptoms and syndromes; time will be allotted to observe physicians reading and interpreting reports. In addition, time will be spent on data analysis techniques.

Friday: All Day: Participants will be able to formulate test interpretation independently; further time will be allotted for case study discussion with physicians and lab personnel.

Note: Physician and technician schedules will be tailored based on needs, education level, and time allotted.