

## **Response of the cardiac autonomic control system after oxygen therapy 100% in hyperbaric therapy.**

### Research Objectives

- Evaluation of the function of the autonomic control system for heart rate variability in different subjects after being in a hyperbolic environment.
- Examining the reflective response of the autonomic control system to stimuli at different stages of treatment.
- Examining the response of the autonomic system to physical, cognitive action at different stages of treatment.

### Research Process:

After signing the Informed Consent Form, the study participants will be examined at four time periods: two weeks prior to starting treatment, one month after starting treatment, last week for the treatment series (if the treatment continues for more than 6 weeks / 30 weeks) and one month after treatment ends. Each time the subject is connected to a Polar watch and a breath strip. A test of about half an hour will be conducted during which the subjects will be asked to perform:

- Grip Test - Handshake Test
- Breathing Test - Breathing test in which the subject is required to take 6 breaths per minute.
- Cognitive sitting task - subtracting serial number 3 from a random number in the 100 s). The subject was given a three-digit number and for a whole minute he had to miss each time by jumping three.
- Motor task - standing from sitting to standing.
- Performing a motor task + a cognitive task

A 5 minute rest will be given between the various tests.

The tests are non-invasive and do not pose any risk to the patient.