

ISCHEMIC EXERCISE TEST PROTOCOL

PURPOSE:

This test is performed to aid in the evaluation of patients with chronic diffuse muscular aches or cramps or pains and for patients suspected of having a defect in anaerobic glycolysis.

PATIENT PREPARATION:

Determine blood pressure.

Insert 21 gauge scalp vein needle into vein on the dorsum of the forearm.

TEST PROTOCOL:

Notify Lab - Chemistry (ext. 16394) that this test is being performed prior to obtaining blood specimens. This test should only be performed during the hours of 8 AM - 5 PM, Monday through Friday.

Test request the Ischemic Exercise test (LF test code: IET).

Draw the baseline blood specimen for lactate analysis (3 mL or 7 mL gray topped tube. Minimum volume 1 mL blood in 3 mL gray topped vacutainer tube). Mix by inversion. Immediately label tube with patient's name, MHN and date and time of collection.

NOTE: Send all blood specimens to the laboratory as a group at the end of the test. After collection, each sample should be kept on wet ice until analyzed.

Inflate BP cuff to 200 mmHg or with patient's systolic pressure and carefully maintain it at this level during one minute of exercise.

Squeeze dynamometer at one stroke per second and with sufficient strength to produce 10-15 kg of force.

After one minute of this exercise, the exercise is terminated and the cuff is quickly deflated.

Collect venous blood specimens (without stasis) at precisely 1, 3, 5, 10, and 20 minutes post exercise. See step #3 above for collection, labeling, and handling directions.

SOURCE OF PROTOCOL:

David B. Frens, M.D., Marshfield Clinic, 1990