

## Procedures/Diagnostic Tests

### *Electromyography*

You have been scheduled for electromyography. This is an examination of your muscles and nerves. For this test, you will undergo a neurological exam, nerve conduction studies, and electromyography. The results from this examination help your doctor learn if your symptoms or pain is due to muscle or nerve disease. These procedures also help evaluate the severity of your disorder.

#### **Preparation**

There is no special preparation.

#### **Procedure**

- The examination is done by a neurologist. A technologist also does some portions of the test.
- A neurologist will do a neurological exam to locate the muscles and nerves to be studied. Once they are located, they will be studied—first by nerve conduction studies; then electromyography.
- Nerve conduction studies show how well your nerves pass electrical messages. Several nerves are studied, usually in the arm and leg. First, electrodes will be placed on your skin. Through these electrodes, the nerves will be stimulated by a weak electrical pulse. This pulse may feel like tapping, and the muscles will twitch as they respond. The electrical messages made by the nerves will be recorded by other electrodes placed on your skin, usually in the leg or arm.
- For electromyography, a fine, sterile needle will be inserted into the muscle. During the insertion, you will feel discomfort similar to that of taking a blood sample. Then, you will be asked to relax and do slight muscle contractions. The electrical activity from your working muscle will then be measured.
- The procedure may last up to 3 hours.

#### **After the procedure**

The electrical procedure is completely harmless and has no lasting side effects. You may have a bruise or soreness at the needlestick site.

Neurologists will interpret the results and send a detailed report to your referring doctor. Your referring doctor will discuss the results with you.

If you have questions about the procedure, please ask. Your nurse and doctor are ready to assist you at all times.

#### **Special instructions**

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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