

determine if there is any nerve damage.

Degeneration or dysfunction of nerve endings in the skin maybe an indicator of a neuropathic pain condition. The skin biopsy will allow us to study your nerve endings.

What are “small-diameter nerve fibers”?

Nerve damage causes different symptoms depending on which type of nerve fiber is damaged. Our laboratory is interested in damage to the small-diameter pain-sensing nerve fibers. Damage to these small nerve fibers can cause chronic pain and other symptoms. This kind of nerve damage is not detected by standard nerve tests such as EMG/NCS (electromyography and nerve conduction study).

What are we studying?

The Nerve Injury Unit, Dept of Neurology at Massachusetts General Hospital in conjunction with the Department of Defense, is studying Gulf War Illness in Veterans who served from 1990 to 1991, in the Gulf War Region. We are studying those with Gulf War Illness as well as those who don't have Gulf War Illness.

What does the study involve?

Veterans who choose to participate will be asked a few pertinent questions pertaining to their present overall health as well as undergo testing for small fiber poly-neuropathy. There are two tests currently used for clinical diagnosis of this condition, Autonomic Function Testing and Skin Biopsy

Autonomic function testing (AFT) consists of four separate tests that are routinely used by physicians to diagnose

peripheral nerve conditions. Subjects are instructed to avoid food, nicotine, alcohol, caffeine, and specific medications, as is typical for these types of tests. In this test, we monitor blood pressure, heart rate, deep breathing and sweat production. You will be lying down during most of the testing.

Since small fiber damage cannot be measured, the only way to diagnose it is by biopsy. The standard way of detecting damage to small-fibers is to count how many there are within a tissue biopsy and to compare to expected values. The simplest way to do this is using skin biopsies taken under local anesthesia. The small nerve fibers penetrate into the skin so the skin can be biopsied rather than a nerve itself. The skin biopsies are turned into microscope slides that are specially labeled to show the nerve fibers within. Their numbers are counted and compared to normal values to

Who can participate?

Any Veteran who served in the Gulf War Region from 1990-1991 is eligible to participate in this study. For those who choose to participate, Subjects will receive \$100.00 upon completion of the study or they may volunteer for the study. We will also pay for parking costs at the Massachusetts General Hospital garage.

This is *NOT* a treatment study.

There are no medications or new procedures being tested. We do not stop or change any medications your doctor may have prescribed.

Whom can I contact about the study?

If you are interested in more information about this research study, please call The Nerve Injury Unit at 617-726-9391 and talk to one of our study staff, or email us at NerveUnit@partners.org

Partners Human Research Committee

APPROVAL Effective Date

4/4/2017



MASSACHUSETTS
GENERAL HOSPITAL



Are You A Gulf War Veteran?

Do you or someone you know,
suffer from Gulf War Illness?

If so, we need you!



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