Service: Neurology

Muscle or nerve biopsy

Exceptional healthcare, personally delivered
Muscle or Nerve Biopsies

Your doctor has recommended that you have a muscle and/or nerve biopsy to help aid in the diagnosis of your condition. This may help decide what is the best treatment for you. The following booklet has been produced by the neuromuscular team at Southmead Hospital and is intended for patients, their families and carers to provide information about the procedure. It is not intended to replace discussion about muscle/nerve biopsy with your consultant. Once you have agreed to the procedure, we will arrange the biopsy for you. This will be undertaken by a member of the neuromuscular team in a surgical theatre.

What is a muscle or nerve biopsy?

These procedures involve taking a small sample of muscle and/or nerve tissue from under the skin, which will be examined in the laboratory for abnormalities that may reveal important information about your condition. In a muscle biopsy, two pieces of muscle roughly 5-10 mm across are removed. The samples are usually taken from the thigh or shoulder but can sometimes be taken from the lower leg or arm. A nerve biopsy involves taking a small sample of nerve from the arm or leg. The most common site is the ankle.

Why is the biopsy performed?

Your doctor suspects that you may have a condition that is affecting your muscles and/or your nerves, for which a cause has not been identified. A muscle or nerve biopsy will often give your doctors further information helping them to diagnose your condition.

How is the biopsy performed?

A muscle biopsy is usually performed under local anaesthetic, while a nerve biopsy will usually require a general anaesthetic. The doctor performing the procedure will be a consultant who
specialises in taking a muscle or nerve biopsy.

The procedure takes about 30 minutes and is performed in an operative theatre under local anaesthetic. This means you will be awake throughout the procedure. The area to be biopsied will be sterilised and a local anaesthetic (numbing agent) will be injected into the area. This may cause a stinging sensation. Once the area is numb, a small cut will be made in the skin to allow the sample to be taken. When the muscle sample is being taken, you may experience a ‘pulling’ or ‘pressing’ sensation. Some patients find this uncomfortable. The wound is then stitched and medical tape (called ‘steri-strips’) are often applied, along with an adhesive dressing. You will remain in the recovery room, for about 30 minutes following the biopsy and then you will be free to go home.

You will need to arrange for someone to drive you home from hospital and to avoid any strenuous activity for the first 72 hours and slowly return to normal activity. You will need to rest your leg/arm as much as possible. You should not drive for 24 hours following the biopsy and then you can return to driving when the biopsy site feels comfortable. This may take up to seven days following a nerve biopsy.

**Wound Care**

After the procedure the incision site will be covered by a dressing. A crepe bandage may also be applied. If you have had a biopsy from the ankle then you should keep this elevated and rest as much as possible for 2-3 days. You may remove the bandage after 2-3 days but should keep the dressing on for about 10 days, during which time you should try to keep it dry. You may need to attend your local medical practice 10-12 days after the procedure to have your stitches removed. We will give you a letter which tells you if /when you need to have this done.

If you do have any concerns once you have been discharged home, please contact your GP in the first instance.
Results

An initial report of the findings from the muscle biopsy is usually available within four weeks after the procedure. This may take longer if additional special tests are required. The results will usually be discussed at an appointment in a future clinic with your referring doctor.

How should I prepare for a muscle biopsy?

You will need to undergo blood tests prior to the biopsy. These tests include a full blood count and clotting screen. These tests will be arranged for you and should be undertaken prior to visiting the hospital for your biopsy.

Medications

Please advise us immediately if you are taking any drug which alters the way your blood clots (including warfarin, aspirin, clopidogrel, dabigatran, rivaroxiban, apixaban or any other anti-coagulant drug). If you are not sure, please inform your Consultant, via their secretary. You can take your other medication as normal UNLESS you are advised otherwise by your doctor. Please bring a list of your medications with you.

Eating and drinking

As most muscle biopsies will be performed using local anaesthetic, you CAN eat or drink normally on the morning of the procedure.

If your biopsy is being performed under a general anaesthesia, you should not have anything to eat after midnight on the day before the procedure. You may drink water until 6 am. You will be free to eat and drink normally after the procedure.

You will be notified before your appointment if your biopsy is being performed under local or general anaesthetic.
Asking for your consent

We want to involve you in all decisions about your care and treatment. If you decide to go ahead with this procedure, we will ask for you to consent and to sign a consent form. This confirms that you have agreed to the have the procedure and understand what it involves. The risks and reasons for the procedure will be discussed with you before you sign a consent form.

What if I decide not to have the muscle or nerve biopsy?

There is no alternative test that can provide the type of information available in a muscle biopsy and assist your Consultant in diagnosis. Without the biopsy, your consultant may find it more difficult to diagnose and manage your condition. However, it is entirely your decision whether you wish to go ahead with your biopsy. If you decide that you DO NOT wish the biopsy to be done, then please contact your Consultant via their secretary.
Possible Side Effects

What are the main complications of muscle biopsies?

The most common problem following a muscle biopsy is pain or aching discomfort at the site of your muscle biopsy for the first few days after the procedure. In some patients, this discomfort can take up to 2 weeks to disappear completely. Discomfort is less marked if you rest the muscles as much as possible, especially for the first 2-3 days after the biopsy. You can take mild pain relief such as paracetamol, if required. You should always follow your pharmacists’ or doctor’s advice when taking tablets.

There is a small risk of wound infection, or of bleeding into the wound.

There will be a scar at the site of the biopsy. This will initially be red but tends to fade and become less obvious in time. Using sunscreen when your scar is exposed to sunlight can help to reduce scarring.

What are the main complications of nerve biopsies?

There is likely to be some discomfort at the biopsy site for the first few days after the biopsy. You are able to take mild pain relief such as paracetamol, if required. You should always follow your pharmacists’ or doctor’s advice when taking tablets. This initial pain usually settles but in about 1 in 10 patients there may be a persistent soreness at the site of the biopsy, which may last over a year.

There will be a permanent area of numbness (loss of sensation) in the area of skin supplied by the nerve that is biopsied. In a sural nerve biopsy this will involve the top of your foot. If another nerve is to be biopsied, the doctor will show you the area that is likely to be involved. A few days after the biopsy you may experience unpleasant sensations (pins and needles, burning, prickling, rawness) in the numb area, which disappears after
about 3 weeks in most patients. However, in up to 1 in 3 patients these unpleasant sensations may persist for over a year.

There is a small risk of wound infection, or of bleeding into the wound.

There will be a scar at the site of the biopsy. This will initially be red but tends to fade and become less obvious in time.

References


If you need support reading this leaflet or require larger print, please ask a member of staff for advice.

© North Bristol NHS Trust. This edition published February 2018. Review due February 2020. NBT002125