

What is a muscle biopsy?

A muscle biopsy is a minor operation to remove a small sample of muscle.

Why is a muscle biopsy performed?

In patients with muscle symptoms or disease, examination of a small piece of muscle may give important information on the type of disease of the muscle and the severity of the disease. Establishing a diagnosis can allow specific treatment to be given. Muscle biopsies may also be helpful in patients with diseases of other tissues, as muscle is more safely and readily sampled. Unfortunately the findings are sometimes not specific, and a precise diagnosis may not be made even after a biopsy.

Which muscle is biopsied?

We normally biopsy muscles in the leg or arm. The most common muscle is in the outer thigh.

How is the biopsy performed?

The operation is performed under local anaesthetic. You will be asked to lie down, and a local anaesthetic will be given in the site from which the biopsy will be taken.

A small cut (incision) is made, and the muscle is carefully exposed. The sample of muscle is then taken, and the wound is then stitched. Self-dissolving stitches are used beneath the skin, and non-dissolving stitches in the skin. A plaster is then applied. You should let us know if you are allergic to any types of plaster. Although it is not necessary to starve before the operation, as there is no general anaesthetic, it is better not to eat immediately before (1-2 hours) the operation in case you feel sick.

The operation takes around 30 minutes, but there is additional time spent in transporting you to the operating theatre, waiting and in preparation. If you have a personal stereo you may wish to listen to your own music while waiting and having the operation.

What do I do after the biopsy?

Patients are advised to stay overnight following the biopsy for rest and observation, to allow the wound to heal. Patients who have the biopsy in the arm are usually able to go home later the same day after a period of observation.

After the biopsy you should rest your leg for the first day if possible, and keep the wound dry for two days. The wound will gradually heal. Sports and excessive exertion should be avoided for at least 2 weeks. The skin stitches should be removed 10 days after the operation by your GP's team.

What problems may there be with the biopsy?

The wound may ooze a little, and this is normal. If there is excessive bleeding, you should seek medical advice. There is a risk of the wound becoming infected, and you should consult your GP if you suspect this - treatment with antibiotics may be appropriate.

Unfortunately there is always the possibility that muscle may not be obtained, or the muscle biopsy is unsatisfactory (for example due to excessive disease, or technical problems). Sometimes a further biopsy may be necessary. If this is apparent at the time of the operation, another muscle may be biopsied at that time, or it may be necessary to return on another occasion.

What are the side effects of muscle biopsy?

As indicated above, there may be problems with bleeding, or healing of the wound. There will be a small scar at the site of the operation, which will heal gradually. If there is any pain or discomfort in the skin or muscle immediately following the operation after the local anaesthetic has worn off, simple pain killing medication such as paracetamol or aspirin may be taken.

What happens to the muscle biopsy?

The muscle biopsy is processed and looked at under a microscope. Different tests are performed depending on the suspected diagnosis. The processing may take at least one week, and full analysis leading to a full report usually takes three to four weeks, or longer in more complex cases. The result is sent to the referring doctor, who will then explain the findings to you.

Any sample remaining after this analysis is stored, in case further analysis, or reanalysis is required in the future. The remaining muscle may also be used in research into diseases of muscle, and development of new techniques.

Do you have any further questions?

When you come into the hospital for the muscle biopsy, the surgeon will seek your consent to the biopsy and provide further information. This is also a chance to ask any further questions you may have.