Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Distal Biceps Repair Surgery- with Endobutton

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Distal Biceps Repair Surgery (with Endobutton)

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Introduction

This leaflet aims to help you understand and gain the maximum benefit from your operation. It is not a substitute for professional medical care and should be used in association with treatment at the WWL NHS Trust. Each person's operation is individual and you may be given specific instructions that are not contained in this leaflet.

What is a rupture of the distal biceps tendon?

The biceps muscle is the large muscle in the front of your upper arm which bends your elbow and twists your forearm to turn your palm upward. The biceps tendon connects the biceps muscle to your radius bone, which is one of the forearm bones.

Over time, the tendon can weaken and rupture. This can happen without any warning and commonly occurs when lifting heaving objects. People may feel a pop in the elbow and pain accompanied by warmth, bruising and swelling on the front of the upper forearm. The symptoms usually get better over a few weeks. Sometimes, the muscle can have pulled up in the arm resulting in a muscle with a larger-than-normal appearance, called a "Popeye sign". The distal biceps tendon sometimes tears only part of the way. When this happens, a pop may not be felt or heard. Instead, the area in front of the elbow may simply be painful, and the arm may feel weak with the same arm movements that are affected in a complete rupture.

What are my Treatment Options?

The options are to do nothing, or to have an operation to repair the tendon. The elbow will continue to work after a biceps tendon rupture because there are other muscles that can compensate for the job of the biceps muscle. Without an operation your tendon will not heal.
You may experience weakness when bending the elbow or rotating your forearm to turn the palm upward (a movement called supination), or you may find that your arm fatigues more quickly. For some people, the loss of strength is not a problem. You may experience ongoing pain and muscle cramps in the biceps.

The operation to repair the tendon aims to restore strength and reduce pain and cramp.

What is a distal biceps tendon repair surgery with an endobutton?

The tendon is reattached onto the forearm bone with an anchorage device, and this can come in several forms. We prefer to use a device called an *Endobutton*. You will have a small incision over the forearm, where the biceps should attach onto the bone. Another incision higher up the arm may sometimes be required to find the retracted tendon.

The end of the ruptured tendon will be stitched onto a button. A small bone tunnel is made where the tendon should attach. The tendon and button are then threaded through the tunnel. The button is flipped over to sit flush with your bone. This stops the tendon pulling away from the bone. Over time your body will heal the tunnel in the bone, and the repair then knits together with your scar tissue.

Aims and Benefits

Without surgery you will be able to compensate for most of the reduced power of biceps with appropriate rehabilitation, and will manage most activities with no problems. Repetitive motions turning the hand over and back (such as using a screwdriver) can tire more quickly and cause cramping.

The surgery should help to reduce the pain and cramping sensation in the muscle, though this may not fully resolve.

If you do opt for surgery, the sooner the operation can be carried out following the injury the better. If your biceps tendon injury has occurred beyond six weeks ago, a different type of surgery may be needed, and the post-operative advice and information would then be different.

With or without surgery you will initially lose muscle bulk on the injured side. If you opt for surgery however, your overall recovery will be longer and you will have strict limits on the use of your arm for twelve weeks after the operation. This can mean twelve weeks off work if you have a manual job and twelve weeks out of any contact sport and upper body strength training. However you should return to up to 90% of your original strength. The lost muscle bulk will recover with appropriate rehabilitation.

Your tendon will not reattach to the bone without the surgery.

Risks

Decisions regarding surgical treatment are best taken jointly between the surgeon and an informed patient. In addition to the surgeon explaining the procedure, you must take the opportunity to ask and clarify, what concerns you the most, no matter how trivial you feel your concern may be!

All surgical procedures are associated with a degree of risk. The risk can be divided into the risk of the surgical procedure and risk of undergoing anaesthesia. Your anaesthetic doctor will be able to advise you the risks of the anaesthesia. Your surgical team will do everything possible to minimise the surgical risks and complications.

Risks of Bicep Repair Surgery

Infection

The risk of infection is low. After your operation you should ring the ward and your GP immediately if you get a temperature, become unwell, or if your wound becomes red, sore or painful. If the wound becomes infected you may need a course of antibiotics.

Nerve injury

The risk of permanent nerve injury is low. The biceps tendon sits close to the nerve that lifts your hand at the wrist. Care is taken during the surgery to avoid the nerve. If this nerve is injured, you may experience pins and needles or numbness in your hand and wrist. The nerve injury could result in weakness in the hand and wrist. In this case you may be unable to lift your hand up at the wrist.

Temporary numbness or pins and needles of the forearm, wrist or back of the hand is common. These symptoms recover in most patients.

Fracture of the bones around the elbow

The radius may break (fracture) during the surgery when we drill a hole to accommodate the anchor. The surgery may need to be abandoned if the break renders the anchorage unstable and you may need surgery to treat the break. The risk of this is very low.

Re-rupture

The repaired tendon may re-rupture. It is important that you follow instructions regarding protecting the repair by using the sling and avoiding lifting whilst the repair heals. The risk of re-rupture is very low.

Haematoma and Bleeding

Care is taken during surgery to reduce blood loss and prevent bleeding. Haematoma is a collection of clotted blood. Rarely this may need further surgery to address. The risk of this is very low.

Stiffness

There is a risk that your elbow will not regain full movement after the replacement. This may be due to scarring or due to bone growth in the soft tissues. The risk of this is very low.

Pain

There is a very low risk that you will have ongoing pain after the surgery. There is a slightly higher risk that you may have ongoing cramping symptoms in the muscle. This usually settles with time.

General risks of surgery

A pre-operative assessment will be carried out by the anaesthetic team. They will assess your general health, fitness and suitability of having an anaesthetic.

There are some serious, but extremely rare risks associated with having an anaesthetic. These include having a heart attack, a stroke, a blood clot in your legs or lungs, and death.

Alternatives to surgery

The decision to proceed with an operation is an individual choice between every patient and their surgeon. You will only be offered an operation if your surgeon believes that this will help improve your symptoms. Very few operations are essential and all have a degree of risk. Some patients can learn to manage their symptoms with painkillers and improve function with muscle strengthening and physiotherapy.

Surgery is not necessary, particularly if you are an individual who does not do activities that require the additional strength. Anti-inflammatory medicines may help ease pain and swelling, and you may be referred to a physiotherapist.

Frequently asked questions

Will it be painful?

You may have had a local anaesthetic nerve block as part of the anaesthesia so you may wake up with a numb arm. This local anaesthetic will wear off over the first day, so it is important to take medication regularly to begin with to keep the pain under control.

You will be given painkillers (eitheras tablets or injections) to help reduce the discomfort whilst you are in hospital. A one-week prescription of pain medication will be given to you on discharge. It is important to keep the pain to a minimum by taking regular pain relief, this will enable you to move the elbow and begin the exercises that you willbe given by the physiotherapist. If you require further medication after these are finished, please visit your general practitioner (GP). The pain usually settles quickly following this surgery.

You may have some bruising and swelling around the elbow and forearm. This will gradually disappear over a period of a few weeks.

Do I need to wear a sling?

You will be advised to wear a sling. This protects the surgery during the early phases of healing and makes your arm more comfortable. The physiotherapist will advise you post-operatively how long you will need to wear the sling for. A nurse or physiotherapist will sho w you how to take the sling on and off.





Do I need to do exercises?

Yes. You will be shown exercises by the physiotherapist. You will start exercises to move the elbow on the first day after the operation. You will then need to continue with exercises when you go home and outpatient physiotherapy appointments will be organised for you.

The exercises aim to stop your elbow getting stiff. They will be changed as you progress and made specific to you and your lifestyle.

You will need to get into the habit of doing regular daily exercises at home for several months. They will enable you to gain maximum benefit from your operation.

What do I do about the wound?

Your wound will have a shower-proof dressing on when you are discharged. You will be given extra dressings to take home with you. You may shower or wash with the dressing in place, but do not run the shower directly over the operated shoulder, or soak it in the bath. Pat the area dry and do not rub.

You may have dissolvable stitches and sticky dressing called Steristrips. If not, the stitches/ clips will need to be removed at your GP practice or your hospital follow up appointment. The nursing staff will advise you when this can happen; it is usually between 10–14 days after your operation. Avoid using spray deodorant, talcum powder or perfumes on or near the wound until it is fully healed. Please discuss any queries you may have with the nurses on the ward.

When do I return to the outpatient clinic?

This is usually arranged for approximately 4-6 weeks after you are discharged from hospital, to check on your progress. Please discuss any queries or worries you may have when you are at the clinic. Appointments are made after this as necessary

Are there things that I should avoid doing?

1. Avoid lifting anything heavier than a mug of drink for the first 6 weeks.

2. Avoid repetitive activities other than exercises shown to you by your physiotherapist.

3. Avoid leaning with all your body weight on your arm. For example, leaning heavily on your arm to get out of a chair.

When your physiotherapist advises you that you can remove the sling during the daytime, do not be frightened to start moving the arm as much as you can. Gradually the movements will become less painful.

How I am likely to progress?

This is dependent upon your procedure and can be divided into 3 stages:

Stage 1: Sling on, plus elbow exercises

You will basically be one handed immediately after the operation. This will affect your ability to do everyday activities.

Stage 2: Waiting for the tendon to heal, and regaining movement

When advised by your team you can gradually wean yourself out of the sling. Do not be frightened to try and use your arm at waist level for light tasks. The pain in your elbow will gradually begin to reduce and you will become more confident. You will be seeing a physiotherapist and doing regular exercises at home to get the arm moving and to start regaining muscle control. If you feel unsure about what you can or cannot do, please discuss this with the physiotherapist.

Stage 3: Regaining function and strength

The exercises are now designed to improve the strength, and to rehab' your arm to return to full sports and activities. It is likely that you will return to gym type activities around 12 weeks post-op.

When can I return to work?

For sedentary jobs, e.g. in an office, you may return after 4 weeks, or 6-8 weeks for less sedentary jobs. For manual jobs you will need 12 weeks off work. This can be discussed with your consultant.

When can I drive?

The law states that you should be in complete control of your car at all times. It is your responsibility to ensure this and to inform your insurance company about your surgery. We advise you not to drive for the first six weeks.

When can I participate in my leisure activities?

This depends on the sport. As a guide:

Swimming 8-12 weeks

Golf 8 weeks

High impact or contact 12+ weeks

Contact

Wrightington Inpatient Physiotherapy Team: 01257 256307 (answer machine available)

Wrightington Outpatient Physiotherapy Team: 01257 256305

Ward One: 01257 256550



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