OS30 Revision Total Elbow Replacement

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What is a revision total elbow replacement?
A revision total elbow replacement is an operation to take out your old elbow replacement and put in a new one (see figure 1).

![Diagram of elbow replacement](image)

**Figure 1**
Elbow replacement in the right arm

Your surgeon has recommended a revision total elbow replacement operation. However, it is your decision to go ahead with the operation or not. This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your surgeon or the healthcare team.

What causes an elbow replacement to fail?
An elbow replacement can fail for the following reasons.
- Wearing out of the artificial joint – This releases tiny bits of plastic that can cause the joint to come loose from the bone.
- Infection in your elbow replacement – Infection can make your elbow replacement come loose from the bone.
- Dislocation (coming out of joint) – You may decide to have an operation to try to prevent this from happening again.
- Fracture (break) around your elbow replacement – This can happen if you fall heavily on your elbow.

These problems can make it difficult for you to use your arm, and sometimes cause pain. Your surgeon will discuss with you why they have recommended a revision total elbow replacement.

What are the benefits of surgery?
You should be able to move your arm more comfortably and do more of your normal activities.

Are there any alternatives to surgery?
Surgery is the only treatment for an elbow replacement that is failing.

If your elbow replacement is wearing out, your bones will become increasingly damaged over time. It is usually best to have the operation soon after your elbow replacement starts to loosen, to reduce the risk of complications.

If you have an infection in your elbow replacement, using antibiotics over the long term can sometimes prevent your elbow replacement from failing. However, the infection will not settle unless your elbow replacement is removed.

If your elbow replacement keeps coming out of joint, you can wear a brace to try to keep your elbow in place. A brace is large and often uncomfortable.

If you have a fracture around your elbow replacement, it is likely that your surgeon will recommend an operation. You can sometimes be treated with traction (using a heavy weight fixed to your arm to pull the bones into position until they heal). You will need to stay in hospital for at least six weeks and the fracture can take up to six months to heal.

What will happen if I decide not to have the operation?
If your elbow replacement is coming loose because of wear or infection, it will probably get more painful over time. The bone around a loose elbow replacement can get thin and it may break (fracture). You will need to have a major operation to fix the fracture and do your elbow replacement again.

If you have an infection in your elbow replacement, it can spread to other places around your body, including other artificial joints and vital organs.

Your surgeon will discuss with you what is likely to happen.

What does the operation involve?
The healthcare team will carry out a number of checks to make sure you have the operation you came in for and on the correct side. You can help by confirming to your surgeon and the healthcare team your name and the operation you are having.

Various anaesthetic techniques are possible. Your anaesthetist will discuss the options with you and recommend the best form of anaesthesia for you.
You may be given antibiotics during the operation to reduce the risk of infection.
Your surgeon will make a cut on the back of your elbow.
If your elbow is unstable and your elbow replacement itself is not worn, your surgeon may leave your elbow replacement and simply repair the ligaments around your elbow.
If the joint surfaces have become worn or your elbow replacement itself is coming loose, your surgeon will usually remove your elbow replacement and any cement. This often takes a long time and can be difficult.
Your surgeon will put in a new elbow replacement. This is fixed into the bone using acrylic cement.
Your surgeon will close your skin with stitches or clips. Your surgeon may place a splint or cast on your arm to begin with to make it more comfortable for you.
The type of surgery you need can be more complicated if the bone is thin or broken, or if you have an infection. Your surgeon will discuss with you what the operation is likely to involve.
   • If your bone is thin or has broken, they may need to build it up with a bone graft, special wire mesh and cables, or a metal cage.
   • If you have an infected elbow replacement, you may need to have two separate operations. In the first, your surgeon will remove your old elbow replacement, any cement and all infected material. They will put antibiotics in your elbow and you will also need antibiotic injections for several weeks. An infection may take two to three months to go completely. You will need a second operation to put in the new elbow replacement.

What should I do about my medication?
Let your doctor know about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies, dietary supplements, and medication you can buy over the counter.

What can I do to help make the operation a success?
If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.
Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.
You can reduce your risk of infection in a surgical wound.
   • In the week before the operation, do not shave or wax the area where a cut is likely to be made.
   • Try to have a bath or shower either the day before or on the day of the operation.
   • Keep warm around the time of the operation. Let the healthcare team know if you feel cold.

What complications can happen?
The healthcare team will try to make the operation as safe as possible but complications can happen. Some of these can be serious and can even cause death. You should ask your doctor if there is anything you do not understand. Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.

1 Complications of anaesthesia
Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation
   • Pain. The healthcare team will give you medication to control the pain and it is important that you take it as you are told so you can move about as advised. Your surgeon may use a splint or sling to help to control the pain.
   • Bleeding during or after the operation. You may need a blood transfusion.
   • Infection of the surgical site (wound). It is usually safe to shower after two days but you should check with the healthcare team. Keep your wound dry and covered. Let the healthcare team know if you get a high temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may need another operation.
   • Unsightly scarring of your skin, although revision elbow-replacement wounds usually heal to a neat scar.
• Blood clot in your leg (deep-vein thrombosis – DVT). This can cause pain, swelling or redness in your leg, or the veins near the surface of your leg to appear larger than normal. The healthcare team will assess your risk. They will encourage you to get out of bed soon after the operation and may give you injections, medication, or special stockings to wear. Let the healthcare team know straightaway if you think you might have a DVT.

• Blood clot in your lung (pulmonary embolus), if a blood clot moves through your bloodstream to your lungs. If you become short of breath, feel pain in your chest or upper back, or if you cough up blood, let the healthcare team know straightaway. If you are at home, call an ambulance or go immediately to your nearest Emergency department.

• Chest infection. You may need antibiotics and physiotherapy.

• Heart attack (where part of the heart muscle dies). A heart attack can sometimes cause death.

• Stroke (loss of brain function resulting from an interruption of the blood supply to your brain). A stroke can sometimes cause death.

3 Specific complications of this operation

• Damage to nerves around your elbow, leading to weakness, numbness or pain in your hand and weakness of movement of your fingers.

• Infection, which can result in loosening and failure of your elbow replacement over a period of a few months (risk: less than 1 in 10). You will usually need one or more further operations to control the infection.

• Loosening without infection. You may need another operation to do your elbow replacement again (risk: 1 in 10 in the first eight years).

• Dislocation of your elbow replacement (risk: less than 2 in 100 in one year). You will usually need a procedure under an anaesthetic to push your elbow back into place (closed reduction). You may need another operation if it keeps on happening.

• Fracture (break) around your elbow replacement during or after the operation. The risk is higher if you have weak bones. You may need another operation to treat the fracture and your elbow replacement may fail.

• Severe pain, stiffness and loss of use of your hand (complex regional pain syndrome). This is rare and the cause is not known. You may need further treatment including painkillers and physiotherapy. Your hand can take months or years to improve.

How soon will I recover?

• In hospital

After the operation you will be transferred to the recovery area and then to the ward. You will usually have an x-ray to check the position of your elbow replacement.

The physiotherapist will help you to start moving and bending your elbow, usually after six to eight days. If your elbow is unstable, or if your surgeon had to repair ligaments or your surgery was complicated, you may need to rest your elbow for up to six weeks before you start physiotherapy. Keep your wound dry for four to five days, and use a waterproof dressing when you have a bath or shower.

The healthcare team will tell you if you need to have any stitches or clips removed, or dressings changed.

You should be able to go home after two to five days. However, your doctor may recommend that you stay a little longer.

If you are worried about anything, in hospital or at home, contact the healthcare team. They should be able to reassure you or identify and treat any complications.

• Returning to normal activities

To reduce the risk of a blood clot, make sure you follow carefully the instructions of the healthcare team if you have been given medication or need to wear special stockings.

The healthcare team will tell you when you can return to normal activities. To reduce the risk of problems, it is important to look after your new elbow as you are told.

You may need to use a support for your elbow for six weeks. It often takes longer to recover from a revision elbow replacement than your first elbow replacement.

If your elbow replacement does not bend well, your surgeon may need to examine your elbow under an anaesthetic (risk: 5 in 100). Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, ask the healthcare team or your GP for advice.

Do not drive until you are confident about controlling your vehicle and always check your insurance policy and with your doctor.
The future
Do not play contact sports, use heavy tools such as a hammer, or do any activities that may involve you falling.
Most people make a good recovery and most revision total elbow replacements work well. It is important to follow the advice the physiotherapist gives you about exercises to strengthen your arm muscles.
A revision total elbow replacement can fail with time, if it wears out, or the original problem comes back. You may need another operation (risk: 1 in 10 by 10 years after the operation).

Summary
If your original elbow replacement fails, you can usually have another operation to do your elbow replacement again. If this revision operation is successful, you should be able to continue many of your normal activities.
Surgery is usually safe and effective but complications can happen. You need to know about them to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Keep this information leaflet. Use it to help you if you need to talk to a healthcare professional.

Acknowledgements
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