Revision Knee, Hip and Shoulder Replacement

Joint replacement is one of the most successful procedures in all of medicine. However, on occasion, a joint may fail and a revision is required.

A failing replacement implant normally reveals itself as pain, swelling or stiffness around the joint. Decades ago, this was normally attributed to the artificial joint's materials breaking down – but advances in material science, plastic compounds and metal alloys have made a huge difference.

There are many different revision surgery procedures. A great deal depends on which joint is causing trouble. Most joint replacements involve two or three components, and when a revision is required, in most cases, only one implant or component of the prosthesis needs attention.

There are also many different reasons for the replacement joint failing. The most common of these is a procedure that's been carried out when the patient was young, and they've simply grown out of the implant. Here is a brief description of other reasons for needing a joint revision procedure.

Implant loosening and wear

Often, especially with a replacement knee implant, loosening is caused by high impact activities or excessive body weight. This can lead to wearing down of the plastic spacer between the metal alloy components of the joint.

Infection

This is a potential complication in any surgical procedure, including a joint replacement. Infection may occur while you are in hospital or after you go home. It may even occur years later.

If an artificial joint becomes infected, it may become stiff and painful. The implant may begin to lose its adhesion to the bone. Even if the implant remains properly fixed to the bone, pain, swelling and drainage from the infection usually make revision surgery necessary.

Instability

This reason for a revision normally relates to a hip or knee procedure. If the ligaments around the joint become damaged or improperly balanced, your hip or knee may become unstable.

Because most implants are designed to work with the patient's existing ligaments, any changes to those ligaments may prevent an implant from working properly.

Patients experiencing this failing of the joint may experience recurring swelling and a sense that your hip or knee is 'giving way'.

There are effective nonsurgical treatments for hip and knee instability, such as bracing or physical therapy, which we will always recommend before a revision surgical procedure.

Stiffness

In the vast majority of cases, a total joint replacement completely restores your mobility. However, there are rare occasions when the replacement may not help you achieve the range of motion that is needed to perform your everyday activities.

This may be the result of excessive scar tissue that has built up around the joint, and if this occurs, we often recommend 'manipulation under anesthesia'.

In this procedure, you are given anethesia so that your doctor can fully extend and bend the joint in an attempt to break up the scar tissue. In most cases, this procedure will successfully extend your range of motion. Sometimes, however, the joint remains stiff.

If the scar tissue is extensive, or the position of the components in the joint is limiting your range of motion then revision surgery may be needed.

Fractures

A periprosthetic fracture is a break in one of the bones that hold the components of a total joint replacement. These fractures are most often the result of a fall, and usually require revision surgery.

In determining the extent of the revision needed, we will consider several factors. These include; the quality of the remaining bone, the type and location of the fracture, and whether the implant has been loosened.

When the bone is shattered or weakened from osteoporosis to the point where an existing component cannot do its job, the damaged section of bone may need to be completely replaced with a larger revision component.

Procedure

Revision total joint replacements are more complex and take longer to perform than primary joint replacements. In some of the more complex cases the surgery may take several hours.

To begin, your surgeon will follow the line of the incision made during your primary joint replacement. However, this incision may be longer than the original, to allow the old components to be removed.