JOINT REPLACEMENT SURGERY

Health Information Basics for You and Your Family

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases

For Your Information

This publication contains information about medications used to treat the health condition discussed here. When this publication was printed, we included the most up-to-date (accurate) information available. Occasionally, new information on medication is released.

For updates and for any questions about any medications you are taking, please contact the U.S. Food and Drug Administration toll free at 888–INFO–FDA (888–463–6332) or visit its website at www.fda.gov. For additional information on specific medications, visit Drugs@FDA at www.accessdata.fda.gov/scripts/cder/drugsatfda. Drugs@FDA is a searchable catalog of FDA-approved drug products.

For updates and questions about statistics, please contact the Centers for Disease Control and Prevention's National Center for Health Statistics toll free at 800–232–4636 or visit its website at www.cdc.gov/nchs.

For more copies, contact:
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Information Clearinghouse
National Institutes of Health (NIH)
1 AMS Circle
Bethesda, MD 20892–3675

You can find this publication on the NIAMS website at **www.niams.nih.gov.**

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and Skin Diseases

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What Is Joint Replacement Surgery?

Joint replacement surgery is removing a damaged joint and putting in a new one. A joint is where two or more bones come together, like the knee, hip, and shoulder. The surgery is usually done by a doctor called an orthopaedic (or-tho-PEE-dik) surgeon. Sometimes, the surgeon will not remove the whole joint, but will only replace or fix the damaged parts.

The doctor may suggest a joint replacement to improve how you live. Replacing a joint can relieve pain and help you move and feel better. Hips and knees are replaced most often. Other joints that can be replaced include the shoulders, fingers, ankles, and elbows.

What Can Happen to My Joints?

Joints can be damaged by arthritis and other diseases, injuries, or other causes. Arthritis or simply years of use may cause the joint to wear away. This can cause pain, stiffness, and swelling. Diseases and damage inside a joint can limit blood flow, causing problems in the bones, which need blood to be healthy, grow, and repair themselves.

What Is a New Joint Like?

A new joint, called a prosthesis (praas-THEE-sis), can be made of plastic, metal, or ceramic parts. It may be cemented into place or not cemented, so that your bone will grow into it. Both methods may be combined to keep the new joint in place.

A cemented joint is used more often in older people who do not move around as much and in people with “weak” bones. The cement holds the new joint to the bone. An uncemented joint is often recommended for younger, more active people and those with good bone quality. It may take longer to heal, because it takes longer for bone to grow and attach to it.

New joints generally last at least 10 to 15 years. Therefore, younger patients may need to have the same damaged joint replaced more than once.

Do Many People Have Joints Replaced?

Joint replacement is becoming more common. More than 1 million Americans have a hip or knee replaced each year. Research has shown that even if you are older, joint replacement can help you move around and feel better.

Any surgery has risks. Risks of joint surgery will depend on your health and the health of your joints before surgery and the type of surgery done. Many hospitals and doctors have been replacing joints for several decades, and this experience results in better patient outcomes. For answers to their questions, some people talk with their doctor or someone who has had the surgery. A doctor specializing in joints will probably work with you before, during, and after surgery to make sure you heal quickly and recover successfully.

Do I Need to Have My Joint Replaced?

Only a doctor can tell if you need a joint replaced. He or she will look at your joint with an x-ray machine or another machine. The doctor may put a small, lighted tube (arthroscope) into your joint to look for damage. A small sample of your tissue could also be tested.

After looking at your joint, the doctor may say that you should consider exercise, walking aids such as braces or canes, physical therapy, or medicines and vitamin supplements. Medicines for arthritis include drugs that reduce inflammation. Depending on the type of arthritis, the doctor may prescribe corticosteroids or other drugs.

However, all drugs may cause side effects, including bone loss.

If these treatments do not work, the doctor may suggest an operation called an osteotomy (aas-tee-AAHT-oh-me), where the surgeon "aligns" the joint. Here, the surgeon cuts the bone or bones around the joint to improve alignment. This may be simpler than replacing a joint, but it may take longer to recover. However, this operation has become less common.

Joint replacement is often the answer if you have constant pain and can't move the joint well—for example, if you have trouble with things such as walking, climbing stairs, and taking a bath.

What Happens During Surgery?

First, the surgical team will give you medicine so you won't feel pain (anesthesia). The medicine may block the pain only in one part of the body (regional), or it may put your whole body to sleep (general). The team will then replace the damaged joint with a new man-made joint.

Each surgery is different. How long it takes depends on how badly the joint is damaged and how the surgery is done. To replace a knee or a hip takes about 2 hours or less, unless there are complicating factors. After surgery, you will be moved to a recovery room for 1 to 2 hours until you are fully awake or the numbness goes away.

What Happens After Surgery?

With knee or hip surgery, you will probably need to stay in the hospital for a few days. If you are elderly or have additional disabilities, you may need to spend several weeks in an intermediate-care facility before going home. You and your team of doctors will determine how long you stay in the hospital.

After hip or knee replacement, you will often stand or begin walking the day of surgery. At first, you will walk with a walker or crutches. You may have some temporary pain in the new joint because your muscles are weak from not being used. Also, your body is healing. The pain can be helped with medicines and should end in a few weeks or months.

Physical therapy can begin the day after surgery to help strengthen the muscles around the new joint and help you regain motion in the joint. If you have your shoulder joint replaced, you can usually begin exercising the same day of your surgery! A physical therapist will help you with gentle, range-of-motion exercises. Before you leave the hospital, your therapist will show you how to use a pulley device to help bend and extend your arm.

Will My Surgery Be Successful?

The success of your surgery depends a lot on what you do when you go home. Follow your doctor's advice about what to eat, what medicines to take, and how to exercise. Talk with your doctor about any pain or trouble moving.

Joint replacement is usually a success in most people who have it. When problems do occur, most are treatable. Possible problems include:

- **Infection.** Areas in the wound or around the new joint may get infected. It may happen while you're still in the hospital or after you go home. It may even occur years later. Minor infections in the wound are usually treated with drugs. Deep infections may need a second operation to treat the infection or replace the joint.

- **Blood clots.** If your blood moves too slowly, it may begin to form lumps of blood parts called clots. If pain and swelling develop in your legs after hip or knee surgery, blood clots may be the cause. The doctor may suggest drugs to make your blood thin or special stockings, exercises, or boots to help your blood move faster. If swelling, redness, or pain occurs in your leg after you leave the hospital, contact your doctor right away.
- **Loosening.** The new joint may loosen, causing pain. If the loosening is bad, you may need another operation to reattach the joint to the bone.
- **Dislocation.** Sometimes after hip or other joint replacement, the ball of the prosthesis can come out of its socket. In most cases, the hip can be corrected without surgery. A brace may be worn for a while if a dislocation occurs.
- **Wear.** Some wear can be found in all joint replacements. Too much wear may help cause loosening. The doctor may need to operate again if the prosthesis comes loose. Sometimes, the plastic can wear thin, and the doctor may just replace the plastic and not the whole joint.
- **Nerve and blood vessel injury.** Nerves near the replaced joint may be damaged during surgery, but this does not happen often. Over time, the damage often improves and may disappear. Blood vessels may also be injured.

As you move your new joint and let your muscles grow strong again, pain will lessen, flexibility will increase, and movement will improve.

What Research Is Being Done?

Studies of the various forms of arthritis, the most common reason for joint replacement surgery, are helping doctors better understand these diseases and develop treatments to stop or slow their progression and damage to joints.

Scientists are studying replacement joints to find out which are best to improve movement and flexibility. They are also looking at new joint materials and other ways to improve surgery. For example, researchers are looking for ways to reduce the body's inflammatory response to the artificial joint components, and are trying to learn why some types of prostheses are more successful than others.

Other scientists are also trying to find out why some people who need surgery don't choose it. They want to know what things make a difference in choosing treatment, in recovery, and in well-being.

More information on research is available from the following websites:

- **National Institutes of Health (NIH) Clinical Research Trials and You** helps people learn more about clinical trials, why they matter, and how to participate. Visitors to the website will find information about the basics of participating in a clinical trial, first-hand stories from clinical trial volunteers, explanations from researchers, and links on how to search for a trial or enroll in a research-matching program.
  Website: www.nih.gov/health/clinicaltrials

- **ClinicalTrials.gov** offers up-to-date information for locating federally and privately supported clinical trials for a wide range of diseases and conditions.
  Website: www.clinicaltrials.gov

- **NIH RePORTER** is an electronic tool that allows users to search a repository of both intramural and extramural NIH-funded research projects from the past 25 years and access publications (since 1985) and patents resulting from NIH funding.
  Website: www.projectreporter.nih.gov

- **PubMed** is a free service of the U.S. National Library of Medicine that lets you search millions of journal citations and abstracts in the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and preclinical sciences.
  Website: www.ncbi.nlm.nih.gov/pubmed

Where Can People Find More Information About Joint Replacement Surgery?

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Information Clearinghouse

National Institutes of Health
1 AMS Circle
Bethesda, MD 20892–3675
Phone: 301–495–4484
Toll free: 877–22–NIAMS (226–4267)
TTY: 301–565–2966
Fax: 301–718–6366
Email: NIAMSinfo@mail.nih.gov
Website: www.niams.nih.gov

If you need more information about available resources in your language or another language, please visit our website or contact the NIAMS Information Clearinghouse.

Other Resources

Office of Disease Prevention
Website: www.prevention.nih.gov

American Academy of Orthopaedic Surgeons
Website: www.aaos.org

American College of Rheumatology
Website: www.rheumatology.org

Arthritis Foundation
Website: www.arthritis.org

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Do You Have a Joint-Related Condition?

You may be able to help scientists learn more about these conditions.

For information about research projects across the country, call:

NIAMS

Toll free: 877–22–NIAMS (226–4267)
Email: NIAMSinfo@mail.nih.gov

You could make a difference!

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The mission of the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), a part of the U.S. Department of Health and Human Services' National Institutes of Health (NIH), is to support research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases; the training of basic and clinical scientists to carry out this research; and the dissemination of information on research progress in these diseases. The NIAMS Information Clearinghouse is a public service sponsored by the NIAMS that provides health information and information sources. Additional information can be found on the NIAMS website at **www.niams.nih.gov.**

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