



What Is Osteotomy?

An osteotomy is any surgery that cuts and reshapes your bones. You may need this type of procedure to repair a damaged joint. It's also used to shorten or lengthen a deformed bone that doesn't line up with a joint like it should.

You don't need to be very sick or old to have an osteotomy. Many young, healthy people have this surgery as a way to postpone hip or knee replacement for many years.

Types of Osteotomy

This procedure can fix problems in many different bones and joints. For instance:

- **Hip:** During surgery, a doctor will reshape your hip socket so it better covers the ball of your hip joint.
- **Knee:** A kneecap that's not quite straight can be painful, and arthritis can make it worse. During a knee osteotomy, either your tibia (upper shinbone) or femur (lower thighbone) are cut and reshaped. This takes pressure off the damaged side of your knee joint.
- **Spine:** A wedge-shaped piece of bone from a section of your spine can be removed to correct a swayback or reduce a hunchback.
- **Jaw:** The bones in some people's faces don't line up with the bite of their teeth. A mandibular (lower jaw) osteotomy moves your lower jaw into a new position.
- **Big toe:** A segment of bone can be removed from your big toe to straighten it and stop it from jamming into your other toes.
- **Chin:** Plastic surgeons use osteotomy to narrow a broad or square chin.

How's an Osteotomy Done?

It can be a complex surgery. In many cases, you may need to go into the hospital. Or, you might be able to choose a medical center that does this type of procedure often.

Your doctor will discuss your anesthesia options with you ahead of time. Many people have general anesthesia, which means you'll be asleep during the surgery. If the osteotomy is going to be done on a bone in the lower half of your body, you may be able to choose a spinal tap instead. This allows you to stay awake for the surgery but

feel numb below your waist.

For minor procedures (such as on your toe), you may get local anesthesia. That only numbs the site of the surgery.

During the osteotomy, a surgeon will make a small cut in your skin. He'll use special guide wires to measure your bone, then take out a section using a special surgical saw.

Next, he'll fill this new, open space. This can be done in a few different ways. Tiny screws and a metal plate are often used to hold bones in place. These may be taken out once your bones heal together, but sometimes they're permanent.

Your surgeon could also do a bone graft to fill the space. He'll take a wedge of bone from your pelvis or use one from a bone bank (a place that stores donated bones to be used in surgeries). Metal hardware holds these in place, as well.

Although it depends on the type of surgery you have, you'll likely need to spend a few nights in the hospital.

How Is the Recovery?

Healing from an osteotomy takes a while. The site of the surgery will be very sore. Plus, to allow your bone to heal, you shouldn't put any pressure on it right away.

For instance, if you have a knee or pelvic (hip) osteotomy, you won't be able to walk for several months. You'll need to use crutches. Your doctor will also want you to have physical therapy that can help you strengthen your leg muscles and regain your balance.

After a jaw osteotomy, you may need to be on an all-liquid diet for 6 weeks. In some cases, your jaw may be wired shut during this time. If an osteotomy is done on your big toe, you won't be able to wear shoes or drive for at least 2 -- and sometimes as many as 6 -- weeks.

If you're overweight and have a high body mass index (BMI), it might take longer for you to heal. Smoking can slow the healing process, too. Nicotine prevents your bones from fusing as well as they should.

Are There Any Risks?

Each type of osteotomy comes with a slightly different set of risks. In general, problems you may have include:

- Issues with anesthesia
- Blood clots
- Infection

- Joint stiffness
- Nerve damage
- Scar tissue
- Bones that don't heal as expected
- Chronic pain
- Artery damage

If you have questions or concerns about an osteotomy, make sure to speak with your surgeon.

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Sources ^

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