



Vasu Pai D orth, MS, National Board [orth],MCh, FRACS, FICMR

Finger Fusion Surgery

Arthritis of the finger joints may be surgically treated with a fusion procedure.

Fusion keeps the problem joints from moving so that pain is eliminated.

Main purpose of this surgery is to improve function of the hand

Once fused loss of movement in the joint is permanent

Smoking delays healing of fusion

What parts of the finger are involved?

The main knuckle joint is the **metacarpophalangeal joint** (MCP joint).

Each finger has **three phalanges**, separated by two interphalangeal joints (IP joints).

The one closest to the MCP joint (knuckle) is called the proximal IP joint (PIP joint). The joint near the end of the finger is called the distal IP joint (DIP joint).

What happens during the operation?

Surgery may be done using a general anesthetic

Incision is made on the back part of the finger over the surface of the joint that is to be fused

Special care is taken not to damage the nearby nerves going to the finger.

The **articular cartilage is removed** from both joint surfaces to leave two surfaces of raw bone.

The surgeon places a **metal pin** or a screw through the center of both bones and then connects the cone and socket snugly together

Hand is then placed in a cast until the bones completely fuse together. This takes about six weeks.



What might go wrong?

Infection : < 1%

Nerve Damage

It is uncommon to have permanent injury to either the nerves or the blood vessels, but it is possible.

Nonunion

Sometimes the finger bones do not fuse as planned. This is called a nonunion, If the motion from a nonunion continues to cause pain, you may need a second operation to try to get the bones to completely fuse. This may mean adding a bone graft and making sure that any metal pins that have been used are holding the bones still to allow the fusion to occur.

What should I expect during my rehabilitation period?

As mentioned, you'll wear a cast on your arm and hand for about six weeks

When the cast is removed, you may have stiffness in the joints closest to the fused joint. If you have pain or stiffness that doesn't improve, you may need a physical or occupational therapist to direct your recovery program.

Then you'll begin gentle range-of-motion exercise for the joints nearest the fusion. Strengthening exercises are used to give added stability around the finger joint.