

## **BroadcastMed | Knee Replacement Surgery**

So the most common symptom for-- that patients are going to have before considering a knee replacement is really going to be pretty severe knee pain that's impacting their quality of life in their activities of daily living.

So a lot of times, patients will come with knee pain, and it's up to their orthopedic surgeon to evaluate the patient, evaluate their x-rays, make sure that you've maximized the conservative treatment options, including physical therapy, injections, and other medications, before considering a knee replacement.

And once you've exhausted those options and the patient's x-rays and physical findings are consistent with this being the problem, knee replacement surgery is a very good option to improve pain and quality of life.

The most important step in the procedure happens before the operating room.

It involves preparation, setting expectations, and helping the patient understand what they're going to undergo.

We use a digital templating system that we look at all of the cuts to make sure that we restore the accurate anatomy before undertaking a knee replacement.

So a lot of the work goes into this procedure before even the patient gets into the operating room.

So after we've done our preoperative prep work, most of the time we'll get a spinal or general anesthesia with our anesthesia team, and oftentimes we'll do a preoperative nerve block as well.

The patient will get positioned on the operating room table, prepped and draped, and then we begin the surgical dissection and exposure of the knee.

Once the knee is exposed, we typically will make cuts in the distal femur first to restore the extension portion of the distal femur.

And that really sets up how much you're going to cut off of the rest of the femur, and you size it at that point.

Once you've made your appropriate cuts using your templated cutting jigs, you'll go to the tibia, and then you'll make your tibial cuts.

Then, once you've made all your bone cuts, it's important to check your soft tissues and make sure that you're balanced, meaning your soft tissue tension is appropriate, and extension and flexion.

That involves examining the knee once you've made your cuts with certain trials that will help you understand if you've done a good job with your cuts and your soft tissue balancing.

Once you're happy with your cuts and your soft tissue balance, you typically will trial the knee with trial components.

And then the majority of the time we'll use cement, or occasionally we'll use a pressed fit knee and get the components secured onto the upper part of the shin bone and the end of the thigh bone.

And then once you have that done and the components are secured in place, usually we'll trial again to make sure that the plastic piece that's the articulating bearing surface of a knee-- those come in different sizes.

And so then you can really fine tune and dial in the last bit of balancing that you need through the variable sized plastic pieces.

And then we'll usually irrigate the wound, take the knee through a range of motion, make sure that you've got adequate range of motion, that the patella or the kneecap tracks well, and that your components are positioned correctly.

And then you usually will close the capsule of the joint, and then you'll close the subcutaneous tissue and skin and place a dressing on.

Post-operative recovery begins that day.

So we'll get patients up that same day with our physical therapist and begin working on weight bearing and range of motion.

Some of the ways we use our anesthesia colleagues will allow us to get patients up early and mobilize them early, and we firmly believe that that helps with outcomes.

As a referral center, we end up revising a lot of hips and knees that are difficult or challenging.

So some of our joint placement surgeons here have really become experts in managing complex problems.

I think the main reason is that every single patient that gets a hip or knee replacement gets reviewed by our multidisciplinary team which includes all of the joint surgeons, the reps that are here, the nurses that will help take care of them, the residents that are involved in their case.

We make sure that their indications are appropriate, and that they've maximized their conservative treatment, and that their treatment plan is guideline directed and appropriate.

And we're going to make sure that they have the best outcome that they can possibly have.