PARTIAL KNEE REPLACEMENT

Partial knee replacement or unicompartmental knee arthroplasty is a procedure that deals with degenerative disease confined to one of the three compartments of the knee joint.

Most commonly, the medial or inner half of the joint deteriorates to the point that a situation arises where “bone is rubbing against bone”. On occasion, this process will happen in the outside or lateral compartment. Rarer still, the joint between the knee cap and front of the thigh bone will be affected. In a partial joint replacement only the affected portion of the joint is replaced.

The advantages of this procedure compared to a total knee replacement is a shorter recovery, less tendency to bleed, less tendency to develop blood clots and fewer infections. A well functioning partial knee replacement feels more like a normal knee than the best functioning total knee replacement. This procedure is done as an outpatient operation. It generally takes anywhere from 30-60 minutes to do.

Prerequisites

In order to be considered for this operation, the patient must have degenerative disease and not inflammatory arthritis. Patients with psoriatic arthritis or rheumatoid arthritis or similar conditions are not candidates. The knee must be stable (i.e., the cruciate ligaments are intact), and the deformity must be correctible.

Assessment

Physical exam in the office should reveal that most of the findings are confined to one portion of the joint. X-rays must confirm this. Stress x-rays done with the patient supine and with the knee bent 20 degrees should show that the deformity corrects. And finally, I prefer to do an MRI to make sure there are no subtle arthritic changes that are missed in the other compartments.

Some physicians prefer to do arthroscopic knee surgery prior to definitive management. I try to avoid this if possible. I would rather do one operation than two.

Before Surgery

Once the decision is made to proceed with the operation, your medical doctor should provide clearance. This amounts to the doctor giving you a “clean bill of health” so we can proceed with the surgery. Any weight loss that the patient can manage is helpful.

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Pre-operative testing will be prescribed as indicated. Most importantly, the patient needs to precondition. I suggest that the patient do 20-30 minutes of cardiovascular exercise daily. Cycling, swimming, water aerobics, walking, and rowing are all are acceptable. Running is not a good idea as it will exacerbate the symptoms.

I also ask patients to do a minimum of 300 6 inch supine straight leg raises daily. This exercise is the height of simplicity. Lie down flat on your back, keep your legs straight, lift the leg up and down six inches. Do as many as you can do, rest a minute, do as many as you can do, rest a minute, repeat this cycle until you have completed 300 leg raises.

Surgery

The surgery is done either in an outpatient facility or at the hospital as an outpatient. Medicare does not recognize this as an inpatient procedure unless there are other severe medical problems. They will allow a 23 hour stay, though this is rarely necessary. I prefer to do this operation under a general anesthesia. The patient is seen in the recovery room by physical therapy and mobilized immediately. The vast majority of patients do so well they are discharged immediately from recovery.

If they are in the hospital as an outpatient and discharge is not possible from recovery, they will be admitted to the floor. They will then be seen again by physical therapy. If cleared, they will be discharged from the floor that night. If not cleared that night, they can be kept in the hospital overnight and seen again by physical therapy; they will be discharged the following morning. This is rarely necessary.

The location of the surgical procedure is determined by: patient preference, patient insurance, Medicare status (must be done in a hospital facility for Medicare patients) and co-existing medical problems make it more likely that surgery in the hospital would be recommended.

Post Operative Course

After immediate mobilization, the patient will go to outpatient physical therapy. Usually they will go three times a week for 6-8 weeks. During this period of time, I encourage the patient to exercise on their own as well.

Generally, I suggest that they spend 10-15 minutes 3-4 times a day bending and straightening the knee. I suggest that they do at least 300 straight leg raises daily and most importantly, I suggest they relax with their knee completely straight for 30 minutes 4 times daily.

Most patients are able to return to light activities within several days. Sedentary work is possible within 7-10 days. Heavy work such as manual labor, usually takes 8-10 weeks.

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