

## **Conservative Treatments Available for Patients with Knee Arthritis**

### General Information

Degenerative arthritis, or osteoarthritis, of the knees is a condition in which the cartilage of the joint is worn away and roughened so that the joint does not run smoothly. The roughened cartilage surfaces can wear away down to bone in more severe cases. This wearing away of cartilage can be very painful and can cause stiffness, swelling, and a limp. The pain can be a result of inflammation from debris within the joint, increased pressure on underlying bone, microscopic fractures of the bones, loss of blood supply to hardened bone, bone spurs stretching ligaments and nerves, or muscle spasm.

Ultimately, the only "cure" for severe degenerative arthritis of the knees is a total knee replacement. Although knee replacement surgery alleviates the pain of osteoarthritis and leaves most patients extremely happy with their knees, it requires a great deal of work through rehabilitation to achieve this goal. For this reason it is extremely important that you have exhausted other treatment options and are mentally ready to undergo this surgery. It is important to note that while osteoarthritis is not life threatening, it is "quality of life" threatening. When you can no longer function in life without disabling pain, it may be time to consider surgery.

This sheet will outline many of the treatment options that are available for you to try short of knee replacement surgery. It will also outline other surgical treatments that might be available to you depending upon your age and the severity of your arthritis. Your physician can further discuss these options with you.

### Conservative Treatment Options

- I. Over the Counter Medications
  - a. The following medications are available over the counter and should be tried for a period of about 4 weeks before you decide if they are of any benefit.
    - i. Tylenol – Take according to directions for relief of pain.
    - ii. OTC Anti-inflammatories (Aspirin, Ibuprofen, Advil, Aleve, Ketoprofen): These are over-the-counter non-steroidal anti-inflammatory medications that can be taken to reduce the inflammation and pain of arthritis. You can take these at the same time you are taking your Tylenol.
    - iii. Glucosamine Chondroitin Sulfate – These supplements are somewhat controversial as to whether or not they are helpful. Many patients, however, do state that they have achieved nice pain relief while using them. It is recommended that you take 1500mg. of glucosamine and 1200 mg of chondroitin each day. We

recommend that you try this for a period of about two months before deciding whether it is of benefit to you. You may not realize that it is helping you until you stop taking it. If your pain increases after discontinuing this supplement, you may want to resume taking it.

## II. Prescription Anti-inflammatory Medications

- a. These medications are dispensed only by prescription. There are many alternative anti-inflammatory medication families available for the treatment of knee arthritis. Your doctor, with your input, will select the most appropriate one.

## III. Topical Medications

- a. These substances are absorbed through the skin and can help decrease the pain of osteoarthritis.
  - i. Capsaicin Cream – This is a "hot pepper" cream that is rubbed into the skin of your knees. After the “burn” has subsided, you knee pain may be decreased. Make sure that you wash your hands after application, and do not touch your eyes or mucous membranes with your fingers as it will burn these areas.
  - ii. Lidoderm patches – These are available only with a prescription and deliver a safe amount of lidocaine (numbing medication) thru the skin. They are to be worn for a period of twelve hours and then removed for the next twelve hours. This treatment can be repeated daily during an arthritic flare.
  - iii. Topical Anti-Inflammatories – These are available only with a prescription. The anti-inflammatories are carried through the skin to your painful joints with special solvents. They should not be used on open areas of the skin. You should wash your hands after application before touching your eyes or other mucus membranes.
  - iv. Compounding Topical Medications: At times, your doctor may prescribe a mixture of anti-inflammatory, pain medication, and nerve pain medication for your knee pain.

## IV. Physical Treatments

- a. Exercise:
  - i. Exercise is a vital part of osteoarthritis management. The right type of exercise will benefit your painful joints and help maintain your overall health. If you are able, your exercise program should include some form of aerobic exercise (walking, biking, swimming, or exercise machines) that does not seem to irritate your arthritis. In addition, specific strengthening exercises to strengthen your quadricep muscles can improve your symptoms. (See “Phase 2 knee exercises”)

- ii. During times of increased pain from arthritic flare, you should limit your exercise to gentle range of motion exercises, isometric exercises to maintain muscle tone, or aqua therapy (giving you the benefit of buoyancy, placing less stress on the knees.)
- b. Heat or ice – Either one of these modalities may be helpful in alleviating your pain.
- c. Weight loss – This can be helpful in prolonging the life of your knee.
- d. Assistive devices – Such as a cane or walker can help to relieve the pain of bearing weight on your knee.
- e. Braces – There are many types of braces available, some of which may or may not be covered by insurance. You may want to try an ace wrap or an elastic bandage for support and warmth for your knee. These are available over the counter at the drug store. There are more elaborate braces that can be obtained from a brace company if your doctor feels one of these might help you.

#### V. Injections

- a. Cortisone injections – This medicine is best used for arthritic flares. It is a very strong anti-inflammatory medication. They can give short or longer term relief, depending upon the situation with your knee at the time of the injection.
- b. Viscosupplementation injections (e.g. Synvisc, Euflexxa, Hyalgan, Orthovisc, Monovisc, and Gel One) – These injections involve placing a joint lubricant in the knee over one to five weekly visits. A number of patients get nice relief from these injections. They can be repeated every six months.
- c. Platelet rich plasma (PRP) injections – A sample of your blood is taken, spun down on a centrifuge, and the plasma part of your blood can be injected into your knee. This injection is presently experimental and its benefits are unclear.
- d. Stem Cell injections – At this time there is no evidence to suggest that stem cell injections are of any benefit in an arthritic knee. There are anecdotal reports of benefits, but not strong scientific information.

#### VI. Surgical Options

- a. Arthroscopy – Arthroscopy has a limited role in the treatment of osteoarthritis. If you have prominent mechanical symptoms such as catching, locking, giving-way, snap-crackle-pop-type sensation, then arthroscopy may be helpful. It is useful for removing torn cartilage, smoothing off rough cartilage, and removing bone spurs. It does not cure your arthritis.
- b. Cartilage Transfer and Cartilage Growth procedures – For very isolated areas of arthritis, most frequently due to injury, these treatment options are available. For typical wear and tear type arthritis, these are not good options.



- VII. Open surgical procedures – If you get to the point where all of these above conservative treatments have failed, a discussion with an orthopedic surgeon can help you decide between a partial knee replacement, an osteotomy, or a total knee replacement.