

Orthopedic Expert . Gregory M Martin, MD

Help for Knee Pain Due to Arthritis

nee pain due to arthritis is one of the most common causes of disability in America and affects millions of people, both young and old. Although traumatic situations and systemic diseases can cause arthritis, by far the most common cause is wear and tear of the joint. This loss of the cushion (cartilage) in the joint is called osteoarthritis, commonly referred to as "bone-on-bone." This condition is caused by numerous factors including people living longer, being more active, obesity, as well as a genetic component. In the early stages, there may be some occasional pain and/or stiffness in the knee. It can come and go. As the condition progresses, it can lead to severe pain, swelling, stiffness, and deformity of the joints (becoming bow-legged or knock-kneed).

Currently, there is no known cure for osteoarthritis. But fortunately in this day and age, people do not have to accept the pain and decrease in quality of life that comes along with this crippling condition. There are some basic tried and true things that can be done to help, as well as some exciting cutting edge treatments now available.

The best early things to do to diminish symptoms and potentially thwart the course of the disease are exercise and weight loss. Anything that decreases the stress on the joint can reduce the pain. By having strong muscles around the knee, it can alleviate some of the force felt by the knee. With normal activity, the knee can see about 4 pounds of pressure for every pound of weight. So a 25-pound weight loss can feel like 100 pounds off the knee.

When these early modifications are not enough, people usually turn to medicines. These can include over-the-counter pain relievers (e.g., Tylenol) and anti-



inflammatory medicines (e.g., Advil, Alleve, Motrin), and a whole range of prescription drugs. These can be helpful with the symptoms, but also have potential risks and could affect other parts of your body. It is important before taking any of these to discuss with your physician and pharmacist as well as read the warning labels. There are also numerous creams and ointments which may be helpful including mentholated products and even hot pepper creams (capsaicin).

All the drug store shelves are filled with joint supplements which usually will contain glucosamine and chondroitin, amongst other ingredients. There is mixed evidence whether these are helpful with symptoms, but they do not regrow cartilage or repair the joint. Physicians, usually orthopedic surgeons and rheumatologists, can offer injections which may help dramatically at least for a while. These include cortisone (a strong anti-inflammatory) and hyaluronic acid injections (a gel commonly referred to as "chicken shots" due to some of the products originating from rooster combs).

When all these treatments fail, and there is debilitating pain, decreased activity and quality of life is when surgical options are appropriate. Surgery is a serious decision and risks and benefits should be carefully thought through with an orthopedic surgeon. Arthroscopy, a.k.a. "keyhole surgery," has a very limited role and cannot replace the cartilage that has been lost. Total knee replacements, where a metal and plastic implant is inserted, have been performed successfully now for about 30 to 40 years and have helped millions of people regain their lives. One recent study demonstrated about 1 in 20 Americans over the age of 50 years is walking around with a knee replacement. The surgeries have traditionally



had a high success rate, but have not been easy to go through, scaring away many who can benefit. In addition, as high as 15 to 20 percent of people who go through the surgery may end up dissatisfied with their "artificial knee." While there are many potential reasons for this unhappy group, limited sizes available of implants, the pain and invasiveness of the procedure, and the unnatural feeling of the knees certainly contribute.

There is now exciting new technology that hopes to improve on these results. A manufacturer of implants named ConforMIS, based in Burlington Massachusetts, offers "patient-specific" partial and total knee replacements that are customized to fit each individual. The implants are made to fit the patient rather than making the patient fit an "off the shelf" implant. This approach potentially may be significantly easier for people to get through the surgery and recovery, and may end up giving people a knee that feels more like their own.

For more information, please visit the American Academy of Orthopedic Surgeons at www.orthoinfo.com and www.Conformis.com.



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