

AUSTIN BONE AND JOINT CLINIC

PROFESSIONAL ASSOCIATION

OSTEOARTHRITIS

Osteoarthritis is a disease of aging. Repair of tissues in weight bearing joints usually remain balanced until people reach their 60's and 70's. What happens with aging is not entirely clear, but we do know that cartilage becomes brittle, adapts poorly to change, and damages easily.

We now understand that inflammation is secondary to the disease. We also realize that osteoarthritis is somewhat driven by mechanical abnormalities. These abnormalities trigger a destructive process that causes tissue loss.

There is evidence that osteoarthritis might result from inheriting defective cartilage and we probably will discover more of these defects in the future. There are many patients with either no history of injury or a strenuous vocation who appear to have extensive osteoarthritis, suggesting that there probably is some type of genetic predisposition. If we can identify these people, counseling against excessive use of joints might be useful.

Obesity causes excessive stress to weight bearing joints. The more weight applied to a weight bearing joint, the faster it degenerates.

TREATMENT OF OSTEOARTHRITIS:

EXERCISE. In the past it was thought that exercise worsened osteoarthritis, which gave our patients an excuse to become couch potatoes. Today we recommend low impact exercise to maintain weight and fitness that does not worsen pain:

Walking on a flat surface with appropriate shoes that not only support the feet, but absorb the impact force. Occasionally walking with a cane in the hand opposite the symptomatic arthritic joint will be beneficial.

Cycling on a stationary bicycle. The recumbent bicycle is a excellent choice to relieve weight on a arthritic knee.

Aquatic aerobics, swimming, and other types of pool exercises are idea. Most local arthritis foundation chapters offer information on aquatic programs.

Physical therapy prescription to teach you a home exercise program for joint ranges of motion and muscle strengthening exercises to relieve the osteoarthritis pain.

MEDICATION. We recommend non-narcotic non-prescription pain medication (analgesics). Acetaminophen is the safest medicine with the fewest side effects. As the disease progresses nonsteroidal anti-inflammatory drugs (NSAIDS) can be mixed with acetaminophen to obtain relief.

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Re: Osteoarthritis

The NSAIDS are associated with more adverse reactions such as gastrointestinal bleeding. NSAIDS are available as nonprescription and prescription medication.

Cortisone either orally or 1-3 joint injections.

Hylan and hyaluronate (Synvisc and Hyalgan) are new medications for the treatment of osteoarthritis of the knee joint. These medications are comparable to NSAIDS and efficacy and tend to be effective in patients older than 60 years of age. These medications can take up to five months to relieve pain. Synvisc and Hyalgan are significantly more expensive than NSAIDS.

Alternative medications. Glucosamine and Chondroitin have become very popular nonprescription drugs. The issue with agents such as Chondroitin and Glucosamine is whether they ever get into the joint, considering that they are taken orally and pass through the gastrointestinal tract. In response to extensive public interest, the Office of Alternative Medicine at the National Institutes of Health is sponsoring a multicenter trial to determine the efficacy of these medications. We feel that there are no data to prove that either Chondroitin or Glucosamine are definitely useful, but on the other hand, nothing suggest that they are harmful. The absence of manufacturing controls concerns us because a manufacturer may become careless and produce an impure product that could have adverse effects on patients.

Vitamins. There is some data to support the maintenance of normal levels of vitamin D and vitamin C to minimize the progression of osteoarthritis. To maintain a normal level, you would only need to take one multivitamin a day.

SURGERY

Arthroscopy of joints for debridement (remove loose material) is best suited for mild osteoarthritis in younger patients for not only pain relief, but also to slow the progress of the disease.

Cartilage transplantation and the use of tissue engineering to encourage cartilage growth for reimplantation are best suited to young patients with small focal defects from injury or osteoarthritis. These techniques are not yet practical for the treatment of moderate or severe osteoarthritis.

Total joint replacement is the most successful operation that provides consistent long term relief for severe osteoarthritis. Patients can expect 15-20 years of use of the joint replacement for the activities of daily living, including walking, cycling, swimming and golf. Joint replacements are not recommended for patients who want to participate in vigorous physical activity.