

Spinal Arthritis

Overview: Spinal arthritis is a very common disorder affecting millions of Americans. When it occurs in the neck it is called cervical spinal arthritis. When it involves the low back it is called lumbar spinal arthritis. It begins to affect many people in their 30's. By the age of 40, 50% of people will have evidence of spinal arthritis on an X-ray or CT scan. By the age of 50, that number rises to 100 percent.

Arthritis begins as a low-grade inflammation of the soft tissues surrounding the joints. The joints are composed of a delicate tissue called articular cartilage. It is a very smooth surface and allows the two bones composing the joint to glide over one another easily. Around the articular cartilage is a capsule of soft tissue called synovium. This capsule contains the joint fluid that lubricates the articular cartilage. Inflammation first begins in the capsules. Because the capsules are composed of soft tissue, they cannot be visualized on x-ray. As the arthritis progresses, the surface of the joints becomes pitted and gradually deteriorates. As the articular cartilage erodes, the bones underneath respond to the stress by forming spurs. This erosion and spur formation is a later finding that can be viewed on X-rays.

Diagnosis: Patients with spinal arthritis will develop pain in the neck or low back. That pain can spread to the arms or legs as the inflammation from the joints begins to affect the spinal nerves next to the joints. The pain may be worse in the morning because the joint stiffens during the night. As the day progresses, the joint gradually loosens up and symptoms get better. As the pain progresses, the patient will frequently go to the doctor to see what is wrong. The doctor will conduct a history and physical exam and may order blood tests and X-rays to confirm the diagnosis. The most sensitive test is the CT scan. This is capable of picking up arthritis at a relatively early stage. However, in most symptomatic patients, a simple X-ray will suffice.

Treatment: Many patients can find meaningful relief with a combination of therapies. The initial approach to early arthritis should involve a modest exercise program to keep the joints flexible; usually non-weight bearing exercises such as water aerobics to put the spine through a gentle range of motion and to enhance its flexibility. As arthritis progresses, medications such as aspirin may be necessary. There are now over 17 different types of compounds resembling aspirin on the market. These include drugs like Motrin or Naprosyn. Many patients with spinal arthritis find excellent relief with these anti-inflammatories, however there are some troublesome side effects such as stomach ulcer formation, high blood pressure, and deterioration of the liver or kidneys. Patients on these drugs have to be monitored by their doctor with blood tests taken at least once a year.

If gentle exercises and oral medications fail to control the discomfort, the patient can try a back or neck brace to inhibit the joint's movement and to allow it to rest for a short period of time. Wearing a brace long term is controversial because it will cause weakening of the spinal muscles, which can worsen symptoms.

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In severe cases of spinal arthritis, the patient may be a candidate for nerve block techniques. With nerve blocks, anti-inflammatory medications are injected directly into the joints or nerves. Once the inflammation decreases, the pain decreases. These steroid drugs are generally given as a short series of injections, usually two or three, over a period of weeks. If the patient gets relief lasting at least a few months, the drugs can be used again if the symptoms recur.

It is important to realize spinal surgery cannot relieve the pain of spinal arthritis. Even if a surgeon removes an arthritic joint, the tendency to form arthritis is still present in all the other elements of the spine so the pain will continue. Only if there is pressure being placed on the nerve by a single spur, can surgery be beneficial. The surgeon can remove the spur, alleviating the pressure and pain associated with nerve compression. Nonetheless, the tendency to form arthritis still remains and another spur may develop in a matter of years.