

Understanding Back Pain

Spinal Arthritis and Pain

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The US Center for Disease Control (CDC) predicts that by 2020, the number of people with arthritis will increase to one in every five Americans. Osteoarthritis, the most common type of arthritis, is characterized by the degeneration of the cartilage in the joints, and is often caused by physical injuries, repetitive joint stress, and/or genetic predisposition.

The term arthritis refers to inflammation of the joints of the body. There are over 100 different diseases that can affect the joints. The spine is made up of approximately 48 joints; therefore, the spine is very vulnerable to arthritis. The common form of arthritis is wear and tear arthritis or osteoarthritis. Other types of arthritis that are not as common include ankylosing spondylitis, reactive arthritis, psoriatic arthritis, arthritis associated with inflammatory bowel disease and rheumatoid arthritis. Any condition which affects pain-sensitive tissues of the joints of the spine can result in pain. The term arthritis is frequently misused and overused when used as a diagnosis for back pain. There are many causes for back pain other than involvement of the spinal joints (facets).

Most forms of degenerative arthritis do not have a significant active inflammatory process and, therefore, should more accurately be referred to as "osteoarthrosis" describing a process of wear and tear followed by a reparative process involving the formation of excess bone. Osteoarthritis and osteoarthrosis are disease processes, usually affecting weight-bearing joints causing degeneration of the joint cartilage.

Osteoarthritis of the spine typically accompanies a process referred to as spondylosis. Spondylosis develops in part secondary to chronic wear and tear on the tissues of the spine often first evident involving the intervertebral disc. The process is characterized by a loss of water content within the disc and a loss of disc volume. This contributes to roughening of bone and joint surfaces, thickening of the joint capsule, and thickening of the spinal ligaments. This process further results in approximation of adjacent vertebrae and narrowing of the opening (neuroforamen) where the nerve roots exit the spine. In some cases, progressive bony changes occur with extra bone being laid down in the form of bone spurs, called "osteophytes". The term osteoarthritis is limited to the hypertrophic changes involving bone and joint tissues whereas the term spondylosis includes degenerative changes involving the disc and the extra bone being deposited in the spine (osteophytes) and relationship between two adjacent vertebrae.