



Knee osteoarthritis: A common cause of knee pain

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Knee osteoarthritis (OA) or degenerative arthritis is a very common musculoskeletal condition. Primary OA, more common than secondary OA, is a result of biologic changes in cartilage followed by cartilage breakdown due to mechanical forces. Primary OA is a gradual wear-and-tear condition that becomes more common with advancing age. Secondary OA can occur at a younger age and is usually a result of significant trauma or injury.

Diagnosis of knee OA is made by a careful history, physical examination, and radiographs. Important factors in history include activity level, previous injuries and prior treatment including any previous surgery. Patients usually report activity-related pain that may be sensitive to changes in barometric pressure. Knee pain at rest can occur as OA becomes severe. Patients may complain of mechanical symptoms such as catching or locking in the knee. Physical examination should include an evaluation of limb alignment, range of motion, swelling, crepitus, tenderness and stability. Radiographs (X-rays) including weight-bearing views with the knee flexed are important in making the diagnosis of knee OA. Magnetic resonance imaging (MRI) is helpful in patients showing minimal radiographic changes with findings suggestive of a meniscus or focal cartilage abnormality.

Treatment of knee OA includes surgical and nonsurgical options. Modification of lifestyle such as avoidance of high impact activities and weight loss can decrease symptoms of knee OA. Physical therapy including muscular strengthening,

flexibility and modalities can be helpful. Patients with OA involving primarily one knee compartment may benefit from use of an unloader brace which functions by unloading the arthritic compartment.

Use of acetaminophen or nonsteroidal anti-inflammatory medication is useful in reducing symptoms of knee OA. Glucosamine and chondroitin sulfate are protective agents that can decrease cartilage degeneration although recent studies have not shown conclusive evidence of benefit to patients with knee OA. Intra-articular steroid injections are helpful in alleviating inflammation for a few days to several months. Viscosupplement injections for knee OA have been used successfully for over a decade. Depending on severity of OA, these injections can relieve symptoms of knee OA for up to six to eight months.

Arthroscopy can be beneficial in certain patients with knee OA and symptomatic meniscus tears and cartilage flap tears. Osteotomy is a realignment procedure that is used to unload the arthritic knee compartment in younger, more active patients. Unicompartmental or total knee replacement is definitive treatment for severe knee OA. In order to diagnose and learn about treatment options for knee OA, an evaluation by an orthopedic surgeon is recommended. ★

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