

# Informational Guide to Osteoarthritis

## *Introduction*

Covering each movable joint in the body is a thin, smooth layer of cartilage designed to decrease the amount of friction caused by movement at the joint. This layer of cartilage is typically tough enough to last a lifetime, but can wear down with increased stress.

Osteoarthritis (OA) can be defined as the inflammation or irritation affecting the bone and surrounding tissues at a joint. OA is typically a degenerative process (wears down over time) that can occur with or without a specific trauma. During trauma, tearing of this joint tissue may occur and cause pain and loss of motion if pieces of the damaged cartilage get caught in the joint mechanism. The healing process is slow, and often limited due to poor blood flow to the cartilage tissues. If the mechanism of any joint is out of balance, it will wear with a greater rate and frequency. Over time, damage can occur at the bony surfaces.

## *Symptoms*

Initially OA will cause pain and stiffness at the affected joint(s). The joint may loosen up with use, and easily get stiff with rest. As the joint gets worse, pain may even be present at rest.

Joint swelling and noise (called crepitous) often appear as OA progresses. Eventually, this arthritis will interfere with the joint mobility during general movements. At end stages, bone deformities form due to the wear of the joint surfaces.

## *Diagnosis*

The diagnosis of OA generally starts by taking a thorough history of the symptoms including any traumatic incidents. A detailed physical examination will also be performed of the affected joint(s) to assess general motion, circulation and function.

X-rays are taken to determine the level of damage and to get an idea of how much cartilage is left between the affected joint surfaces.

Various blood work may also be ordered to rule out other types of joint issues.

## *Treatment*

It is best to start with management of OA when symptoms first begin. A physical therapist may initiate function and general joint health by increasing strength, flexibility, stability and balance of the

surrounding soft tissues (muscles, tendons and ligaments). A physician may prescribe anti-inflammatory medication to help alleviate excessive irritation at the affected joints.

Orthopedic surgeons may also choose to inject the joint(s) with either a steroid anti-inflammatory (cortisone), or a fluid to help lubricate the joint surfaces.

If these measures are not helping to alleviate the symptoms and increase the function at the joint(s), surgical alternatives may be explored.

Surgery may be performed to clear out any debris that has accumulated in the area from the wear and tear process. The joint(s) may be fused together to restrict further deterioration by preventing movement altogether. A total or partial joint replacement may also be performed.

### *Rehabilitation*

The rehabilitation goals for OA initially include decreasing the associated pain and swelling that may be present at the affected joint(s). A physical therapist may use soft tissue massage, ultrasound, electrical stimulation, and other modalities as appropriate.

Custom bracing may be fit and used in an attempt to limit excessive straining movements at the affected joint(s).

A physical therapist will also progress a home exercise program (HEP) designed for self-management of the condition. This HEP will likely consist of specific stabilization, strengthening, flexibility and postural awareness of the surrounding muscles, tendons, ligaments, and joints.

### *More Information...*

For more information please contact any of our three clinics in Roseville, Spring Lake Park, or Blaine where a knowledgeable therapist will be happy to assist you with your recovery needs.