PATIENT INFORMATION

ARTHRITIS

What is arthritis?
The word "arthritis" comes from the Greek words for "joint inflammation."

Sometimes called rheumatism, arthritis is really not one disease but a large category of over 100 diseases affecting primarily the joints of the body. Certain types of arthritis, though, are more widespread and can affect other body tissues such as the eyes, nerves, kidneys or skin.

In most instances, arthritis is a lifelong condition that may be progressive or debilitating but is not life-threatening.

Who may be affected?
One in seven people will have some form of arthritis during their lifetime. Almost two-thirds of all American arthritis sufferers are women, and numbers are rising. Certain types of arthritis are more common among women (lupus, scleroderma), while others are more common among men (gout).

Arthritis is generally considered a condition of the aged, and indeed the most common form of arthritis affects primarily persons over the age of 60.

However, some forms of arthritis afflict children as young as infants; these juvenile forms may be variations of the adult versions of rheumatoid arthritis, lupus and others.

What causes arthritis?
Although the specific causes of arthritis are unclear, irritation of joints and body tissues can arise from many things.

Mechanical failures of joints can occur when the cartilage protecting the bone ends wears away, when fluids lubricating the joints disappear, or when injury or aging of the joint components occurs.

Inflammatory conditions can also arise when the body's defense mechanism react against invading organisms (such as viruses, bacteria or fungi) or mistakenly attack its own tissues. Such self-attacking conditions are called *autoimmune* disorders, and several serious forms of arthritis fall into this category.

Some forms of arthritis are believed to arise from a combination of factors: genetics (family heritage), body changes occurring over time, and provocation by some organism or trauma.

What kinds of arthritis are there?

There are many kinds of arthritis. By far the most common is osteoarthritis. A few other types of arthritis are list below but are much less common.

Osteoarthritis: Sometimes called degenerative joint disease, osteoarthritis is a wearing away of the cartilage that protects adjacent bone ends and enables them to glide smoothly. Injury or obesity can hasten the damage caused by aging.

Once cartilage deteriorates, injury to the joint is more likely, bones rub against each other, and irregular tissue (bony spurs or cysts) can form. These processes can cause pain and deformity or limit mobility.

Joints most likely affected by osteoarthritis are fingers, knees, hips, feet and the spine. Osteoarthritis is by far the most common type of arthritis and is generally the one people think of.

***Rheumatoid Arthritis*:** This form of arthritis may begin in early adulthood and can gradually compromise multiple joints and body tissues (for about 15 percent of those with the disease). Rheumatoid arthritis is a systemic autoimmune disease; that is, the body's immune system attacks its own tissues throughout the body.

Besides joint inflammation that leads to deformity and immobility, the disease can cause chronic fatigue, eye problems, skin nodules, and damage to the lungs or other organs.

***Systemic Lupus Erythematosus* (SLE, or lupus):** Lupus is another arthritic autoimmune disease that involves more than just the joints of the body. Lupus affects more women than men. Over time, it can cause serious damage to the lungs, heart, kidneys or even the brain.

Signs and symptoms of lupus may include fever, weakness, weight loss, skin rash, joint and muscle aches, and chest pain. Early diagnosis and continuous appropriate treatment (primarily with medications that affect the immune system) are very important for patients with lupus.

***Ankylosing Spondylitis*:** In this condition, joint inflammation can damage the vertebrae (spondylitis) to the point that the spine bones fuse together. This condition usually begins where the spine meets the pelvis, and it is marked by lower backache, flu-like symptoms and perhaps eye redness, chest pain or heel tenderness. Untreated, spondylitis can gradually progress up the spine as it involves successive vertebrae.

***Gout*:** When uric acid (a waste product normally processed by the kidneys) is not sufficiently eliminated, it can form crystals. These crystals cluster in tissues where circulation is poor (the big toe is a classic site), causing inflammation in joints and severe pain.

Men are more susceptible to gout than women. Factors that upset the balance of uric acid production or elimination (alcohol, eating certain foods) can aggravate gout. Depending on its severity and recurrence, gout can be managed by intermittent use of medications to reduce inflammation and/or daily preventive medications.

***Tendinitis/ Bursitis*:** Joint overuse or injury can cause inflammation of either a *tendon* (a band of tissue connecting bone to muscle) or *bursa* (a lubricating, fluid-filled sac in or around a joint). These conditions are NOT arthritis, but are forms of inflammation that are localized and can be most readily treated.

How do you make the diagnosis?
Because there are so many forms of arthritis, and treatments for each may differ radically, accurate diagnosis as soon as possible is very important.

A family or internal medicine physician can usually determine which of the more common forms of arthritis someone may have from a physical examination and a careful review of individual symptoms. He or she may also obtain x-rays of joints or suggest consulting a specialist in arthritic diseases (rheumatologist).

Certain blood tests, urine tests, biopsies (small samplings of tissue) or X-rays may help to pinpoint the form of arthritis or assess the disease's progress.

How do you treat arthritis?
There are few cures for the various forms of arthritis. Treatments are designed to manage pain and maximize mobility. Treatments vary considerably depending upon the age, general health and activity level of the patient; the type and severity of disease; and whether symptoms are active (a "*flare*") or are temporarily subsided (in "*remission*").

The course of treatment for each patient who has arthritis will probably change significantly as symptoms wax and wane, as medication dosage level are tested and refined, as new treatments become available, and as drug side effects or other challenges arise.

Medications
There are many medications for relieving the pain and reducing the inflammation of arthritic conditions. Because all medications have side effects or risks, treatment may begin with the medication having the least serious side effects. Later, progressively stronger drugs may be used depending on effectiveness, patient tolerance, and health risks balanced against treatment goals.

Medications that reduce inflammation (and also alleviate pain) fall into two general categories: **non-steroidal anti-inflammatory drugs (NSAIDs) and *corticosteroids*.**

NSAIDs used in arthritis treatment include such over-the-counter drugs as acetaminophen, ibuprofen and naproxen. Acetaminophen (Tylenol ™) is a weaker anti-inflammatory but is extremely safe. With other NSAIDs physician guidance is needed because dosages may be much stronger than those used for common aches. Another concern is that stomach irritation or bleeding problems can result after long-term use.

A new class of NSAIDs, the Cox-2 inhibitors, is also available; these have the same efficacy as other NSAIDs but are less likely to cause irritation and stomach ulcers. However, there is some concern with increasing the risk of heart disease with this class of medication.

Corticosteroids ("*steroids*") may be warranted for severe forms of arthritis (lupus, rheumatoid arthritis) or those that are not helped by NSAIDs. Injection of a cortisone preparation into the affected joint can sometimes help control pain and slow the disease. Injections can be given during an office visit, and may be repeated under certain circumstances.

Stronger medications may be needed to alleviate symptoms and slow the disease's progress, particularly for systemic conditions such as rheumatoid arthritis or lupus, but these would need to be discussed with a specialist, usually a Rheumatologist.

Physical Therapy

Maintaining movement is a key goal for arthritis therapy. Depending on severity of disease, physical conditioning and personal or occupational needs, someone with arthritis may be referred to a physical therapist, an occupational therapist or a physical medicine specialist. Such professionals can demonstrate exercises, suggest safe ways to move affected joints, and advise when movement is or not recommended.

Splinting

Customized splints to support the affected joint and immobilize it during flares may be recommended. Splints should be approximately designed and used only as needed, in balance with gentle activity that maintains mobility.

Surgery

When medications cannot manage pain or when joint damage is advanced, surgery may be the most appropriate treatment. Surgery may be needed to inspect joint damage closely by using a small camera on a slender tube (*arthroscopy*), or to rebuild joints (*arthroplasty or joint replacement*).

Total replacement of the joint is now possible using metal or other materials for the hip, the knee, and in some cases the elbow or shoulder. More limited procedures are available that can repair shoulders, knees or feet before the damage becomes severe.

What can I do?

If you have arthritis, self-awareness, emotional flexibility and persistence are attributes that can contribute to optimal care. Remember that what helps you at one time may not only be very different from what works for someone else (even someone with the same form of arthritis), buy may also be ineffective or inappropriate at various stages of disease.

Know the warning signs of arthritis and contact your regular physician if any of these come on suddenly, severely, or persist for more than two weeks:

- Swelling, pain, or tenderness in one or more joints
- Loss of motion in a joint
- Redness and warmth at a joint
- Joint combined with fever, weight loss or weakness.

See your physician (and any specialists he/she recommends) as soon as possible. Self-treatment with over-the-counter medications or those prescribed for someone else could do more harm by delaying proper treatment or may even aggravate you problem.

If **you are overweight, lose weight** by proper diet and appropriate exercise. Your doctor or physical therapist can recommend activities and schedules that can help you lose weight without damaging your joints.

Take medications as directed. Do not increase or decrease dosages based on how you feel or to "save" medications. Never borrow medications from others. Discuss all medication problems with your physician.

Be patient if results take weeks or months; be flexible if the first medication does not work and dosage or drug changes are recommended by your doctor.

Rest during flares and pace you activities during remissions.

A regular exercise regimen that consists of walking 30 minutes a day, five or six days a week, is known to improve general health. If arthritis prevents you from doing this, frequent gentle but steady exercise in a heated pool is very helpful. Follow prescribed guidelines for timing, duration and intensity of exercise.

Physical therapy can also help strengthen the muscles around joint to less pain and increase function. Your physician may recommend you to a program for this reason.

Try applying heat (heating pads, warm baths, or an extra layer of clothing) or cold (a padded icepack or package of frozen peas) to the affected joint. Heat may help resolve morning stiffness, while cold can alleviate soreness after exertion.

Stop smoking if you have not yet quit. Smoking hinders healthy circulation of nutrients and oxygen to all body tissues and can reduce your stamina.

Utilize aids and devices that make difficult movements (such as opening jars) easier. Do a safety-check your home or worksite to eliminate hazards. Use protective padding, splints or a walking aid to protect arthritic joints; follow the advice of your doctor or physical therapist about proper selection and use (or avoidance) of such devices.

Seek information and support from community resources such as the Arthritis Foundation (800/283-7800). Take advantage of help from family and neighbors for tasks that may be painful, awkward of risky.

Work with your physician and other healthcare team members to manage your condition. Be specific and honest in communication symptoms and needs.

Participating in your care for arthritis will enhance the benefits of treatment, your emotional outlook, and your ability to remain active.