What is rheumatoid arthritis?

Rheumatoid arthritis is a type of arthritis that causes inflammation (swelling) in the membrane lining a joint, this can be painful. The cause of rheumatoid arthritis is not known, but it is considered to be an “autoimmune” disease—that is, a disease in which the immune system attacks other parts of the body. In this case, the immune system attacks the linings of joints, eventually causing damage to various parts of the joint. Different joints may be affected at different rates.

How common is rheumatoid arthritis?

Rheumatoid arthritis affects about 1 or 2% of adults, usually starting between the ages of 20 and 40. It is estimated that 2% of Canadians aged 65 and older have rheumatoid arthritis.

Who gets rheumatoid arthritis?

Three quarters of all cases are in women, but rheumatoid arthritis can affect anyone.

How to prevent rheumatoid arthritis?

It has always been assumed that rheumatoid arthritis could not be prevented. Recent research has found that both smoking and obesity increase a person’s risk of developing this disease. This suggests that not smoking and maintaining a healthy weight may help to prevent joint damage from developing.

What are the signs and symptoms?

Because rheumatoid arthritis involves significant inflammation, it can often cause symptoms such as fever, weight loss and malaise, especially at the beginning of the illness. Pain and stiffness usually affect the small joints most, such as the middle joints of the fingers, the wrists, the jaw joint, the toes and the ankles. These joints are usually very inflamed—red, hot, swollen and painful. Joint stiffness is usually worst in the morning and generally lasts for more than an hour.

Different people experience rheumatoid arthritis in different ways. Sometimes it is mild, with only occasional flare-ups. In other people, it may progress steadily. It can start suddenly, with many joints affected, but more often starts slowly, gradually affecting different joints. The first 6 years are usually when the disease progresses most rapidly. Most of the time joints on both sides of the body are affected about equally. With time, rheumatoid arthritis can cause significant crippling and deformity of the joints.

How is the disease diagnosed?

The diagnosis of rheumatoid arthritis is an important one to make, so careful testing is necessary in addition to observing the characteristic symptoms. A doctor will almost always do x-rays of the painful joints, and although the x-rays may be normal initially, they will usually show damage to the joints with time.
Blood tests can be very useful. Tests called the erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) indicate how much inflammation is going on. Another test measures the presence and level of an antibody called the rheumatoid factor; rheumatoid factor is found in 75% of people with rheumatoid arthritis, and higher levels often indicate more severe disease. Another type of antibody, called anti-citrullinated peptide (anti-CCP) is also present in the blood of 96% of people with rheumatoid arthritis and almost always absent in the blood of people who don’t have the disease. Sometimes a test is done for this antibody as well.

Occasionally, a doctor may also examine some joint fluid removed from the inflamed joint with a needle.

How is rheumatoid arthritis treated?

Rheumatoid arthritis is a serious chronic disease that requires lifelong treatment. Apart from drugs, other treatment options include physiotherapy, rest, gentle exercise, splints and other devices.

Most patients with rheumatoid arthritis will be treated initially with anti-inflammatory drugs. These drugs reduce pain and swelling, reduce the duration of morning stiffness, and generally reduce the symptoms. These include nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and diclofenac. COX-2 inhibitors such as celecoxib are another type of anti-inflammatory drugs.

Because anti-inflammatory drugs only treat the symptoms of rheumatoid arthritis (they do not prevent the crippling that occurs over time), emphasis is now placed on what are called disease-modifying antirheumatic drugs (DMARDs). These medications can actually reduce the chance of crippling deformities, slow down the progression of the disease, and reduce the rate of other complications. About 66% of people improve with DMARD treatment, but a complete remission of symptoms is uncommon.

Injected corticosteroids (such as prednisone) are sometimes used to reduce particularly severe inflammation, but they can only be used for a short period of time due to their severe side effects.

A newer class of medications called biologics are used when other medicines to treat rheumatoid arthritis have not worked. Biologics act on parts of the immune system that are involved in the disease process of rheumatoid arthritis.

Surgery is sometimes done to improve a person’s functioning. For example, surgical replacement of a knee or hip can restore mobility and function in a person with advanced disease.

Living with rheumatoid arthritis

- Get enough sleep and eat a healthy diet. Sometimes eating more fish and plant oils and less red meat can improve inflammation a little.
- Don’t use severely inflamed joints—rest them. However, gently stretch these joints regularly so that they don’t freeze in one position.
- When the symptoms are less severe, exercise, especially in water, can help. Never exercise to the point of exhaustion.
- Programs prescribed by a physical therapist can delay the loss of joint function and help keep muscles strong.
- There are a number of aids available to make functioning easier, from canes and walkers to gripping devices.