



Infl

amed Joints?

What to Expect If You Suspect Rheumatoid Arthritis

By Patricia Haynes, GSW

For Joanne, a cook at an elementary school in Washington, every morning used to start with an ice bath.

“When I would get up in the morning, my feet were like concrete. After a bath, I would loosen up so that by the time I got to work, I could almost walk normally.”

Diagnosed with rheumatoid arthritis (RA) about four years ago, Joanne says that she dealt with the autoimmune condition for about three years before figuring out what was going on.

“I just thought maybe it’s gout, or something like that,” Joanne said. “Or maybe it’s what I’m eating. But I changed that, and it didn’t help. It kept getting progressively worse.”

Still, somehow, Joanne managed.

“As long as I kept moving, I was OK. My hands and feet were the worst. They hurt so bad I didn't notice that it was in my elbows, knees, hips, ankles and shoulders. I took out a policy for disability insurance because at that point I still had 17 years left before I retired.” >

Finally, though, Joanne found help for this progressive disease, which, according to The Arthritis Foundation, affects between 0.5 percent to 1 percent (2.1 million) of the population in the United States. Although the cause of RA is not known, certain conditions may make some more susceptible to developing it than others. This applies to genetic immune deficiency, which “can increase the likelihood of ... diseases like rheumatoid arthritis and the kind of anemia that results from premature destruction of red blood cells.”¹

For Joanne, the diagnostic process took about 12 weeks. During that time, multiple sets of tests were conducted. Although this was arduous, it was also necessary, because on the other side, as Joanne found, help was waiting.

Defining RA

RA develops in three stages. The first stage is the inflammation and swelling of the synovial membrane, or joint lining, which causes pain, warmth, stiffness, redness,

Available Medications³

Though RA is not currently curable, numerous treatments are available. Determining which treatment will be the most successful will likely be a process of trial and error. The goal is to find medications that help keep the swelling, pain and joint damage from affecting activities of daily life. The following list of medications and other treatments are some common choices. Not all medications or side effects are included here. RA medications can relieve symptoms and slow or halt disease progression.

Nonsteroidal anti-inflammatory drugs (NSAIDs) are a group of medications that help relieve both pain and inflammation if taken regularly. Over-the-counter NSAIDs include aspirin, ibuprofen (Advil, Motrin) and naproxen sodium (Aleve). These are available at higher dosages by prescription, or your doctor may prescribe other NSAIDs that provide better relief of symptoms. Side effects can include indigestion and stomach bleeding. Other potential side effects may include damage to the liver and kidneys, ringing in your ears (tinnitus), fluid retention and high blood pressure. NSAIDs, except aspirin, may also increase your risk of cardiovascular events such as heart attack or stroke.

COX-2 inhibitors, a class of NSAIDs, may be less damaging to your stomach. Like other NSAIDs, COX-2 inhibitors—such as celecoxib (Celebrex)—suppress an enzyme called cyclooxygenase (COX) that’s active in joint inflammation. Unlike other NSAIDs, COX-2 inhibitors suppress only COX-2, the enzyme involved in inflammation, and not COX-1, the enzyme that seems to protect stomach lining. Side effects may include fluid retention and causing or exacerbating high blood pressure. Furthermore, this class of drugs has been linked to an increased risk of heart attack and stroke.

Corticosteroids, such as prednisone and methylprednisolone (Medrol), reduce inflammation and pain, and slow joint damage. In the short term, corticosteroids can make you feel dramatically better. But when used for months or years, they may become less effective and can cause side effects that include easy bruising, thinning of bones, cataracts, weight gain, a round face and diabetes. Doctors often prescribe a corticosteroid to relieve acute symptoms, with the goal of gradually tapering off the medication.

Disease-modifying antirheumatic drugs (DMARDs) are prescribed to limit the joint damage that occurs in RA. Taking these drugs at early stages in the development of RA is especially important in the effort to slow the disease and save the joints and other tissues from permanent damage. Because many of these drugs act slowly—it may take weeks to months before you notice any benefit—DMARDs typically are used with an NSAID or a corticosteroid. While the NSAID or corticosteroid handles your immediate symptoms and limits inflammation, the DMARD goes to work on the disease itself. Some commonly used DMARDs include hydroxychloroquine (Plaquenil), sulfasalazine (Azulfidine) and minocycline (Dynacin, Minocin). Other forms of DMARDs include tumor necrosis factor (TNF) and Interleukin-1 (IL-1) blocking drugs.

Immunosuppressants (a class of DMARDs) are medications that act to tame out-of-control immune systems. In addition, some of these drugs attack or eliminate cells that are associated with the disease. Some of the commonly used immunosuppressants include leflunomide (Arava), azathioprine (Imuran), cyclosporine (Neoral, Sandimmune) and cyclophosphamide (Cytoxan). These medications can

swelling and fatigue. During the second stage, there is a rapid growth of cells in the joint lining that causes the synovium to thicken. This thickened, overgrown synovium is called a pannus. During the third stage, the inflamed cells release enzymes that may begin to digest bone and cartilage, often causing the involved joint to lose its shape and alignment, causing more pain, and eventually the loss of movement in those joints.

RA is also typically symmetrical, affecting both sides of

the body at the same time, with the same intensity. That is one of the factors that suggests a diagnosis of RA instead of another type of rheumatoid disease.² During Joanne's diagnosis, symmetry was observed.

"When I finally got to the rheumatologist, he said 'I can see it in both your feet, both your knees. I imagine it's in your hips. The only thing I notice that's not symmetrical is that one hand has the bent swollen fingers, and the other hand has swollen fingers that aren't bent.'" ➤

have potentially serious side effects such as increased susceptibility to infection.

TNF blockers are a class of DMARDs known as biologic response modifiers. TNF is a cytokine, or cell protein, that acts as an inflammatory agent in RA. TNF blockers, or anti-TNF medications, target or block this cytokine and can help reduce pain, morning stiffness and tender or swollen joints—usually within one or two weeks after treatment begins. There is evidence that TNF blockers may halt progression of disease. These medications often are taken with methotrexate. TNF blockers approved for treatment of RA are etanercept (Enbrel), infliximab (Remicade) and adalimumab (Humira). Potential side effects include injection site irritation (adalimumab and etanercept), worsening congestive heart failure (infliximab), blood disorders, lymphoma, demyelinating diseases, and increased risk of infection. If you have an active infection, don't take these medications.

Interleukin-1 receptor antagonist (IL-1Ra) is another biologic response modifier and is a recombinant form of the naturally occurring interleukin-1 receptor antagonist (IL-1Ra). Interleukin-1 (IL-1) is a cell protein that promotes inflammation and occurs in excess amounts in people who have RA or other types of inflammatory arthritis. If IL-1 is prevented from binding to its receptor, the inflammatory response decreases. Anakinra (Kineret) is the first IL-1Ra that has been approved by the Food and Drug Administration for moderate to severe RA that doesn't respond to conventional DMARD therapy. It may be used alone or in combination with methotrexate. Anakinra is given as a daily self-administered injection under the skin. Potential side effects include injection site reactions,

decreased white blood cell counts, headache and an increase in upper respiratory infections. There may be a slightly higher rate of respiratory infections in people who have asthma or chronic obstructive pulmonary disease. If you have an active infection, don't use anakinra.

Abatacept (Orencia) is a type of costimulation modulator approved in late 2005 that reduces inflammation and joint damage by regulating T cells—a type of white blood cell. People who haven't been helped by TNF blockers might consider abatacept, which is administered monthly intravenously. Side effects may include headache, nausea and mild infections, such as upper respiratory tract infections. Serious infections, such as pneumonia, can occur.

Rituximab (Rituxan) reduces the B cells (another type of white blood cell) in your body, which are involved in inflammation. Though originally approved for use in people with non-Hodgkins lymphoma, rituximab was approved for RA in early 2006. People who haven't found relief using TNF blockers might consider using rituximab, which is usually given along with methotrexate. Rituximab is administered intravenously. Side effects include flulike symptoms such as fever, chills and nausea. Some people experience extreme reactions to the infusion, such as difficulty breathing and heart problems.

Antidepressant drugs can help those who also experience symptoms of depression. The most common antidepressants used for arthritis pain and nonrestorative sleep are amitriptyline, nortriptyline (Aventyl, Pamelor) and trazodone (Desyrel).

The Diagnostic Process

Your primary physician will likely recommend a rheumatologist (a rheumatoid disease specialist). According to Joanne, her primary physician sent her to a podiatrist, who then sent her to the rheumatologist. The rheumatologist will request a family history, especially Great-aunt Sally's "rheumatism" and your mother's "knotty knuckles," which may be genetic links to a possible type of rheumatoid disease.

Given the complex nature of the diagnostic evaluation of autoimmune disease, no single test confirms a diagnosis of RA (especially for patients who have had symptoms for less than six months). Rather, a skillful evaluation of appropriate symptoms, along with physical examinations, laboratory tests and X-rays, will help establish a diagnosis. According to the American College of Rheumatology, certain laboratory abnormalities commonly found in RA can help in establishing a diagnosis.

These include:

- Anemia (a low red blood cell count).
- Rheumatoid factor (an antibody eventually found in approximately 80% of patients with RA).
- Elevated erythrocyte sedimentation rate or "sed rate" (a blood test that in most RA patients tends to correlate with the amount of inflammation in joints).⁴

X-rays, which can be useful in the diagnosis process, may not show abnormalities in the first three to six months. However, X-rays are useful in determining if the disease is progressing.⁵

Ultimately, while a diagnosis of RA may not be what you want to hear, once you know what you are dealing with, you can begin to determine your treatment options.

That was something Joanne was grateful for: "When I got to the end of the 12 weeks, he [the rheumatologist] said, 'I can promise you when you pick up your prescriptions



and take them, by 10 o'clock tonight you will feel 100 percent better.' And I thought, 'Oh, my, this is cool,' and he was right." (Please note, most patients won't necessarily feel better this quickly.)

For Joanne, treatment has continued to be successful.

"There's days when something will ache, like a shoulder, elbow or wrist, but it goes away. I work with my hands, I do a lot of lifting when I'm at work, and I'm on my feet all day—but I do quite well."

She's even been able to keep up with her favorite hobby: camping.

"I was convinced I couldn't do that anymore, because I couldn't get out of the tent," Joanne said. "I had to crawl out on all fours and find something, like a table or a tree, so I could stand up. I don't have to do that now."

In fact, upon finishing with the 2007-2008 school year, Joanne went on a month-long camping trip.



Other Procedures Available

Although a combination of medication and self-care is the first course of action for RA, surgical or other procedures are available for severe cases.

Surgery⁶

If medications fail to prevent or slow joint damage, you and your doctor may consider surgery to repair damaged joints. Surgery may help restore your ability to use your joint. It can also reduce pain and correct deformities. Surgery carries a risk of bleeding, infection and pain. Discuss the benefits and risks with your doctor. RA surgery may involve one or more of the following procedures:

- Total joint replacement (arthroplasty). During joint replacement surgery, your surgeon removes the damaged parts of your joint and inserts a metal and plastic prosthesis.
- Tendon repair. Inflammation and joint damage may cause tendons around your joint to loosen or tighten. Your surgeon may be able to repair the tendons around your joint.

- Removal of the joint lining (synovectomy). If the lining around your joint (synovium) is inflamed and causing pain, your surgeon may recommend removing the lining of the joint.

IVIG

Intravenous immune globulin (IVIG) has been helpful for some RA patients. However, studies have not definitively proven its efficacy in all cases. According to a work group report on the appropriate use of intravenously administered immunoglobulin (IGIV), published by the American Academy of Allergy, Asthma & Immunology, "IVIG has been used with varying efficacy in several other autoimmune diseases. The results in rheumatoid arthritis are controversial, but some benefit was suggested from case reports and open label trials."⁷



Warning Signs of RA[®]

- Morning stiffness that lasts longer than 30 minutes
- Pain in three or more joints at the same time
- Pain in a joint all night long
- Pain in the same joints on both sides of your body; this is called a symmetrical pattern

RA may start gradually or with a sudden, severe attack with flulike symptoms. RA symptoms vary in individuals. In some people the disease will be mild with periods of activity or joint inflammation (flare-ups) and inactivity (remissions). For others, the disease will be continuously active and appear to get worse, or progress, over time. You may feel weak and tired, you may have a fever or lose weight, but joint pain will be the main problem. If any warning sign lasts more than two weeks, see your doctor. If your doctor believes that you have RA, it is important to see a rheumatologist right away.



Other Ways to Care for Yourself⁹

Exercise

Exercise can help reduce RA symptoms. Range-of-motion exercises reduce stiffness and help to keep joints moving. A range-of-motion exercise for your shoulder would be to move your arm in a large circle. Strengthening exercises maintain or increase muscle strength. Endurance exercises strengthen your heart, give you energy and control your weight. These include walking, swimming and cycling. Consult a doctor before you start an exercise program.

Heat/Cold

Applying heat to an arthritic area can help relax aching muscles and reduce pain and soreness. Heat also promotes blood circulation, which nourishes and detoxifies muscle fibers. Hot showers can help reduce pain and stiffness, though heat should not be applied to an already inflamed joint. Cold applied to inflamed joints reduces pain and swelling by constricting blood flow. When joints are inflamed, ice or cold packs can be used to help decrease inflammation.

Protect Your Joints

To protect your joints, you should avoid excess mechanical stress from daily tasks. Three main techniques to protect your joints include:

- Pacing, alternating heavy or repeated tasks with easier tasks or breaks, reduces the stress on painful joints and allows weakened muscles to rest. Pacing and planning also provide you with ways to deal with the fatigue that is often associated with RA.

- Positioning joints wisely helps you use them in ways that avoid extra stress (for example, use larger, stronger joints to carry loads and change position frequently). Use splints or orthotic devices to help affected joints, such as the fingers, remain in a good position.
- Assistive devices such as canes, raised chairs, grip and reaching aids can help simplify daily tasks. Grab bars and shower seats can conserve energy and help avoid falls.

Weight Control

For people with RA, maintaining a healthy weight is essential. RA patients are generally not obese, and, if so, it's usually because they have become less active. Staying at your recommended weight can help lessen pain by reducing stress on the joints. If you plan to lose weight, discuss the best program for you with your doctor and a dietitian.

Relaxation

Relaxing the muscles around an inflamed joint reduces pain. There are many ways to relax: deep breathing, listening to music or relaxation tapes. Meditate or pray. Another way to relax is to imagine or visualize a pleasant activity such as lying on the beach, or sitting in front of a fireplace. Good relaxation and coping skills can give you a greater feeling of control over your arthritis and a more positive outlook. ■

More Resources

The Arthritis Foundation

Toll-free 800-283-7800

www.arthritis.org

Become a member, receive monthly information and find local support groups.

Endnotes

1. "Immune Deficiency Disease," Microsoft® Encarta® Online Encyclopedia 2008 <http://encarta.msn.com> © 1997-2008 Microsoft Corporation. All Rights Reserved.
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