

# Zeroing in on a disabling disease

BY PAULA RASICH



**A**RTHRITIS IS ONE OF THE MOST COMMON BUT LEAST UNDERSTOOD CHRONIC ILLNESSES IN AMERICA. More than 40 million people suffer from some type of arthritis. Yet in the past decade, the understanding and treatments for rheumatoid arthritis (RA), the most serious form, have accelerated at a rapid pace.

One of the most important discoveries has been this: considerable joint damage happens within the first two years of onset, and an early diagnosis followed by aggressive treatment with today's newer drug therapies can prevent the worst

effects of the disease. This once crippling condition can now be put into remission.

Still, to a large extent, diagnosing RA, an autoimmune disease characterized by inflammation in the lining of the joints, can be challenging. So research illuminating how various factors trigger the disease may help doctors zero in on ways to prevent it, as well as intervene earlier in its course to decrease the cost and disability associated with it.

What generates even more excitement for rheumatologist Dr. Sandra Sessoms is research exploring the underlying biological and social

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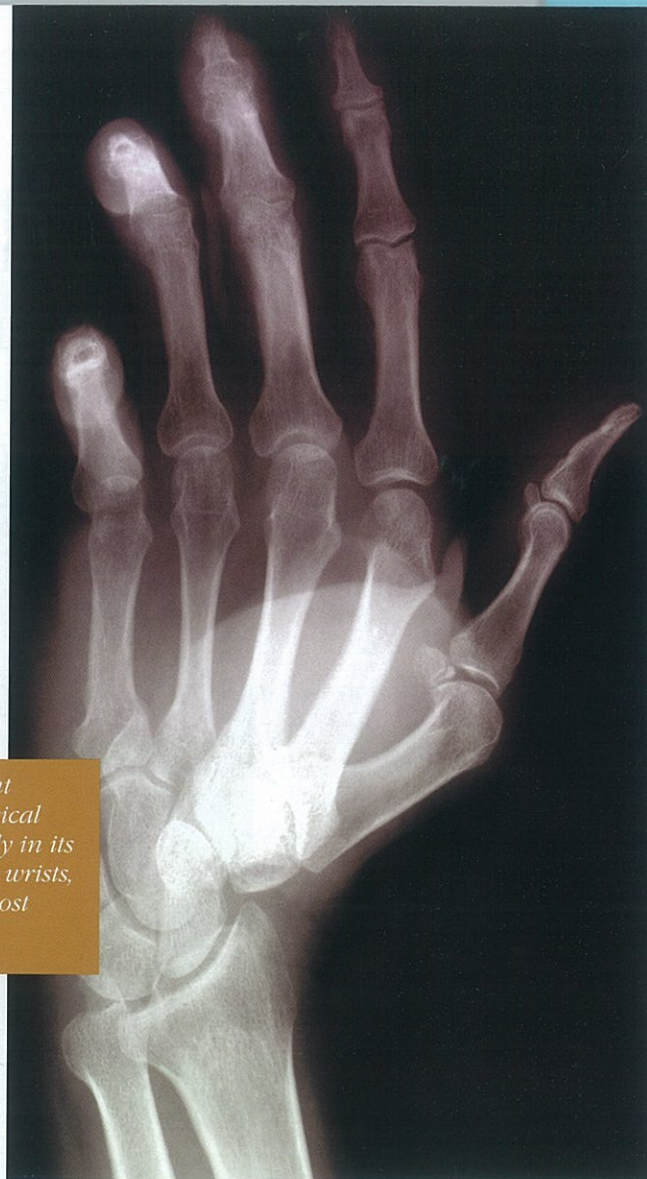
**“Although researchers know a lot about the actual mechanism of arthritis, they know very little about the complex way our bodies develop this disease.”**

*In rheumatoid arthritis, joint deformity is a common physical symptom of the disease. Early in its progression, the joints of the wrists, hands, feet and knees are most commonly affected.*

mechanisms that work together to influence the development of RA, and the ability to detect it long before it can do any serious damage.

The next major advance against this chronic illness will be pinpointing why some people get RA and others don't. Inherited susceptibility and environmental factors such as viruses and bacteria only provide a part of the answer.

“Although researchers know a lot about the actual mechanism of arthritis, they know very little about the complex way our bodies develop this disease,” Sessoms said. “I suspect there are a series of events that influence the development of rheumatoid arthritis.”



### **A first-of-its-kind study**

Set to begin May 2008, Sessoms and her colleague orthopedic surgeon Dr. Bradley K. Weiner will conduct a study that examines all factors that may influence how RA and degenerative disc disease progress. The study will enroll and collect extensive data on 2,000 patients.

Its purpose is to determine how patients' lifelong exposures to risk factors such as stress and, environmental and biological influences interact to precipitate and impact the severity and progression of these diseases. “We've been consumed in trying to treat the condition, rather than trying to prevent it or understand the course of it,” Weiner said.

The second arm of the project will be an ongoing 20-year prospective study following children from childhood into adulthood.

For reasons that scientists have yet to determine, RA affects more than 2 million Americans, mostly women between the ages of 30 and 50. So far, researchers know that a glitch in the body's immune system causes it to malfunction, resulting in chronic inflammation that erodes bone and cartilage, eventually

causing disability. About half of the people with RA are unable to work within 10 years of onset.

A breakthrough in understanding the complex ways that our bodies develop varying severities of chronic illnesses will lead to more effective treatments and prevention strategies. Weiner says they hope to determine how to alter the outcome of the disease beginning much earlier in life.

“In the past, we have been able to look at a disease and develop medical interventions that halt or reverse the process,” Sessoms said. “A new approach is a life course approach, where we focus not only on the disease itself but also on factors that influence its progression throughout a patient's life.” ■