

ARTHRITIC CONDITIONS

RHEUMATOID ARTHRITIS PATIENTS MAY BENEFIT FROM HIGH-INTENSITY EXERCISE



Rheumatoid arthritis (RA) is a painful joint disease characterized by inflammation and swelling of the lining of the joints.

Although the disease usually occurs between the ages of 40-60 and is diagnosed in women twice as much as in men, RA can affect anyone at any age - including children. A person living with the debilitating effects of RA may not feel inclined to exercise; however, a study published in the *Annals of the Rheumatic Diseases* has found that **high-intensity exercise does not increase joint damage in RA patients, and may even be beneficial.**

Researchers from the Leiden University Medical Centre in the Netherlands compared 145 usual care (UC) physical therapy patients with 136 patients engaged in high-intensity weight-bearing exercises over a period of 2 years. All study participants were evaluated for the rate of radiologic (x-ray) joint damage of the hands and feet. Disease activity, use of drugs, changes in physical capacity and bone density, and participant attendance at exercise sessions were all factors that had been determined could possibly affect the study outcome.

Results: Participants in the **high-intensity weight-bearing exercise group developed less radiologic damage after two years compared to the UC group.** Rate of damage was found to be associated with less disease activity, use of fewer drugs, and improved aerobic fitness.

"Participation in a long-term, high intensity weight bearing exercise program comprising improvement in aerobic fitness and impact generating activities does not increase the rate of radiologic joint damage of the hands and feet in patients with RA," the researchers noted. "On the contrary, it seems that **these exercises have a protective effect for the joints of the feet.**"

Reference:

Jong de Z, Munneke M, Zwiderman AH, et al. Long term high intensity exercise and damage of small joints in rheumatoid arthritis. *Annals of the Rheumatic Diseases* 2004; 63:1399-1405

MAYO RESEARCHERS NOTE THAT STRONGER LEG MUSCLES CAN PROTECT AGAINST KNEE OSTEOARTHRITIS

Stronger quadriceps muscles in the legs can help protect against cartilage loss behind the kneecap, according to Mayo Clinic researchers.

Knee osteoarthritis (OA) occurs when the cartilage that cushions the ends of the bones in the knee joint deteriorates over time. As this cushion wears down, the joint doesn't function as well and may be painful.

Researchers studied 265 men and women diagnosed with knee OA. They performed magnetic resonance images (MRIs) of participants' knee joints at the beginning of the study and again at 15 months and 30 months. Based on these MRIs, researchers determined how much cartilage loss

occurred over time at the two joints of the knee - where the thigh bone (femur) meets the lower leg bone (tibia); and the patellofemoral joint (behind the kneecap (patella)).

When the study began, researchers also had measured the strength of participants' quadriceps muscles (leg muscles in the upper thigh). Analyzing these measurements, **researchers observed that participants who had greater quadriceps strength had less cartilage loss within the lateral compartment of the patellofemoral joint, which is frequently affected by OA.**

"A stronger quadriceps muscle helps keep the patella from moving outwards and moving abnormally with movement," said the lead researcher.

Some facts about osteoarthritis (OA):

The exact cause of OA isn't known. **Researchers suspect a combination of factors, including being overweight, the aging process, joint injury or stress, heredity and muscle weakness.** Pain is the major complication of OA. The degree of pain can vary greatly, from mild inconvenience to a debilitating condition that interferes with daily activities.

Reference URL:

<http://www.medicalnewstoday.com/medicalnews.php?newsid=56736>