
Exercising With Arthritis

An Alternative For Osteoarthritis?

A combination of moderate weight loss and exercise is an effective treatment for overweight adults with osteoarthritis of the knee, according to new research from Wake Forest University published in the journal *Arthritis & Rheumatism*.

"Considering that side effects often limit the use of drug therapy and surgical intervention is often ineffective for mild or moderate knee osteoarthritis, our results give strong support to the combination of exercise and weight loss as a cornerstone for the treatment of overweight osteoarthritis patients," said Stephen Messier, professor of health and exercise science and principal investigator of the study.

Researchers from Wake Forest's health and exercise science department and Wake Forest University Baptist Medical Center teamed for the study, called ADAPT (Arthritis, Diet and Activity Promotion Trial). They found that participants in an 18-month program of exercise and calorierestricted diet had a 24 per cent improvement in physical function. Participants in this group also reported the most significant improvements in knee pain, a decrease of more than 30 per cent.

"Our study supports modest weight loss and moderate exercise as a safe, effective therapy for osteoarthritis of the knee," said Dr. Marco Pahor, professor of gerontology in the Wake Forest School of Medicine at Wake Forest Baptist Medical Center and a co-researcher on the study. Pahor is director of the Claude D. Pepper Older Americans Independence Center of Wake Forest University.

Arthritis is the leading cause of physical disability in adults, affecting more than 7 million Britons. Marked by joint damage and chronic pain, osteoarthritis is the most common form of arthritis. Messier said problems with current treatments, anti-inflammatory drugs with potentially serious long-term side effects and surgery that can be ineffective, present a need for an alternative therapy.

ADAPT measured improvement in physical function, pain and mobility in 252 randomized participants, all age 60 or older, who were overweight, sedentary and had knee pain or knee osteoarthritis. The participants were divided into one of four groups: exercise only, dietary weight loss only, dietary weight loss plus exercise, and the control group called healthy lifestyle. The exercise group did aerobic and resistance activities for one hour, three times a week. The diet group attended regular meetings on changing their eating habits and reducing calories in their diets. The combination group, where the most improvement was measured, participated in both programs. The healthy lifestyle group attended classes on weight loss and exercise, but did not participate in the programs.

"We suggest that the combination of diet plus exercise produces consistently better and clinically relevant improvements in physical function compared with diet or exercise alone," Messier said. ADAPT was paid for by a grant from the National Institute of Aging as part of the Pepper Center of Wake Forest University.

Arthritis is becoming more and more common, and not just among the very old. The American Council on Exercise (ACE), America's non-profit fitness advocate, suggests the following ten reasons for arthritis sufferers to start an exercise program.

"Unfortunately, many arthritis sufferers mistakenly believe that exercise will worsen their

condition," said Dr. Cedric Bryant, chief exercise physiologist for ACE. "The reality, however, is that a well-rounded physical activity program of stretching, strength training and aerobic exercise can help minimize many of the adverse affects of arthritis and improve overall functional capacity."

Flexibility training helps improve range of motion and reduces stiffness in afflicted joints, particularly the early-morning stiffness often associated with arthritis.

Aerobic exercise, particularly low-impact activities such as walking, not only improves overall fitness, but also helps reduce the psychological and emotional pain that often accompanies arthritis.

Strength training exercises help build muscle strength, enhance joint stability, and improve mobility making easier to perform activities of daily living.

Weight-bearing (e.g., walking) or weight-loading (e.g., strength training) exercise positively affect bone mass, helping to reduce the risk of developing osteoporosis, a degenerative bone disease that is often seen in people with arthritis due to their reduced levels of physical activity.

Arthritis can negatively affect posture, balance and coordination, all of which may be improved by regular exercise.

Excess weight (especially in the form of extra body fat) places additional strain on the joints so maintaining a healthy body weight is very important for individuals with arthritis. Along with a sensible diet, exercise plays a key role in helping individuals maintain normal body weight levels. Exercise has been shown to help manage stress, which can take its toll on the whole body, including the joints.

Because it is a chronic degenerative disease, people with arthritis often become depressed and develop a poor self-image. People who exercise, however, are less likely to be depressed and tend to possess more positive mental outlooks.

Painful joints can make getting a good night's sleep difficult, if not impossible. Regular exercise has been shown to improve overall sleep patterns and may help lessen this problem.

Because arthritis frequently leads to a more sedentary lifestyle, individuals with this condition are often at an increased risk of developing other significant health problems, such as heart disease or diabetes. Staying active and exercising regularly is an effective means of not only controlling the affects of arthritis, but also of minimizing or eliminating the risk of developing a variety of other lifestyle-related diseases.



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