

Exercise helps patients with non-alcoholic fatty liver disease

July 1 2009

Counseling patients with non-alcoholic fatty liver disease (NAFLD) on how to increase physical activity leads to health benefits that are independent of changes in weight. These findings are in a new study in the July issue of *Hepatology*, a journal published by John Wiley & Sons on behalf of the American Association for the Study of Liver Diseases (AASLD).

NAFLD is the most common form of chronic liver disease in developed countries. It is associated with the metabolic syndrome, which also includes obesity, insulin resistance and type 2 diabetes, and is characterized by elevated [liver enzymes](#). Currently, patients with NAFLD are encouraged to alter their lifestyles, however the focus has been on weight loss through dietary changes. The effects of increasing [physical activity](#) alone have not been thoroughly investigated.

Researchers led by Jacob George of Sydney West Area Health Service in Australia, examined the health outcomes of patients who were counseled on how to increase physical activity. They prospectively enrolled 141 patients with NAFLD from the Sydney West Area Health Service. The participants were divided into a control group, a low-intensity lifestyle intervention group, and a moderate-intensity lifestyle intervention group.

The patients in the intervention arms worked with exercise scientists who provided individually tailored counseling on how to increase both planned and incidental physical activity. Walking was the main type of exercise discussed and patients were encouraged to be active for at least

150 minutes per week.

After three months, participants in the intervention groups were nine times more likely to have increased their physical activity by an hour or more per week, compared to patients in the control group. Those who were active for more than 150 minutes per week, and those who increased their level of fitness, also showed improvements in liver enzymes and other metabolic indices. The effect was independent of weight loss.

Interestingly, there was no dose-response effect for exercise increases above 60 minutes per week. However, those who increased exercise by at least 60 minutes per week had beneficial changes in liver enzymes, insulin resistance and metabolic risk factors.

While greater increases in exercise time appeared to be related to greater weight loss, there was no additional benefit to liver enzymes or glucose homeostasis. "The reason for this is unclear," the authors write, "but we hypothesize that the threshold for change in liver enzymes may be low so that even a slight increase in physical activity is sufficient to improve liver tests."

Patients who remained sedentary over the course of the study had no improvement in metabolic parameters, and even trended toward deterioration in these areas, even if they lost weight. "The metabolic pathway by which physical activity improves insulin sensitivity may be different to that of [weight loss](#) and this is particularly relevant for patients with NAFLD," the authors write. "Physical activity improves insulin resistance through positive changes in fatty acid metabolism in muscle which cannot be achieved through energy restriction."

"We have shown here that physical activity counseling can result in significant increases in physical activity and fitness and subsequent

improvement in health, without the need for supervised exercise sessions," the authors conclude.

Source: Wiley ([news](#) : [web](#))

Citation: Exercise helps patients with non-alcoholic fatty liver disease (2009, July 1) retrieved 20 April 2024 from <https://medicalxpress.com/news/2009-07-patients-non-alcoholic-fatty-liver-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.