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## Exercising to reduce risk factors in NAFLD

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Moderate and vigorous-moderate exercise programmes have similar effects on intrahepatic triglyceride content in patients with nonalcoholic fatty liver disease (NAFLD), according to a Chinese study.

NAFLD is becoming increasingly common, but treatment options are limited. Previous studies looking at the effects of exercise on NAFLD have been small and short-term, giving inconsistent results. “These small, short-term trials were not able to provide dose-response information to formulate evidence-based clinical guidelines regarding exercise programmes in patients with NAFLD,” explains lead author Hui-Jie Zhang. “Furthermore, the long-term effect of current physical activity guidelines on NAFLD is uncertain.”

In this study, 220 people with NAFLD from Xiamen, China, were randomly assigned to either a control group, a moderate exercise group or a vigorous-moderate exercise group. All participants were instructed not to change their diet from baseline, and the control group were told not to change their physical activity levels. Participants

in the moderate exercise group were instructed to walk briskly for 30 min five times a week for 12 months. In the vigorous-moderate exercise group, participants jogged for 30 min five times a week for 6 months and then switched to the moderate exercise programme for 6 months. Participants in the exercise groups received training for 2–4 weeks to ensure they were able to achieve the appropriate exercise intensity and wore a pedometer to log their daily exercise. These participants also received regular telephone calls from study staff to assess their adherence to the programme and provide support where needed. All participants attended regular group health education sessions.

At 6 months, intrahepatic triglyceride content was reduced by 5.0% in the vigorous-moderate exercise group and 4.2% (absolute values) in the moderate exercise group, compared with the control group. At 12 months, intrahepatic triglyceride content was reduced by 3.9% and 3.5%, respectively. “Intensive and moderate exercise

were equally effective in reducing intrahepatic triglyceride content,” says Zhang. Participants in both intervention groups lost weight and reduced their waist circumference and blood pressure; however, the changes were significantly greater in the vigorous-moderate exercise group than in the moderate exercise group. After adjusting for weight loss, the difference between intrahepatic triglyceride content in the intervention and control groups became nonsignificant, which suggests that the reduction in intrahepatic triglyceride content was largely mediated by weight loss.

“These results support the current physical activity guidelines (150 min of moderate-intensity activity per week) for the management of NAFLD,” concludes Zhang. “As moderate exercise is more sustainable and provides most of the benefit of vigorous exercise, it should be recommended for the prevention and treatment of NAFLD.”

Claire Greenhill

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