

Exercise: The Hidden Benefit

Randomized trial shows a workout trims down a fatty liver

Research continues to show that moderate exercise can improve overall health and reduce mortality risk. But a randomized trial assessing Type 2 diabetics and exercise uncovered yet another benefit that could affect you.

Lead investigator Kerry J. Stewart—exercise physiologist, Professor of Medicine at John Hopkins School of Medicine and Director of John Hopkins Clinical and Research Exercise Physiology—reported the study’s results at a September 2008 American Association of Cardiovascular and Pulmonary Rehabilitation meeting. The Association provides professional development and educational opportunities for its members to uphold its central goal of improving the quality of life for patients and families.

According to Stewart, the Hopkins study is thought to be the “first to specifically demonstrate the beneficial role played by exercise in controlling hepatic fat levels” in diabetics.

There’s a “dark trend” on the rise, per Stewart, as more people develop fatty livers, particularly nonalcoholic fatty liver primarily the result of obesity. A nonalcoholic fatty liver (NAFLD) can lead to cirrhosis, liver failure, cancer and a heightened risk of diabetes-related heart disease.

Looking at the study and findings.

According to a press release from John Hopkins Medicine, the study put half of its 77 subjects through a “moderate program of sustained aerobic exercise consisting of 45-minute sessions three times a week” for six months, including bicycling, brisk walks or going on a treadmill. They also lifted stacked weights three times a week for 20 minutes. Meanwhile, the other half refrained from “any formal aerobic fitness or gym classes.”

General fitness exams and magnetic resonance imaging scans (taken at the beginning and end of the study) were performed. The scans revealed lower fat levels in the exercised group, but no change in the nonexercising group.

Per the findings in the exercised group:

- 40% fat-level reduction in Type 2 diabetes with moderate aerobic exercise with some weightlifting
- Better physical fitness and fat measurements
- 13% greater VO₂ levels (peak oxygen intake levels)
- 7% stronger muscles
- 6% lower body fat and body weight
- 2-inch reduction in waistlines

Approximately 14 million Americans have the most common form of diabetes, where their body can’t use or stops producing life-sustaining insulin. Stewart gives a call to physicians: “The benefits in improved fitness and fatness are clear and physicians should really have all people with Type 2 diabetes actively engaged in an exercise program.

Hidden and deadly. Says John Hopkins Medicine, of the 250,000 people dying annually from all kinds of diabetes, a majority of those deaths are from some form of heart disease or stroke. Excess body fat is known to increase the likelihood of potentially life-threatening illness because the fat leads to more inflammation in the artery walls, high blood pressure and elevated blood cholesterol levels.

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According to the American Liver Foundation:

Who is at risk for a fatty liver?

The most common risk factors are:

- Overweight (body mass index of 25-30)
- Obesity (body mass index above 30)
- Abdominal obesity
- Diabetes
- Elevated triglyceride levels





According to the American Liver Foundation:

What is fatty liver?

Excess fat built up in the liver cells that accounts for more than 10% of your liver's weight.

What are the symptoms?

None on its own. So if undetected, an inflamed liver (NASH) can cause damage over years prior to being detected or presenting symptoms. As it worsens, fatigue, abdominal discomfort, weight loss, weakness and confusion could result.

NAFLD has no symptoms. It's often spotted either by elevated liver enzymes (ALT and AST) on routine blood test or when abdominal ultrasounds performed for other reasons reveal a fatty liver. Here's some straight talk on your liver and NAFLD:

Get serious with your health. Studies continue to show that you can improve NAFLD and prevent or delay age-related diseases. The answer is lifestyle prevention.

Cenegenics offers a successful program for optimized health. Built on solid science and established protocols, our medical approach centers on the synergy of low-glycemic nutrition, exercise (aerobic, resistance training, flexibility), nutraceuticals and endocrine balancing.

The low-glycemic component helps reverse NAFLD by controlling insulin levels: Eating few calories and not falling prey to hormonal hunger. Instead, your body uses stored fat in your liver and elsewhere, resulting in reduced weight and a healthier liver.

Your road to healthy aging begins with a highly intensive evaluation process, which incorporates the latest diagnostics to help us determine your health strengths and weaknesses. That data lays the groundwork to customize a program targeting your short- and long-term health goals . . . and living a life filled with vitality, vigor and well-being.

- NAFLD is the most common liver disease—affecting 10%-24% of the world population.
- It affects 29 million Americans—one in three adults and one in 10 children/adolescents.
- It knows no borders, affecting any age or race/ethnicity.
- The stages of NAFLD range from a fatty liver to liver inflammation (caused by fat in the liver called NASH, nonalcoholic steatohepatitis) and cirrhosis (irreparable scarring of liver resulting from chronic inflammation).
- The initial fatty liver stage can exist without affecting liver function, but can lead to NASH, the inflammation stage.
- Approximately 20% of NASH patients develop cirrhosis over time.
- Hormonal imbalance, oxidative stress or mitochondrial abnormalities may further injure the liver.
- The common denominator in all NAFLD stages is insulin resistance—thought to be the root cause of NAFLD.
- Obesity-related liver diseases are becoming a leading cause of liver failure and liver transplants.

What can you do?

- Increase physical activity
- Eat healthy, low-glycemic meals
- Lose body fat
- Lower triglycerides
- Avoid alcohol
- Prevent/control diabetes
- Get regular checkups with blood work

Learn more about personalized Cenegenics programs and the science behind age management medicine.

Call 866.953.1510.

Discussions are always confidential and without obligation.