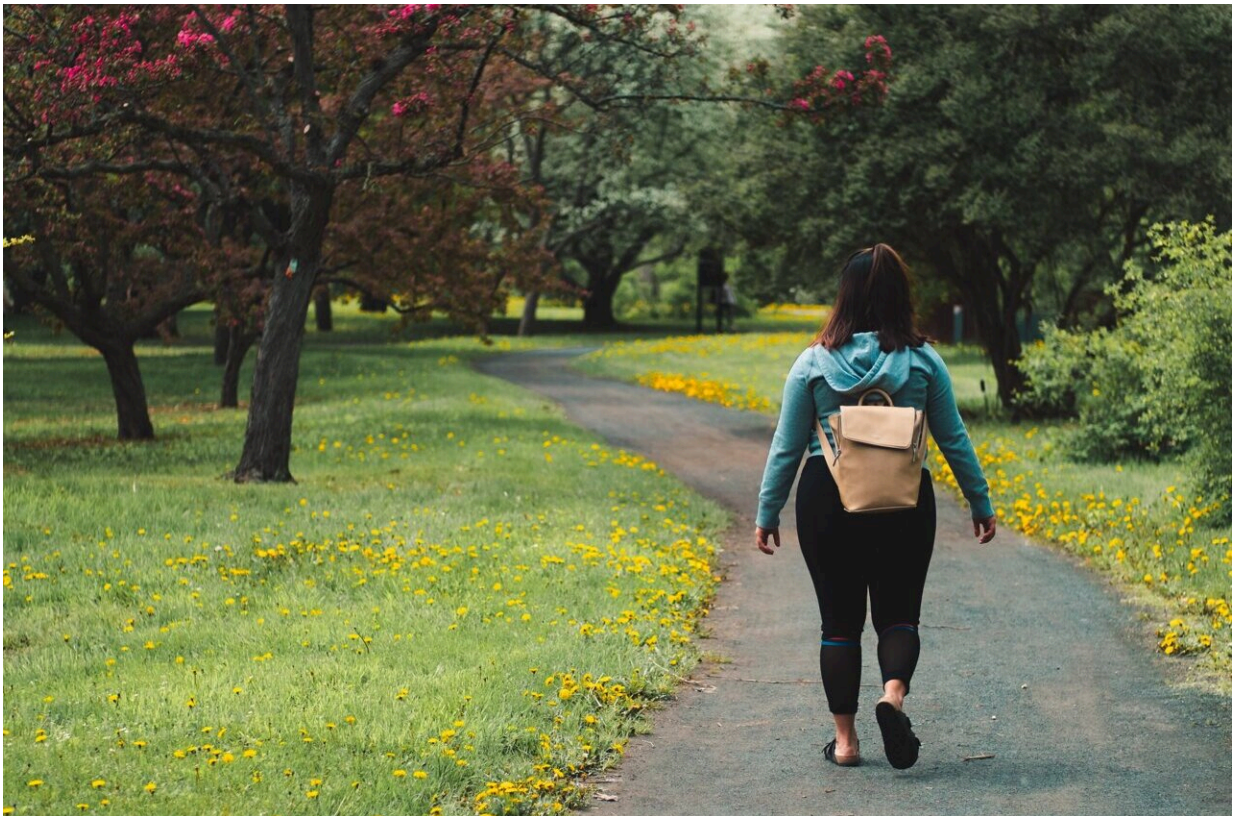


Moderate exercise safe for people with muscle pain from statins

April 3 2023



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Statin therapy does not exacerbate muscle injury, pain or fatigue in people engaging in moderate-intensity exercise, such as walking, according to a study published today in the *Journal of the American*

College of Cardiology. The findings are reassuring for people who experience muscle pain or fatigue from statins but need to engage in physical activity to keep their cholesterol levels low and their hearts healthy.

Statins have long been the gold standard for lowering LDL or "bad" cholesterol and preventing cardiovascular disease (CVD) events, but while generally well-tolerated, they can cause [muscle pain](#) and weakness in some. Physical activity is also a cornerstone of CVD prevention, especially when combined with statins; however, studies have shown [vigorous exercise](#) can increase [muscle damage](#) in some statin users, which can lead to decreased physical activity or cause people to stop taking their medication. Less is known about the impact of moderate exercise.

Researchers sought to compare the impact of moderate-intensity exercise on muscle injury in symptomatic and asymptomatic statin users, plus non-statin-using controls. Symptomatic vs. asymptomatic was determined by the presence, localization and onset of muscle cramps, pain and/or weakness using the statin myalgia clinical index score. Researchers also examined the association between leukocyte CoQ10 levels on muscle injury and muscle complaints, since statins may lower CoQ10 levels and reduced levels can predispose people to muscle injury.

All study participants walked 30, 40 or 50 km (18.6, 24.8 or 31 miles, respectively) per day at a self-selected pace for four consecutive days. Statin users had all been on the medication for at least three months. The researchers excluded those with diabetes, hypo- or hyperthyroidism, known hereditary skeletal muscle defects, other diseases known to cause muscle symptoms or those using CoQ10 supplementation. There were no differences in body mass index, waist circumference, [physical activity](#) levels or vitamin D3 levels (low vitamin D3 levels have been associated with statin-induced myopathy and therefore may be a risk-factor for

statin-associated muscle symptoms) among the three groups at baseline.

Researchers found that statins did not exacerbate muscle injury or muscle symptoms after moderate-intensity exercise.

"Even though muscle pain and fatigue scores were higher in symptomatic statin users at baseline, the increase in muscle symptoms after exercise was similar among the groups," said Neeltje Allard, MD, first author of the study and researcher at the Department of integrative physiology, Radboud University Medical Center in Nijmegen, Netherlands. "These results demonstrate that prolonged [moderate-intensity exercise](#) is safe for statin users and can be performed by statin users to maintain a physically active lifestyle and to derive its cardiovascular health benefits."

Researchers did not find a correlation between leukocyte CoQ10 levels and [muscle injury](#) markers at baseline or after exercise nor was there a correlation between CoQ10 levels and muscle fatigue resistance or muscle pain scores.

In an accompanying editorial comment, Robert Rosenson, MD, Director of Metabolism and Lipids for the Mount Sinai Health System in New York, said patients experiencing statin-associated muscle symptoms will often avoid exercise because of muscle pain and weakness and concerns of making the pain worse; however, exercise is essential for restoring and maintaining fitness in people at increased risk for [cardiovascular disease](#) or who have had a cardiovascular event.

"[Based on the study], many patients who develop statin-associated muscle symptoms may engage in a moderately intensive walking program without concern for worsened muscle biomarkers or performance," he said.

More information: Neeltje A.E. Allard et al, Prolonged Moderate-Intensity Exercise Does Not Increase Muscle Injury Markers in Symptomatic or Asymptomatic Statin Users, *Journal of the American College of Cardiology* (2023). DOI: [10.1016/j.jacc.2023.01.043](https://doi.org/10.1016/j.jacc.2023.01.043)

Robert S. Rosenson, The Importance of Exercise in Cardiometabolic Health in Patients Reporting Statin-Associated Muscle Symptoms, *Journal of the American College of Cardiology* (2023). DOI: [10.1016/j.jacc.2023.02.011](https://doi.org/10.1016/j.jacc.2023.02.011)

Provided by American College of Cardiology

Citation: Moderate exercise safe for people with muscle pain from statins (2023, April 3)
retrieved 3 May 2024 from
<https://medicalxpress.com/news/2023-04-moderate-safe-people-muscle-pain.html>

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