

Musculoskeletal conditions, injuries may be associated with statin use

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Using cholesterol-lowering statins may be associated with musculoskeletal conditions, arthropathies (joint diseases) and injuries, according to a report published Online First by *JAMA Internal Medicine*.

While statins effectively lower [cardiovascular illnesses](#) and death, the full spectrum of statin musculoskeletal adverse events (AEs) is unknown. Statin-associated musculoskeletal AEs include a wide variety of clinical presentations, including muscle weakness, [muscle cramps](#) and tendinous (tendon) diseases, the authors write in the study background.

Ishak Mansi, M.D., of the VA North Texas Health Care System, Dallas, and colleagues utilized data from a military [health care system](#) to determine whether statins were associated with musculoskeletal conditions based on statin use during the 2005 fiscal year. Patients were divided into two groups: statin users for at least 90 days and nonusers. A total of 46,249 patients met the study criteria and of those, researchers propensity score-matched (a [statistical approach](#) that mathematically matches the characteristics of patients in two or more groups) 6,967 statin users with 6,967 nonusers.

"Musculoskeletal conditions, arthropathies, injuries and pain are more common among statin users than among similar nonusers. The full spectrum of statins' musculoskeletal adverse events may not be fully explored, and further studies are warranted, especially in physically active individuals," the authors notes.

Statin users had a higher odds ratio (OR) for musculoskeletal disease diagnosis group 1 (all musculoskeletal diseases: OR, 1.19), for musculoskeletal disease diagnosis group 1b (dislocation/strain/sprain: OR, 1.13) and for musculoskeletal diagnosis group 2 (musculoskeletal pain: OR, 1.09), but not for

musculoskeletal [disease diagnosis](#) group 1a (osteoarthritis/arthropathy: OR, 1.07), according to study results for the propensity score-matched pairs.

"To our knowledge, this is the first study, using [propensity score](#) matching, to show that statin use is associated with an increased likelihood of diagnoses of musculoskeletal conditions, arthropathies and injuries. In our primary analysis, we did not find a statistically significant association between statin use and arthropathy; however, this association was statistically significant in all other analyses," the authors conclude. "These findings are concerning because starting statin therapy at a young age for primary prevention of cardiovascular diseases has been widely advocated."

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