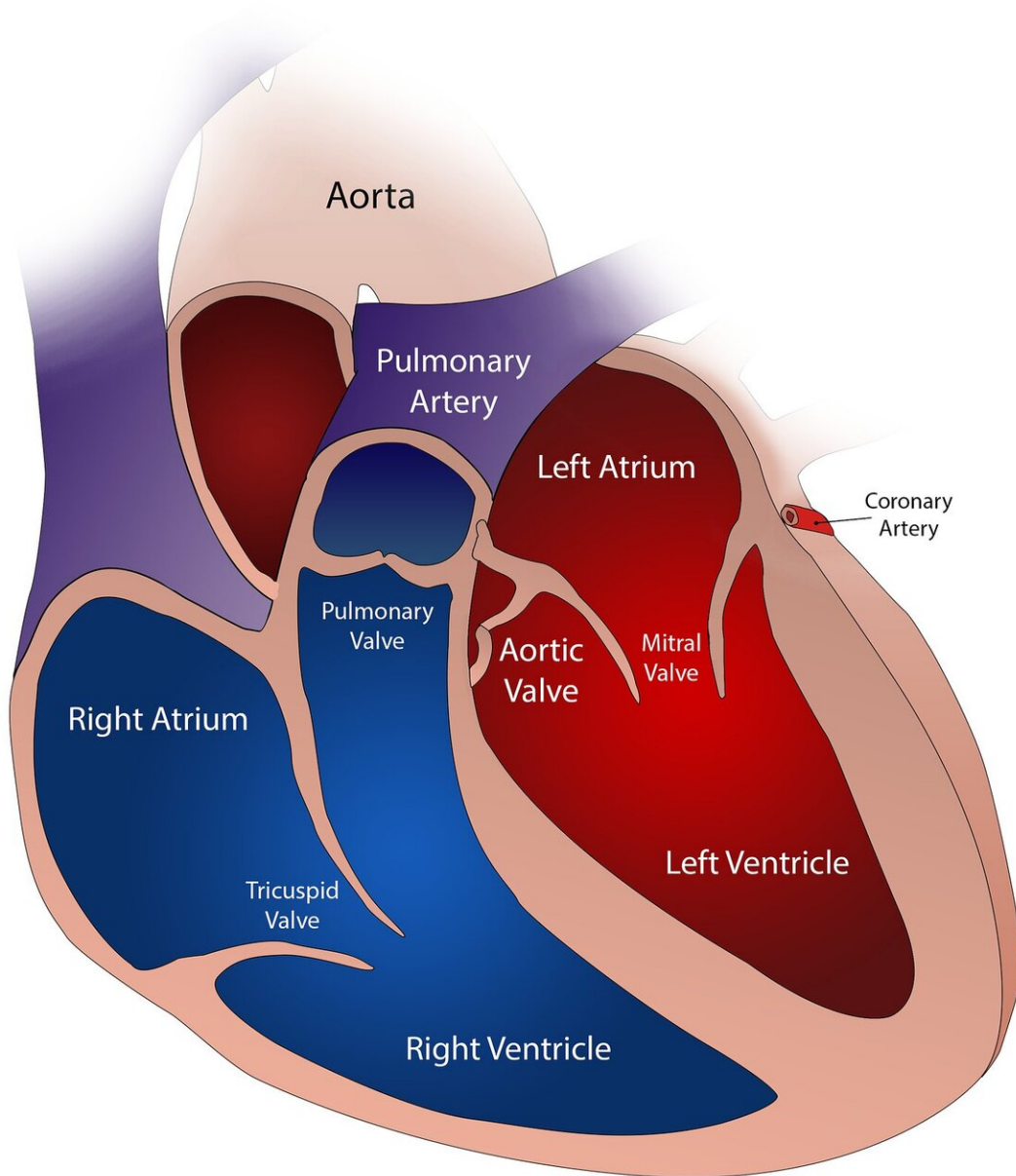


Study finds statins lower CVD and mortality in people with RA, only modestly increase diabetes risk

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New research presented this week at ACR Convergence, the American College of Rheumatology's annual meeting, shows that statins are associated with reduced rates of cardiovascular disease (CVD) and mortality in people with rheumatoid arthritis, but only modestly increase risk of type-2 diabetes, suggesting that statins' benefits outweigh the risks in these patients.

Rheumatoid arthritis (RA) is the most common type of autoimmune arthritis. It is caused when the immune system (the body's defense system) is not working properly. RA can cause pain, swelling, and damage in the joints, including the small joints of the hands, wrists, and feet. Additionally, RA can cause inflammatory damage in other body systems such as the heart, lungs, skin, eyes, and kidney.

In people with RA, chronic inflammation can increase the [risk](#) and accelerate the onset of both CVD and type-2 diabetes. Statins are widely prescribed treatments that lower blood cholesterol and triglycerides to prevent heart attacks and strokes, but they slightly increase type-2 diabetes risk. Researchers set to find out if the benefits of statins are worth the risks in people with RA who are already at risk for diabetes. To find out, they analyzed [medical records](#) of thousands of people with RA in the United Kingdom to compare rates of CVD, mortality and type-2 diabetes in both [statin](#) users and non-users.

"We know that statins have been extensively studied in the general population, but our understanding of statins' effects in RA patients are limited and mostly based on a few studies. Given that RA patients are already at higher risk for CVD and type-2 diabetes compared to general population, it is important to know the overall benefits and risks of statins," says Gulsen Ozen, MD, a rheumatologist at University of Nebraska Medical Center in Omaha and a co-author of the study.

The study included patients who were 18 or older, diagnosed with RA

with no other alternative diagnoses, and were prescribed one or more disease-modifying antirheumatic drugs (DMARDs) between 1989 and 2018. Anyone with prior diabetes was excluded for type-2 diabetes risk assessment. The study included 1,768 statin users and 3,528 non-users followed for rates of CVD and mortality, and 3,608 statin users and 7,208 non-users followed for rates of type-2 diabetes. Investigators tracked rates of CVD outcomes such as heart attack, stroke, hospitalization for heart failure and CVD-related death, as well as all-cause mortality and type-2 diabetes.

Researchers found that 63 of the 1,768 statin users developed CVD compared to 340 out of the 3,528 non-users. They also found incident type-2 diabetes in 128 of 3,608 statin users compared to 518 of the 7,208 non-users. Statin use was associated with a 32% reduction in CVD, a 54% reduction in all-cause mortality and a 33% reduction in type-2 diabetes risks. Patients with and without any prior CVD had similar reductions in both CVD (36% and 34%) and mortality (62% and 54%) risks if they took statins, the study showed.

Researchers also found that the number needed to treat to prevent CVD and mortality in one year was 102 and 42, respectively, while the number needed to harm for a new diagnosis of type-2 [diabetes](#) was 127 in one year of statin treatment.

"We know that RA patients are at higher risk for the development of CVD and death and [type-2 diabetes](#) compared to the general population. Moreover, RA patients are less frequently treated with statins than the [general population](#), which is also concerning," says Dr. Ozen. "We found that statins reduce both CVD and all-cause mortality, which were similar in magnitude. This may suggest that statins may have other beneficial effects in RA patients beyond lipid reduction. As rheumatologists, besides optimal disease activity control, we need to work on addressing the traditional CVD risk factors in our patients in conjunction with their

primary-care providers. We believe that our findings emphasize the benefits of statins in patients with RA."

More information: Gulsen Ozen et al, Reduction of Cardiovascular Disease and Mortality versus Risk of New Onset Diabetes with Statin Use in Patients with Rheumatoid Arthritis [abstract]. *Arthritis Rheumatology* (2021). Available at [acrabstracts.org/abstract/redu...
heumatoid-arthritis/](https://acrabstracts.org/abstract/reduction-of-cardiovascular-disease-and-mortality-versus-risk-of-new-onset-diabetes-with-statin-use-in-patients-with-rheumatoid-arthritis/)

Provided by American College of Rheumatology

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