

# Diabetes drug can prevent heart disease

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The widely used diabetes medicine metformin can have protective effects on the heart, reveals a new study conducted at the Sahlgrenska Academy, at the University of Gothenburg, Sweden.

Researchers at the University of Gothenburg's Sahlgrenska Academy have shown in a preliminary study in rats that one of the most common diabetes drugs, metformin, also has a protective effect on the heart.

The study, carried out in collaboration with a research group from Naples and published in the journal *Diabetes*, reveals that metformin helps increase pumping capacity, improve [energy balance](#), reduce the accumulation of fat, and limit the loss of [heart cells](#) through [programmed cell death](#).

## Long term effect

The results were compared with animals treated with another diabetes drug, which proved to have no positive effects on the heart. "The animals in our study were treated with metformin for a whole year, so the effect seems to persist," says Jörgen Isgaard, the researcher at the Sahlgrenska Academy who led the Swedish research group involved in the study.

## New study on patients

[Diabetes drugs](#) have proved to have a number of serious side-effects for people with heart disease. Rosiglitazone, for example, was recently

withdrawn due to its cardiac side-effects. Metformin too can occasionally have side-effects, primarily in patients with kidney failure. "Our results nevertheless strengthen the indication for [metformin](#) as a diabetes medicine, and we hope that they are now followed up with studies on actual patients," says Isgaard.

**More information:** The article Metformin Prevents the Development of Chronic Heart Failure in the SHHF Rat Model was published in *Diabetes* on 22 February.

Provided by University of Gothenburg

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