

# Common anti-diabetic drug shows potential in improving outcome after stroke

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People with type 2 diabetes have an increased risk of stroke and a worsened outcome after suffering from it. Now, researchers at the

Karolinska Institutet have shown that stroke outcome is significantly improved in mice with obesity and type 2 diabetes who have been treated with the commonly used diabetic drugs SGLT-2 inhibitors.

The results are [published](#) in *Cardiovascular Diabetology* and may have clinical relevance for [stroke rehabilitation](#) in type 2 diabetes.

The number of people with diabetes in the world is expected to rise dramatically to 700 million in 2045. Stroke is one of the major complications in people with diabetes who also have a worsened prognosis in the rehabilitation phase.

Sodium-glucose cotransporter-2 (SGLT-2) [inhibitors](#) are a class of oral medications that lower blood sugar in adults with type 2 [diabetes](#). These treatments have also been shown to reduce cardiovascular risk but if they improve the outcome after stroke is unknown.

Researchers at Karolinska Institutet show that if SGLT-2 inhibitors are given after stroke in diabetic [mice](#), their functional recovery is greatly improved.

"This suggests that diabetic people suffering from stroke could improve their negative prognosis if treated with SGLT-2 inhibitors," says Ellen Vercalsteren, Postdoctoral Researcher at the Department of Clinical Science and Education, Södersjukhuset, Karolinska Institutet (KI SÖS) and first author of the study.

The researchers now plan to go ahead and study the potential association between different diabetic treatments and stroke outcome in clinical registry studies.

**More information:** Ellen Vercalsteren et al, The SGLT2 inhibitor Empagliflozin promotes post-stroke functional recovery in diabetic

mice, *Cardiovascular Diabetology* (2024). DOI: [10.1186/s12933-024-02174-6](https://doi.org/10.1186/s12933-024-02174-6)

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