

# Exercise produces positive effects on the intervertebral discs

June 28 2011

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Physical exercise has a positive effect on the formation of cells in the intervertebral discs. This is shown by a study from the Sahlgrenska Academy, University of Gothenburg, presented at the annual meeting of the International Society for the Study of the Lumbar Spine (ISSLS), which is currently taking place in Gothenburg.

The study from the Sahlgrenska Academy shows that [physical activity](#) has a positive effect on [cells](#) in the intervertebral discs. The result is based on rats undergoing [treadmill exercise](#). It was subsequently studied how many new cells in the intervertebral discs were formed in rats that had run on a treadmill for about one hour a day compared with animals that had only moved around freely in a cage. "This is new knowledge showing that the [intervertebral discs](#) can be positively affected by physical activity," says Helena Brisby, an associate professor at the Department of [Orthopaedics](#) at Sahlgrenska Academy and spine surgeon at Sahlgrenska University Hospital.

Pain in the lumbar spine is common and may be due to disc degeneration, which means that the disc cells no longer have normal functions. Based on the results of the study, the research team led by Helena Brisby and Björn Rydevik intends to go on to study whether the cells in degenerated discs respond as positively to exercise as they have now shown to do in normal discs.

"[Physical exercise](#) is already an important part of the treatment for back pain today, but there is limited knowledge about the specific effect that

exercise has on the discs and what the optimal dose of exercise is," says Björn Rydevik, a professor in the Department of Orthopaedics at Sahlgrenska Academy.

The research team plan for continued studies with this animal model, which hopefully will establish whether exercise can prevent disc degeneration and could consequently prevent back pain, but also aims to study the effect of exercise when back problems have already arisen.

The annual meeting is organised by the International Society for the Study of the Lumbar Spine, which is a non-profit organisation with members from all parts of the world who conduct research on problems affecting the lumbar spine. The purpose of the annual meeting is to create a forum where the researchers can exchange knowledge.

Provided by University of Gothenburg

Citation: Exercise produces positive effects on the intervertebral discs (2011, June 28) retrieved 18 April 2024 from

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