

Researchers: Exercise should be prescribed for people with Parkinson's

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No pharmacological medication currently available can cure or slow down Parkinson's disease. However, based on an extensive literature review recently [published](#) in the journal *Journal of Neurology, Neurosurgery & Psychiatry*, researchers from Aarhus University conclude that physical exercise should be a significant factor in the treatment of Parkinson's patients.

"Based on current evidence, we propose a [paradigm shift](#): Exercise should be prescribed as medicine for people with early-stage Parkinson's alongside conventional medical treatment," says Associate Professor Martin Langeskov Christensen from the Department of Clinical Medicine at Aarhus University and the Department of Neurology at Viborg Regional Hospital.

He is one of the researchers behind the article, which collects and summarizes the most important studies that link exercise and Parkinson's disease. The conclusion is that exercise can help prevent the disease from developing, potentially delay progression of the disease and be an effective treatment for a number of the more pronounced symptoms.

Can help regain quality of life

Exercise is already a cornerstone of rehabilitation for Parkinson's patients, but the researchers from Aarhus University emphasize that exercise might have even more fundamental benefits that could change clinical practice.

In terms of prevention, exercise is a very potent factor, says Martin Langeskov Christensen. "There is strong evidence that moderate to high-intensity physical activity significantly reduces the risk of developing Parkinson's. Existing studies show that high levels of physical activity

have been found to reduce the risk by as much as 25%," he explains.

Evidence also suggests that a number of symptoms for which there is usually no pharmacological treatment can also be treated with exercise.

"For example, many people with Parkinson's disease have difficulty walking, and exercise can minimize that significantly. This can really improve the patient's quality of life. If you struggle getting up from your chair, you may need to focus on strength or balance exercises.

"If you're at risk of high blood pressure, do cardio. It's important to have a tailored exercise plan because we can't expect the individual to know which exercises will improve their symptoms," he says.

He therefore believes that patients with Parkinson's disease should receive personalized exercise programs, including regular follow-ups, in conjunction with their pharmacological medication.

"The dream scenario would be for patients to be prescribed an exercise regimen and be continuously monitored by physiotherapists, exercise physiologists, neurologists and other relevant professions. At the very least, we need better guidelines that recognize the importance of exercise for the patient group and that provide updated exercise instructions. The rationale and evidence are there, so in that sense, the path is clear," he says.

Less need for medication

The big question is whether exercise has any disease-modifying potential: can it slow down this debilitating disease that gradually destroys [brain cells](#) and results in failure of the nervous system?

"Evidence to suggest that exercise can slow the progression of the

disease is less robust, although very plausible. But Parkinson's research lacks the crucial sensitive biomarker to predict disease progression in all patients. However, convincing exercise studies have been conducted on animals inflicted with a disease similar to Parkinson's. But you can't always equate effects seen in animals with humans," says Martin Langeskov Christensen.

"We're not trying to tout a wonder drug—you can't just exercise Parkinson's away. But studies show that the amount of medication can be stabilized by exercise—even reduced by increasing activity levels. Other studies show improvements in the MDS-UPDRS clinical test battery, which is currently the best marker we have for disease progression," he says.

Should you play football or do weight training?

Most studies on Parkinson's disease and exercise investigate the effects of either weight training or cardio training. From a bird's eye view you could say that both work, but for different areas, explains Martin Langeskov Christensen.

"If you have Parkinson's disease, you should do the type of exercise you like best. You're already hampered by low levels of dopamine—so even finding the motivation might be difficult," he says, pointing out that patients who have difficulty performing high-intensity exercise due to complications from Parkinson's can still achieve positive results by engaging in low-intensity activities at home such as gardening or daily walks with the dog.

There is nothing to gain by sitting in a chair, emphasizes the researcher. "When you have a neurological disease like Parkinson's, you might experience fatigue—an overwhelming feeling of tiredness that you can't sleep off.

"If you suffer from fatigue, you should know that it might get worse in the early stages as you increase your exercise regimen. But multiple sclerosis studies show that exercise can actually help combat fatigue, and new studies on how exercise effects fatigue in Parkinson's patients are in the pipeline," he says.

"The core message is that it's better to do something, because the benefits far outweigh any potential downsides. Exercise is a safe, cheap, accessible and effective intervention for people with Parkinson's disease. And studies on the general population show that exercise also reduces the risk of co-morbidities such as high blood pressure, diabetes and osteoporosis."

More information: Martin Langeskov-Christensen et al, Exercise as medicine in Parkinson's disease, *Journal of Neurology, Neurosurgery & Psychiatry* (2024). DOI: [10.1136/jnnp-2023-332974](https://doi.org/10.1136/jnnp-2023-332974).
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