

Research in the region

Parkinson's has many faces

A well-tailored treatment alleviates the symptoms



The multifaceted treadmill training teaches balance and mobility. Photo credit: Kliniken Valens

According to “Parkinson Schweiz”, Parkinson’s is one of the most common diseases of the nervous system. The non-profit association puts the number of people affected in Switzerland at 15’000. Veit Mylius, head physician at the Kliniken Valens, has been involved in the treatment and research of Parkinson’s for a long time. The expert describes which symptoms can provide an indication of the disease: “Most people experience Parkinson’s by starting to write smaller letters and possibly also tremble at rest. The sense of smell can also be affected. Other possible clues include intense dreams and increased movement during sleep. Some individuals complain of shoulder problems. The likelihood of developing Parkinson’s increases with age. Men are affected slightly more often than women. It’s worth noting that all Parkinson’s patients are different in terms of symptoms.”

Currently, there is no cure for Parkinson’s disease. The symptoms can initially be treated well with medication, for example with dopamine substitutes in the form of tablets. For some patients, deep brain stimulation, in which two electrodes are implanted in a specific region of the brain, is effective as the disease progresses. The stimulation reduces movement disorders and one needs to take less medication. An alternative may be a drug pump, which delivers the medication to the stomach via a tube. Therapy at Valens is tailored to the individual patient,

says Mylius: “We try to identify the main difficulties at the beginning. Are they motoric or non-motoric problems? Is it silent speech or is it small movements, swallowing problems, hallucinations, pain or falls?”

The therapy is also based on results from the clinic’s own research, explains the doctor: “In a research project with EPFL (École polytechnique fédérale de Lausanne), we are currently investigating the additional benefits of our treadmill training with virtual reality. On the large screen that is part of the treadmill, we can simulate different environments and everyday situations. For the study, we perform different treadmill therapies with patients during their inpatient rehab stay and compare the results. For example, while some have to avoid obstacles and solve thinking tasks while walking on the treadmill, others do high-intensity treadmill training without additional tasks. We hope to show with this study that training dual motor and mental tasks during treadmill training is well suited to reduce the risk of falls because it can improve coordination in the brain and automation of movement sequences. It is important to counteract Parkinson’s not only with medication but also with physical activity. That’s what we guide patients to do here.”

Authors: Veit Mylius and Daniela Heinen



Veit Mylius. Photo credit: Daniel Ammann

More about the services offered by the Kliniken Valens and their research focus: www.kliniken-valens.ch/morbus-parkinson. The “Parkinson Schweiz” association provides information about the disease and connects people affected by Parkinson’s. There are self-help groups in Chur and St. Moritz, among other places: www.parkinson.ch.

Sponsored Content: The content of this article was provided by Academia Raetica, the association for the promotion of science, research and education in Graubünden: www.academiaraetica.ch.