

Research in the Region

Climbing After a Stroke

From Positive Experiences to Reliable Evidence



Photo caption: Therapeutic climbing trains balance, coordination and movement. Photo: Valens Clinics / Christof Henco

Therapeutic climbing does not begin several meters above the ground. For people who have had a stroke, even a small movement on the climbing wall can be challenging: deliberately reaching for a hold, shifting their weight, straightening their upper body or placing a foot with precision. Depending on their individual impairments, they train grip function, balance, upper body stability, coordination, strength and movement planning. “At the climbing wall, patients can see very clearly what has suddenly become possible again,” says Franziska Riegel. Such experiences of success can strengthen confidence in their own bodies.

Riegel is a physiotherapist who has worked in neurorehabilitation for many years. She now works primarily in research at the Valens Clinics. As part of her part-time doctoral dissertation at the Private University in the Principality of Liechtenstein (UFL), she is investigating the effectiveness of therapeutic climbing for people who have had a stroke and the factors that influence its use. Her research combines her professional experience with her passion for climbing.

Therapeutic climbing has been used in rehabilitation since the 1980s. Studies suggest positive physical, psychological and social effects. However, there is still little robust scientific evidence specifically for people who have had a stroke. In addition, clinics and healthcare professionals use therapeutic climbing in different ways. Riegel is therefore beginning by systematically reviewing the existing scientific literature. She is examining what is currently known about its effectiveness for stroke patients and about how it is implemented in inpatient and outpatient rehabilitation. She will then interview patients and healthcare professionals in individual and group discussions. She also wants to include people who do not use therapeutic climbing and find out which expectations, reservations and barriers influence their decision.

Riegel will also examine different locations within the Valens Clinics. What specialist training do healthcare professionals need to provide therapeutic climbing? What infrastructure is required? Are sufficient time and staff resources available? Clinics that do not offer therapeutic climbing, or offer it only on a small scale, may provide particularly valuable insights into potential barriers. The qualitative study will not yet measure the extent to which balance, arm strength or endurance improve. Instead, it is intended to lay the groundwork for a subsequent effectiveness study. “We want to find out what is meaningful and feasible, and what really matters to patients,” says Riegel.

Therapeutic climbing should be used when it supports an individual patient’s therapeutic goals and when its effectiveness is backed by scientific evidence. Ideally, it can help people regain confidence in their abilities, remain physically active after rehabilitation and potentially reduce their risk of another stroke.

Franziska Riegel and Daniela Heinen



Franziska Riegel. Photo: Valens Clinics / Christof Henco

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