



# ROCK CLIMBING / OUTDOOR BOULDERING

## Background:

Rock climbing is a popular pastime for all age groups. Several disciplines can be distinguished, including traditional climbing, sports climbing and bouldering. The Alps offer an infinite number of climbing and bouldering routes of varying skills levels. In addition, many indoor climbing facilities and climbing parks are on offer.

Therapeutic climbing is a new approach adapted from artificial rock-climbing movements. It does not necessarily involve climbing entire routes as in traditional climbing, but may only involve specific exercises performed on a climbing wall. Therapeutic climbing is currently used for treating orthopaedic, neurological and psychological diseases. A meta-analysis from 2010 states that the evidence for the effectiveness of therapeutic climbing is limited and involves a high risk of bias: the effects of therapeutic climbing are therefore still unclear.

## Studies of medical evidence:

### Climbing as a preventive health intervention

- Indication: trunk muscles and mobility (Heitkamp, Wörner & Horstmann, 2005; Muehlbauer, Stuerchler & Granacher, 2012): evidence level IIa

### Therapeutic climbing

- Indication: cerebral palsy (Böhm, Rammelmayer & Döderlein, 2015; Schram Christensen, Jensen, Voigt, Nielsen & Lorenthen, 2017): evidence level Ib
- Indication: multiple sclerosis (Velkonja, Curić, Ozura & Jazbec, 2010): evidence level Ib
- Indication: chronic back pain (S.-H. Kim & Seo, 2015; Schinhan et al., 2016): evidence level IIa
- Indication: depression (Stelzer et al., 2018): evidence level Ib

## Conclusion:

Further research is required for the indications described. Only long-term interventions were examined in the existing studies, which limits implementation in health tourism. Furthermore, highly trained staff are needed, while no evidence exists concerning short-term interventions (e.g. 1-2 weeks).

## Health tourism potential:

- Well-trained staff (climbing instructors, therapists, psychologists) are required for climbing therapy.
- Creation of a wide range of climbing courses (from beginner to expert). Creation/designation of new tours in cooperation with local climbing clubs and mountain guides.
- Indoor offers for days when the weather is bad.

