

# CON-TREX

BIOMECHANICAL TEST- AND TRAINING SYSTEMS

## CON-TREX Leg Press with Stroke Patients

Since a short period medical findings have shown that patients should be mobilised after stroke or cranio-cerebral-injury as fast as possible. In the guidelines of the German Society for Neurology, the rehabilitation of the lower limbs and walking ability are requested.

*“These recent studies suggest that in motor rehabilitation, innovative treatment techniques with active and task oriented exercise training and a high training intensity is superior to traditional forms of treatment (van der Lee 2001). Task-specific and goal-oriented procedures aren’t just more effective in view of the treatment goal but the treatment results obtain longer (Feys et al. 2004). This applies both to procedures with repetitive exercises as well as for functionally oriented therapies and procedures which are based on behavioural psychological knowledge such as therapy with enforced use. Both the upper and lower limbs benefit from this approach on the long term (Kwakkel et al. 2002). The advantage of the recent therapeutic approaches is due to problem oriented use of a specific therapeutic method combined with the adapted frequency.*



During initial rehabilitation, CON-TREX LP provides patients with a secure and intensive training unit with the aim of enhancing the circulation in the lower limbs without the risk of overstressing the patient (thanks to isokinetic and biofeedback). The lower limbs are moved and exercised in an alternating mode that is similar to the gait and stair climbing movement. This means that along with the enhancing of the circulation, the strengthening of the weakened muscles is also achieved.

### Further advantages of CON-TREX LP with stroke patients

- Documentation of the rehabilitation
- With the CON-TREX 'Isokinetic Ballistic Mode' extremely weak patients are also able to work active during the initial phase of rehabilitation
- Comparison of strength performances of the affected and the unaffected leg
- Training of the affected side (safe, without the risk of injury, gravity neutral)
- Supported training is possible (CPM mode)
- Biofeedback
- Thanks to the three point belt the patient is unable to slip and fall.
- Strength progression can be documented and analysed over the complete exercise. This means very small amounts of progress can be recorded (motivation of the patient).
- Training with daily exercises (climbing stairs, getting up of a chair)
- Gait improvement through build up of muscle power in the lower limb on the affected side

return to function