

Thera Trainer®

BENEFITS OF THERA-TRAINERS FOR...

PEOPLE WITH MULTIPLE-SCLEROSIS (MS)

• MS with symptoms of slight to strong paralysis and spasms

Exercise recommendation:

Start with passive exercise – afterwards continue with passive/active exercise and active with the symmetric symbol screen to improve the coordination of the legs

- to reduce spasms
- to influence the muscular tone
- to retain the existing muscle mass or if possible, build it up
- to counteract or prevent joint contractures
- increase the heart-/blood circulation
- to stimulate the bladder and bowel system

Recommended THERA-trainer:
THERA-vital or THERA-live

• MS in the initial stage with eventually slight paresis and spasms

Exercise recommendation:

Start with passive exercise, then continue with active exercise

- to retain the existing muscle mass or if possible, build it up
- increase the heart-/blood circulation
- to stimulate the bladder and bowel system

Recommended THERA-trainer: THERA-fit plus, THERA-vital or THERA-live

How to choose the suitable THERA-trainer?

Since the course of MS may be progressive, the THERA-vital or THERA-live would be the best choice right from the beginning, because as the disease advances the accessory spasticity control, calf support, handles etc. often become necessary due to increased paresis, spasms etc. The symmetric exercise for an aimed coordination exercise is not available in connection with the THERA-fit plus -> Upgrading the THERA-fit plus with this and more accessory combinations is often impossible!!!

PEOPLE WITH HEMIPLEGIA/-PARESIS AND AFTER STROKE

• Hemiparesis (half side paralysis with remaining muscular strength of the affected side)

Exercise recommendation:

Start with passive exercise, continue with passive/active exercise and then active with the symmetric exercise with THERA-vital or THERA-live to improve the coordination of the legs:

- to reduce the spasticity
- to retain the existing muscle mass or if possible, build it up
- to counteract or prevent joint contractures
- increase the heart-/blood circulation
- to stimulate the bladder and bowel system

Recommended THERA-trainer:
THERA-vital or THERA-live

• Hemiplegia (half side paralysis without remaining muscular strength of the affected side)

Exercise recommendation:

Predominantly passive exercise is recommended since otherwise only the not affected side can be exercised actively:

- to retain the existing muscle mass
- influence an eventually increased muscular tone
- to counteract or prevent joint contracture developments
- stimulate the bladder and bowel system

Recommended THERA-trainer:
THERA-vital or THERA-live

How to choose the suitable THERA-trainer?

Having distortions of perception the THERA-vital is always recommended due to its big illuminated screen since only here the symmetric exercise display and the exercise data can be read easily and more extra features and special adjustments are usable. THERA-live also allows you to use the symmetric exercise, however, the display is not illuminated and the pictures and symbols are smaller. THERA-fit plus has no spasticity control and can neither be upgraded nor equipped with accessories like calf support, adjustable pedal length, handles or the symmetric exercise. If the patient can use a rollator and if he can stabilize the affected leg using his own strength so no calf support is needed, the THERA-fit plus would also be a cost saving choice.

PEOPLE WITH PARAPLEGIA

- **Complete** (tetra-/paraplegia, no muscular strength in the legs)

Exercise recommendation:

passive exercise, Start at a low rotational speed and with short exercise sessions

- to retain the existing muscle mass or to delay diminution
- to stimulate the bladder and bowel system
- to influence a possibly increased muscular tone

Please note: There is no positive effect in increasing the heart-capacity by only exercise in the passive mode. We recommend exercising with the THERA-aktiv.

Recommended THERA-trainer:

THERA-vital, THERA-live (if applicable also THERA-aktiv)

- **Incomplete** (tetra-/paraparesis with muscular strength in the legs)

Exercise recommendation:

Start with passive exercise - afterwards continue with passive/active exercise and active with the symmetric symbol screen to improve the coordination of the legs

- to reduce spasms
- if necessary to counteract or prevent joint contracture
- to build up the muscle mass
- to improve the cardiac situation
- to stimulate the bladder and bowel system

Recommended THERA-trainer:

THERA-vital, THERA-live (if applicable also THERA-aktiv)

How to choose the suitable THERA-trainer?

Having distortions of perception the THERA-vital is always recommended due to its big illuminated screen since only here the symmetric exercise display and the exercise data can be read easily and more extra features and special adjustments are usable. For active paraplegia patients the different ways of exercise (braking resistance, watt control, isokinetic and pulse control) offer the greatest choice.

THERA-live also allows you to use the symmetric exercise, however, the display is not illuminated and the pictures and symbols are smaller.

THERA-aktiv has no motor support and is run only by the patient's own muscular power. The active therapeutic exerciser has no display and no spasticity control. The user can easily influence and control appearing spasms using his four limbs. An adjustable pedal length is absolutely essential for many paraplegia patients due to the restricted strength and movement conditions resp. because of appearing spasms since arms and legs are connected by a belt.

General issues for people with hemiplegia/-paresis, multiple sclerosis and para/tetraplegia:

- Passive exercise allows the patient to conserve his current overall performance (like muscle mass or joint movability).
- It is important to begin with a passive exercise to reduce spasticity. The patient can switch to active exercise after 2 to 10 minutes.
- The most beneficial exercise combines passive/active exercise with symmetric exercise.
- Passive exercise is an effective method to stimulate the bladder and bowel system and to prevent the urinary tract from being infected.

PEOPLE WITH PARKINSON'S DISEASE

It may appear with:

- heavily reduced mobility
- reduced physical strength and overall performance
- toothed wheel effect (Rigor) (the movement of the legs is irregular)
- threshold effect (sudden stop at a threshold performance, one cannot move any more)
- physical stiffness
- reduced cardiovascular system
- Dependence on medicine – medicine influences for the most part the activity of the patients

Recommended type of exercise:

- For many Parkinson patients the THERA-fit plus would be sufficient as it is small and handy and always usable as an arm- and leg trainer already in its basic configuration. However, the THERA-fit plus can only limitedly be equipped with accessories. Thus it cannot be equipped with e.g. a grip which ensures that you can hold onto the exerciser safely. It is not possible to exercise with the assistive exercise, i.e. it is not possible to activate the remaining muscular strength at a harmonic concentric running. It cannot be retrofitted with symmetric exercise for an aimed coordination exercise of the legs.
- Since the progression of Parkinson may be negative the THERA-vital is recommend to patients with a distortion of perception because of the big illuminated screen since only here the symmetric exercise display and the exercise data can be read off easily and more special adjustments can be used. THERA- live also features the symmetric exercise, but the screen is not illuminated and the pictures and symbols are smaller. Both THERA-trainers enable the exercise of the coordination of the legs with the symmetric exercise.
- The patients benefit very fast from the regular movement exercise.
- Motivation and an easy access to the regular exercise are very important.

Recommended THERA-trainers:

THERA-vital, THERA-live (if applicable also THERA-aktiv)

PATIENTS AFTER ORTHOPEDIC SURGERY

(TEP to hip and knee, arthroscopy etc.)

People may appear with:

- reduced joint flexibility (flexion/extension)
- accumulation of liquids in the joint
- reduced stress of the joint
- joint contracture developments

Exercise recommendation:

- up to approx. 8 days after the operation: CPM (continuous passive motion)
- afterwards passive THERA-exercise (knee flexion 40-50 °, hip flexion 40°)
- according to the instructions of a doctor you can start with passive/active/assisting THERA-exercise
- then an active exercise Starting at 5 watts up to max. 100 watts

Advantages of the THERA-trainers over the CPM or e.g. ergometers:

- With the THERA-trainers both legs – and with the corresponding features also both arms – can be trained sitting on a chair or in a wheelchair with THERA-vital, THERA-live or THERA-fit plus (all three with motor support) or THERA-aktiv and THERA-fit (both without motor) or in bed using THERA-joy (with motor support).
- THERA-trainers follow the instantaneous performance ability of the patient, i.e. in an early stage gently by passive movement, then assisting thanks to the motor support. Later the patient can also use his own muscular strength and exercise specifically against resistance. This makes the process of rehabilitation faster and of higher quality.
- Elderly person feel safer if they exercise sedentarily on a chair.
- The performance of the THERA-trainers starts at 5 watts and increases in steps up to 100 watts (bicycle ergometers usually Start at 20 watts).
- THERA-trainers can be equipped with cranks featuring a variably adjustable pedal length to adapt them to the movability of the user.
- THERA-trainers activate the heart circulation system, the CPM does not.
- An advantage is also the symmetric exercise with THERA-vital and THERA-live for a specific coordination exercise to build up muscles resp. for the prevention and avoidance of evasive postures.

In general:

- THERA-trainers do not replace the CPM. THERA-trainers like the THERA-vital can serve as an earlier substitute for a more effective exercise.
- The joint movability is the border between CPM and THERA-trainers.
- The CPM is suitable for a small group of patients.
- THERA-trainers are versatilely usable in facilities like clinics, hospitals, ambulant rehabilitation centers and homes.

THERA

TRAINER® TOGETHER FOR A LIFE IN MOTION