MOTOmed® Movement Therapy

Motomed® gracile
passive | motor-assisted | active resistive

Effective Movement for Your Child
at home | safe | motivating
Therapy options for your child

**MOTOmed Movement Therapy; a pleasant cycling movement**

1. **passive movement:**
   Legs or arms are moved gently by the motor. This passive training is particularly beneficial for users with spastic paralysis. It also has a positive effect when used as a preparation to physical therapy sessions. Muscles in legs or arms can be loosened. In many cases, the muscle tone can be positively influenced and even decreased through the passive motion.

2. **motor-assisted movement:**
   The ServoCycling function (with motor assistance) can enable the children to start their rehabilitation process at an early stage. It helps them use and encourage even the smallest muscle strength. Any impulses from the legs are intensified by the MOTOmed gracile which causes an acceleration of the pedal rotation.

3. **active resistive movement:**
   This active training can be compared to ergometer training. The child cycles against a set resistance level which ranges between 20 finely regulated gears. The color display shows the child’s performance (in approx. watts) during and after the training session.

**Medical conditions**
Cerebral palsy, spina bifida, traumatic brain injury, tetraplegia, paraplegia, hemiplegia, muscular dystrophy, muscular diseases and other physical impairments.

**Goals and benefits for your child**

- **reduce spasticity, become more flexible**
  Loosen up muscles in the case of sudden spasms or any general stiffness.

- **rediscover and build up residual strength**
  Residual strength which is either handicapped or insufficient to make a complete movement can be rediscovered and applied again.

- **counteract the consequences of lack of movement**
  Stiff joints, shortened muscles, brittle bones (osteoporosis), circulatory problems, digestive problems. With a daily MOTOmed Therapy you can help to avoid cost intensive treatments or therapies related to these illnesses. In many cases even medication can be decreased.

- **Promote walking ability**
  Maintain and increase basic fitness (i.e. endurance, muscle strength) and coordination of movement flow necessary for regular motion sequence. Reduce limiting muscle stiffness. Improve confidence in your walking and stabilize your gait pattern.

- **Strengthen the sense of mental well-being**
  Train regularly. It is a good feeling to do something for yourself. It will have a positive effect on your sense of mental well-being. Physical movement increases the amount of happiness hormones in your body.
Unique features
Children have different needs than adults. The MOTOmed gracile accommodates those requirements. This children specific device (starting at a body height of approximately 90 cm/35 in.) provides a small foot shell distance and a continuous pedal height adjustment.

Continuous pedal height adjustment
The MOTOmed gracile is the first pediatric movement therapy device that provides height adjustability of the pedal axle on the foot shells, with a height adjustment that ranges from 26 - 46 cm / 10.2 - 18.1 in.

As your child grows, the MOTOmed gracile can be individually adjusted to different wheelchair and seating heights.

Notably narrow pedal distance
Children’s hips are narrow compared to adults’ proportions. The inner rims distance of the MOTOmed gracile is 12 cm / 4.7 in. which makes it 30% less than the foot shell distance of other movement training devices. Thus, children with a narrow hip or leg structure can train without being forced into a bad posture. For the knee and hip joints, it is particularly important that bad postures are avoided during cycling movement.

Individualized adjustments
Adjust the height and the distance of the MOTOmed gracile12 to your child’s needs.

Simple operation
The big color display (11.3 x 8.5 cm / 4.4 x 3.4 in.) with an optical font, large graphics and buttons that make the user operation easier.

The operator guidance and training analysis, shown on the large MOTOmed gracile display, are available in 27 different languages (no surcharge).
Functions
The functions of the MOTOmed gracile are especially geared toward pediatric requirements. A multitude of possible adjustments enables an individual adaptation according to the needs of the child.

Safety software
MovementProtector and SpasmControl with an automatic change of rotation direction.

The MOTOmed MovementProtector recognizes sudden spasms. The motor stops smoothly and the pedals are stopped gently.

Important: According to the therapeutic principle, the MOTOmed SpasmControl seeks the suitable movement direction into which the spasm can be eased.

For your safety: The MOTOmed MovementProtector (motor power) constantly adapts to the basic muscle tone (muscle tension) and is therefore optimally sensitive at all times. Even weak spasms are detected reliably and can be treated. This way, the maximum safety for your child can be guaranteed.

Residual muscle strength training by MOTOmed ServoCycling:
With the MOTOmed ServoCycling function, residual muscle strength can be discovered and improved. Any impulses coming from the legs are intensified by the MOTOmed gracile which causes an acceleration of the pedal rotation.

This active-assistive training can activate and build up even minimal muscle strength and is also suitable for one-sided paralysis. To ensure your child's safety, the SpasmControl is always active, even in the active mode.

Automatic training feedback
The large MOTOmed screen automatically shows your child’s current training mode.

During active and passive training, various training parameters are continuously displayed.

Technical Data
- measurement: 100 x 48 x 52 cm / 39.4 x 18.9 x 20.5 in.
- weight: leg trainer 25 kg / 55 lbs
- weight: leg and arm trainer 35 kg / 77 lbs
- mains voltage: determined by country specification
- display: 11.3 cm (w) x 8.5 cm (h) / 4.4 in. (w) x 3.3 in. (h)
- medical product grade MPG IIa
Individual training for a better therapy outcome

There are 13 different therapy programs available that can be selected depending on the focus of rehabilitation or the individual indication of your child. These programs are developed by RECK sports scientists based on aspects of scientific rehabilitation research: standard program, endurance, strengthening, loosening and coordination program, MotivationProgram MOTOmax, Parkinson’s program, stroke, MS, neuro, ortho and cardio as well as »individual programs«.

MotivationProgram MOTOmax

The innovative MotivationProgram MOTOmax provides an exciting training alternative. Based on the SymmetryTraining, coordination, concentration and muscle strength are trained simultaneously. Therefore you will be rewarded with a smile, jumps for joy and champion points. And that’s how it works: You can make MOTOmax move to the right or to the left, by pushing either more with your right or your left side. If you manage to keep MOTOmax in the center (50:50), he will jump for joy. Another benefit: For your physical workout, you will always be rewarded with champion points. You will collect points on each podium, red, yellow and green. The difference: Keep MOTOmax on the green podium, and each champion point is multiplied by 3. >> a training option for more motivation and fun.

There are 6 MOTOmed Movement Therapy films available on DVD. Further information at: www.motomed.com
Handlebar
- To hold on during the training
- Integrated, easy-to-reach operating panel with a large color display
- Height adjustment from 64 - 90 cm / 25.2 - 35.4 in.
- Horizontally adjustable by 8 cm / 3.2 in. (distance to the child)

Pedal radius adjustment (2 levels)
Within seconds the pedal radius can be decreased (3.5 cm / 1.4 in.)
and increased (7 cm / 2.8 in.) with an Allen key.

Pediatric foot shells
The foot shells are softly padded and have a high side panel
for support as well as for foot and ankle protection.

Pediatric leg guides with calf shells
- Provide secure leg support and guidance for various kinds of paralysis
- Comfortable attachment with fleecy Velcro straps
- Height adjustment with flexible calf shells to prevent pressure marks

Color selection
Following colors are available at request:
1) Flapper: clear blue, standard color
2) Speedy: bright, sporty red
3) Skippy: warm, soft yellow
4) Jungle: natural green
(colors 2-4 with surcharge)
Self-operating foot holders (item no. 598)
  • Soft foam rollers gently and securely fasten the feet for a firm hold even during strong spasms
  • The safety lock provides a strong hold, even in the case of a strong spasm
  • For inserting and removing legs quickly and easily without any extra help

Height adjustment of the pedal axle with pneumatic spring system (item no. 621)
  • Easy and exact height adjustment with pneumatic spring (135 Nm)
  • Important for facilities treating children with different body heights, training on the MOTOmed

Safety foot shells for adults (item no. 596)
  • For adults and teenagers with larger feet
  • The leg guides are available as accessory

Pedal radius quick adjustment, 3 levels (item no. 588)
  • For a quick change of the pedal radius
  • Adjustable in 3 levels (5.6 - 10.5 cm / 2.2 - 4.1 in.)
  • When mounted to the MOTOmed gracile12, the distance between the inner rims of the foot shells is widened about 2 cm / 0.8 in.

Arm/upper body trainer with motor (item no. 599)
  • Can be swiveled in and out of the training area
  • Enough leg space during the upper body training
  • With an integrated handlebar and an adjustable pedal radius
  • No tools required to adjust the ideal training height

Pediatric forearm shells with arm cuffs (item no. 556K)
  • Provide secure fastening and guidance for heavily paralyzed arms; with padded arm cuffs
  • Flexible: The forearm shells are adjustable to the natural arm movement, making even a lateral movement possible
  • Other arm/hand fixations are available. Ask us for more information!
MOTOmed gracile – Puts a Smile on Your Child’s Face

Vanessa, age 9, trains with the MOTOmed gracile12 arm/upper body trainer

www.motomed.com

Quality and Variety the 12 basic models

1. MOTOmed viva2 leg trainer with color screen - for physical and mental fitness
2. Arm/upper body trainer - for physical and mental fitness of the arm/upper body
3. MOTOmed viva2 Parkinson - especially for the training of the arm/upper body
4. MOTOmed viva1 with remote control - nice and small
5. MOTOmed viva2 deputy - exclusively for arm/upper body training
6. MOTOmed viva2 leg trainer - with functional electrical stimulation (FES) - especially for paraplegia and stroke
7. MOTOmed viva2_Parkinson - 90 rpm for a fast passive movement
8. MOTOmed gracile12 height adjustable - especially for children
9. MOTOmed gracile12 foot rest adjustable from 5-15 cm - 2-6 in. for very small children
10. MOTOmed kitto2 movement therapy in supine position with leg guides - TrainCare comfort
11. MOTOmed kitto2 - from the therapy chair during dialysis
12. MOTOmed kitto2 leg/arm trainer can be used from 3 bed sides

Your MOTOmed partner:

RECK-MOTOmed®
Movement Therapy for a Better Quality of Life

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