

"The Clinical Advantage"™

medBike®

Adding motion to movement disorders



Movement Exercise for Upper & Lower Body

Safe and effective active-passive
movement training for people with
physical limitations

www.biodex.com/medbike



The **medBike** requires minimal space and
is ideal for clinic or home exercise.

BIODEX
www.biodex.com
1-800-224-6339
Int'l 631-924-9000

FEATURES:

- For residential and professional use
- Use comfortably from any chair or wheelchair
- Highly effective in assisting neurologic rehabilitation
- Research has shown that some people with Parkinson's disease may benefit by exercising in the Pedal Assisted mode at the higher rpm levels that the medBike offers, up to 90 rpm
- Speed can be controlled based on user capacity



Open design allows for earlier movement training interventions.

Calf Supports (optional)

For people with partial or complete paraplegia of the lower body, lateral control of the lower legs is highly important during motion training to prevent muscle shortening and joint stiffness. To assure a comfortable and correct position, the optional Calf Supports provide safe guidance.



Calf Supports



Promote Movement Exercise

Designed for people with physical limitations, medBike® enables both upper and lower movement training in one compact device. Users can access forward and reverse pedaling in three modes of customizable exercise: Active, Passive and Pedal Assisted mode. The Continuous Control System in Pedal Assisted mode measures strength of user's input and assists with the rotational movement when needed.

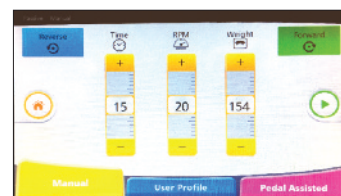
Simple operation supports independent use in the home, or in clinical settings. Upper body trainer swivels into place with a simple twist/turn knob. Height adjustment is fast and easy for any individual. The open design offers comfortable access when exercising from a chair or wheelchair, allowing for earlier movement training interventions across a range of indications.

Fully equipped for today's health and wellness environment:

- **Program Personalized Exercise**
Whether in Active, Passive or Pedal Assisted mode, users can program an individualized exercise session with specific resistance and time values. Forward and reverse pedaling movement can even be combined into one training session.
- **Support Training with Data**
Individualized training sessions are set using the easy-to-read touch display, and end with a detailed exercise summary.



Passive User Profile Screen



Passive Manual Screen

Summary	
Time	20:00
Distance	5 km
Calories	72 kcal
Max. Watt	75
Min. Watt	22
Avg. Watt	32

Summary Screen



Whole Body medBike



Lower Body medBike

Meet the Needs of Older Adults

Aging and older adults, and post-acute patients not suited to traditional cycling equipment can exercise safely using the medBike. Wheelchair access, easy-to-understand screen display and simple operation make medBike perfect for both residential and professional use. The Continuous Control System in Pedal-Assisted mode avoids overstraining the lower- and upper-leg muscles, creating safe exercise conditions.

Expand Medical Wellness Offerings

Physical therapy patients are seeking additional exercise sessions at gyms and wellness centers. With ease of use, safety features and proven benefits for neurological rehabilitation, equipment like the medBike will help attract members with medical fitness needs.

Boost Neurological Rehabilitation

Movement training is effective in assisting neurologic rehabilitation, and repetition is essential for training when brain or nerve damage exists. Frequent and regular movement enabled by the medBike helps patients recover some function.

Proven to be very effective for MS and Parkinson's disease, medBike movement training helps gently loosen and strengthen muscles and reduce spasticity. Research shows some people with Parkinson's disease may benefit by exercising in the Pedal Assisted mode at the higher rpm levels the medBike offers, up to 90 rpm.¹

In the research, dynamic high cadence cycling showed improved motor function in patients with Parkinson's (Hoehn and Yahr Scale < 3).¹ High-speed, low-resistance cycling elicited significant improvements in the four-square step test and 10m walk test.² There was a high reliability and adequate sensitivity to detect small to moderate difference in mobility.



Movement exercise for those with physical limitations or wheelchair users.



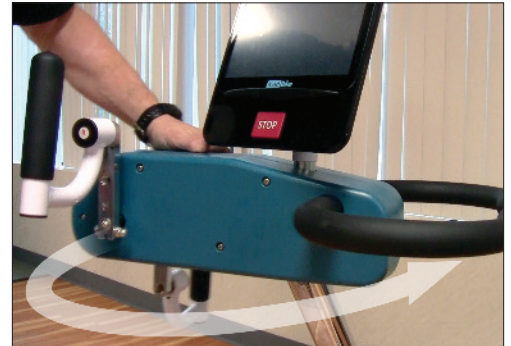
The Continuous Control System avoids overstraining the lower- and upper-leg muscles, creating safe exercise conditions.

References:

- 1 Ridge, A.L., Phillips, R.S., Walter, B.L., Discenzo, F.M., Loparo, K.A. (2015). Dynamic high-cadence cycling improves motor symptoms in Parkinson's disease. *Frontiers in Neurology*, 6:194.
- 2 Uygur, M., Bellumori, M., LeNoir, K., Poole K, Pretzer-Abhoff, I., Knight, C.A. (2015). Immediate effects of high-speed cycling intervals on bradykinesia in Parkinson's disease. *Physiother Theory Pract.*, 31(2):77-82.

THREE MODES OF OPERATION:

1. **Active Mode** – patient drives movement
2. **Passive Mode** – motor drives movement
3. **Pedal Assisted Mode** – motor supplements patient movement when needed



Upper body trainer swivels into place with a simple twist/turn knob.

SPECIFICATIONS:

- Dimensions:
 - Lower Body: 25" l x 20.6" w x 39.6" h (64 x 52 x 101 cm)
 - Whole Body: 26.5" l x 21.8" w x 48" h (67 x 55 x 122 cm)
- Height Adjustable: Telescoping handlebar post: Range 4" (10 cm)
- Display: 10" (25.4 cm) TFT touchscreen
- Hand Grips: Non-allergic, high density; telescopic handlebar post
- Pedal Cranks: Fully articulating with heel cup and safety straps
- Finish: Full metal frame, enamel powder, electrostatic
- Wheels: Durable transport
- Speed Control: 10-90 rpm in passive mode
- Work Rate Range: 1-120 watts (100 watts at 90 rpm in Active Mode)
- Weight:
 - Lower Body: 75 lb (34 kg)
 - Whole Body: 104 lb (47 kg)
- Warranty: Two years parts; one year labor

950-192 medBike®, Lower Body

950-194 medBike®, Whole Body

Optional

950-193 Calf Supports

950-247 Hand/Wrist Cuffs, Small (pair)

950-243 Hand/Wrist Cuffs, Medium (pair)

950-234 Hand/Wrist Cuffs, Large (pair)

Distributed exclusively by Biodex in the USA & Canada.

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*medBike was developed in close cooperation with
professional therapists, physicians and nurses - people working in the field.
The result is a versatile, compact, and very stable movement trainer.*

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