Adding Motion to Movement Disorders

NEW medBike®

FEATURES:
- For residential and professional use
- Can be used comfortably from any chair or wheelchair
- Highly effective in assisting neurologic rehabilitation
- Research has shown that people with Parkinson’s disease may benefit by exercising in the Pedal Assisted Mode at the higher rpm levels that the medBike offers

BENEFITS:
- Safely increase range of motion
- Increase circulation
- Increase muscle temperature
- Increase joint flexibility
- Conditions muscles and joints to prepare for ambulation
- Ideal to use as a warm-up to precede more aggressive exercise

Proven effective for those affected by MS and Parkinson’s disease, the motion training of the medBike® helps loosen and strengthen muscles and reduce spasticity. medBike provides cardiovascular exercise for anyone that does not tolerate standing or is too weak to pedal on their own.

Designed for people with physical limitations, medBike is ideal for independent use by individuals in their home, or in neurorehabilitation settings, SNFs, rehabilitation hospitals, and even private practice. medBike’s open design offers comfortable access for those exercising from a chair, or a wheelchair.

Motion training is also effective in assisting neurologic rehabilitation. Repetition is essential for training when brain or nerve damage exists. Frequent and regular movement may aid in the recovery of some function.

“Research has shown that 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.”

Three Modes of Operation

In each mode the user can program a personal exercise session with specific resistance and time values. Forward and reverse pedal movement can also be combined into one motion training.

1. Active Mode – movement relies on user strength input
2. Passive Mode – motorized movement output
3. Pedal Assisted Mode – combines user strength input and motorized output

In Pedal Assisted Mode, the Continuous Control System measures the strength of the user’s input and will assist with the rotational movement to meet the selected setting if necessary.

Fostering Neuroplasticity through repetition and audio & visual biofeedback.

The common factor of virtually all neurologic conditions is that they affect a person’s gait and balance – and thus, increase the risk of falls. Neuroplasticity represents much of the rationale for rehabilitation methods of neurologic impairments such as stroke, Parkinson’s disease, multiple sclerosis and TBI.

About 50,000 new cases of Parkinson’s disease are reported annually. The prevalence and incidence increases with advancing age. Classic symptoms include deterioration of locomotor skills and postural instability, making falls almost inevitable.

There is a strong consensus among rehabilitation experts that the most important element in any rehabilitation program is well-focused, repetitive practice. BiodeX medical devices provide intensive task-specific rehabilitation, resulting in significant improvement in balance and gait, subsequently reducing falls.

COMPLIMENTARY PUBLICATION

NEW Clinical Guideline
Parkinson’s Disease

A Clinical Guideline for the Treatment of Patients with Parkinson’s Disease using BiodeX Technology.

Download the Clinical Guideline
www.biodex.com/guideline/pd210/16374

NEW It’s Not About the Bike, It’s About the Pedaling

Forced Exercise and Parkinson’s Disease

To read the case study, visit
www.biodex.com/research mb084/16374

www.biodex.com/medbike
CASE STUDY

St. Catherine’s Rehabilitation Hospital Cites Biodex Devices Among Their Most Helpful Tools

Biodex plays a significant role

While St. Catherine’s relies on a wide range of equipment and modalities to stay at the forefront of the rehabilitation field, Biodex plays a significant role on several fronts with equipment used regularly in the inpatient rehab, skilled nursing, long-term care and outpatient arenas.

“We really are lucky to have such support here,” said Greg Hartley, PT, DPT, GCS, who serves as Director of Rehabilitation & Assistant Hospital Administrator, as well as Program Director for Geriatric PT Residency. “And we’ve really put together something special. As part of the training programs, a tremendous volume of both quantitative and qualitative data is generated, much of it using Biodex equipment. This is then digested, disseminated and folded back into our programs to help ensure the best possible outcomes for our patients while also adding to the public knowledge base. We count among our most helpful tools the Biodex Unweighing System, RTM Treadmill, Gait Trainer Treadmill and Balance System SD.”

“We also have a number of specialty clinics for outpatient services in which Biodex equipment plays a leading role,” added Hartley. “These include a Parkinson’s clinic and an ALS clinic, plus an osteoporosis and fracture prevention clinic. Additionally, St. Catherine’s has recently begun to carry a substantial vestibular and dizziness caseload. In each of these instances, Biodex products see heavy usage.”

Results in the Parkinson’s clinic have been especially rewarding as St. Catherine’s staff has seen great success working with extremely debilitated patients, including some who couldn’t even stand at the time of admission. In these instances, use of the Biodex Unweighing System, coupled with amplified verbal cuing, has resulted in patients achieving ambulatory discharge with no assistance. “That,” said Hartley “was one of the success stories that we presented this year at the APTA Combined Sections Meeting. That patient came to us through our specialty Parkinson’s disease clinic. What a wonderful, satisfying result.”

According to Hartley, one aspect that makes the Biodex Unweighing System such a successful tool in working with specialty patients is that it can easily be used to walk a patient down the hall or across the room and is not married permanently to the treadmill.

With the osteoporosis and fracture prevention clinic, the staff at St. Catherine’s focuses attention on balance and fall prevention, and according to Hartley, this is an area where the Biodex Balance System has been a big hit when it comes to training patients. As Hartley explains it, using the Balance System biofeedback screens has been a very positive experience for all involved because they are able to see where their deficits are and where they need to improve.

“The biofeedback coupled with a movable platform,” he surmised, “has been great clinically – but then it also gives us the advantage of being able to print off just the objective information, compare it to norms, and then hand it to the patient on the spot. It’s a terrific tool in this regard.”

The Biodex equipment has been a huge help for us just in terms of being able to perform research in our clinics and getting actual quantitative data out of what used to be purely observational or, at worst, data gathered from unreliable tests and measures. The Balance System SD, for example, has given us ways to show great outcomes in our patients and get the results actually published and presented at conferences across the country. We are excited about that and we currently include our Biodex equipment in our overall marketing strategy, including showing it on our website and in brochures, pamphlets and other promotional materials.”

“We’ve used the Biodex equipment in a number of published studies,” said Hartley. “In addition to the unweighing study already noted, we have presented four or five posters at APTA National Conferences and the Combined Sections meeting, all using Biodex equipment to present quantifiable data. St. Catherine’s has indeed seen a lot of interest in generating research from staff and students using the Unweighing System. While the data generated has centered predominantly on case studies, the system has allowed Hartley to open the door to some students from the University of Miami, where he teaches in his spare time. Recently, he’s begun to couple the post-graduate residents with the entry level interns which, he claims, has really expanded the possibilities for training and education. Last year, in fact, the University of Miami even offered an elective in rehabilitation technology featuring the Biodex Balance System SD. Unweighing System and RTM Treadmill, along with other equipment. “The course filled up after an hour of registration,” chuckled Hartley.

Still, ultimately, everything at St. Catherine’s boils down to a need to benefit the patients and when you add up all the programs, equipment, dedicated staff members and leading research, there’s no question that goal is being served at the highest level.

Attract Older Adults to Your Clinic with a Fall Risk Screening & Conditioning Program

View the brief webcast on the topic of falls, their impact and how your clinic can develop a Fall Program that will establish your clinic as a center of excellence.

www.biodex.com/webcast/fr332/16374
An Integrated Approach to Rehabilitation

The common factor of virtually all neurological conditions is that they affect a person’s gait and balance – and thus, increase the risk of falls. Neuroplasticity represents much of the rationale for rehabilitation methods of neurological involvement such as stroke, Parkinson’s disease, multiple sclerosis and TBI.

The consensus is that the most important elements of a neurorehabilitation program include intensive, interactive, well-focused, and repetitive tasks.

Biodex technology measures performance and documents results.

Treat multiple patients with Biodex technology

Financial available... receive delivery now, defer payments to Q2 2017

- Add a Fall Risk Screening & Conditioning Program
- Strengthen patients for improved ambulation
- Reinforce neuroplasticity with correct gait patterns
- Tax credit with capital investment
- Defer payment to next year

Biodex Gait Trainer 3

Unlike a traditional treadmill, the Biodex Gait Trainer 3 prompts patients into proper gait patterns.

The unique, instrumented deck detects footfall and provides both visual and audio biofeedback.

Low step-up height, slow start-up speed and small incremental speed changes (0.1 mph) – combined with the Unweighing System, make it possible for impaired patients to begin gait training earlier.

www.biodex.com/gait

Biodex Balance System SD

In practice, the patient stands on the Balance System SD and is asked to shift their weight left and right. The Balance System can capture, quantify and document any overcompensation. As a result, therapists can determine if an inappropriate response is a unilateral strength issue, or an initiation or stabilization issue.

The training exercises of the Balance System SD are geared to improve strength, range of motion, gait and balance for those patients suffering from neurological involvement associated with Parkinson’s, Stroke or Peripheral Neuropathy.

www.biodex.com/balance

Biodex BioStep 2 - Semi-Recumbent Elliptical

Used for preambulation exercise, the BioStep 2 provides an alternative to treadmill walking. For those with lower extremity issues such as arthritis or claudication, the BioStep’s fluid motion reduces joint impact.

BioStep’s upper- and lower-extremity exercise encourages gradual strengthening. Unaffected extremities can help propel the BioStep until affected limbs reacquire functionality.

www.biodex.com/biostep

Ambulation Package: An integrated approach to rehabilitation

950-240 BioStep™ 2 .................................................................$4,295.00
950-406 Gait Trainer 3, includes Geriatric Handrails* .........................$12,495.00
950-440 Balance System SD ......................................................$12,750.00
Combined Total ..............................................................................$29,540.00

Financing available for as little as $585/mo.

Take it a step further... ask about adding the FreeStep SAS – Supported Ambulation System.

*Additional handrail models available.

SHOW THE NUMBERS

Position Your Clinic as a Partner for Value-Based Care

Be able to PROVE that your efficiencies and technology can get patients better, faster.

Biodex technology provides positive outcomes, accelerates rehabilitation and reduces readmission. DOCUMENTED.

Call Biodex today and ask us how.

Learn more and view sample reports. www.biodex.com/balancesoftware
Patients work harder without fear

“At Lifecare of Elkhorn, we have an inter-disciplinary program designed to meet the needs of folks that have Parkinson’s disease, on both an inpatient and outpatient basis. As part of the program we utilize the Biodex FreeStep SAS.

Because there is no need to support the patient, the therapist can step away and evaluate the patient’s movement, give better cues on how to move, provide resistance and do other manual techniques that you need to do without helping them actually stand up.

They know they’re safe and won’t fall, giving them confidence to work a lot harder.”

Cheri Prince, PT
Director of Rehabilitation Services
Life Care Center of Elkhorn

Watch the Video
www.biodex.com/video/elkhorn

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Expand the Use of Your Biodyex System 4 Dynamometer

NEW attachments available to assist exercise post-stroke with upper extremity hemiparesis for wrist, elbow and shoulder.

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