

CASESTUDY

St. Catherine's Rehabilitation Hospital cites Biodex Devices among their most helpful tools

St. Catherine's Rehabilitation Hospital



BIODEX

Biodex Medical Systems, Inc.

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St. Catherine's Rehabilitation Hospital

All across the world, hospitals and clinics, big and small, touch the lives of patients receiving physical and occupational therapy in wonderful ways every minute of every day. Few, however, have such a wide reaching, positive impact as the team at St. Catherine's Rehabilitation. They go far beyond the traditional rehabilitation agenda, reaching out to thousands of patients yearly by offering cutting edge treatment and equipment, providing a tremendous student training program, and offering a credentialed post-graduate residency training for physical therapists in geriatrics (the first of its kind accredited by the APTA).



Greg Hartley,
PT, DPT, GCS

"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."

TOP 25 IN THE US

Serving the south Florida community with three acute medical rehabilitation hospitals, Catholic Health Services provides a broad range of services for patients suffering from any number of acute or chronic illnesses that cause temporary or permanent disability. Both St. Catherine's Rehabilitation Hospitals in Miami were ranked within the top 3% out of approximately 800 rehabilitation hospitals in the USA reporting to UDS-MR in 2011.

"That puts us in the top 25 rehabilitation hospitals in the country," stated Hartley proudly. "We are recognized as leaders and experts in treating patients with a variety of neurological conditions, especially strokes. In fact, 80% of stroke patients treated at a Catholic Health Services Rehabilitation Hospital last year achieved outcomes exceeding national norms, and 74% of the total patient population regained the functional independence necessary to return home, a rate substantially better than the national average."

That's a great starting point when getting to know this operation, but there's plenty more to be proud of here, especially on the rehabilitation front where specialized programs are designed to meet the needs of disabled and elderly patients. By design, programs at St. Catherine's combine medical care with rehabilitation services to help reestablish the functional, physical, cognitive and behavioral skills required for patients to live as independently as possible. That's a huge goal considering the advanced age of

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the general population in this region (typical patients at this combined facility exceed 72 years of age across all the rehabilitation platforms and inpatients average 74.1 years old). St. Catherine's specializes in treating patients with physical impairments and activity limitations caused by stroke, arthritis, amputation, multiple sclerosis (MS), post-polio syndrome, spinal cord and head injuries, as well as other neurological and orthopedic conditions.

"Sure, there's a lot on our plate," conceded Hartley, "but our team loves a good challenge. We are the premier inpatient rehabilitation hospital in South Florida; however we also offer skilled nursing, long-term care, outpatient and a variety of other services such as assisted living and home health care. We have a total of 62 inpatient rehabilitation hospital beds split between the two campuses, 232 skilled nursing beds, plus our outpatients. So, this is indeed a busy place with more than 50 full time therapists.

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 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."



Body-Weight Supported Treadmill Training (BWSTT) using the Biodex Gait Trainer 3 and Unweighing System.

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."

ADDING TO THE KNOWLEDGE BASE

St. Catherine's also leans heavily on the Biodex Balance System SD at health fairs and fall screening events. Every year, on the first day of fall, a national fall prevention awareness day is held and the staff takes that opportunity to put the Balance System to use performing fall screenings. This has proven successful as a means to increase awareness within the staff and the surrounding healthcare community, so that nurses and other professionals better understand the hospital's capabilities and services.

Yet another way St. Catherine's uses Biodex equipment is to amass as much qualitative and quantitative data as possible.

"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.

DIVIDENDS COME FULL CIRCLE

Hartley, who has been at St. Catherine's for over 11 years, believes that the programs, clinics, teaching and research going on at St. Catherine's all yield high dividends on a compounding basis by helping to ensure positive patient outcomes. "The patients benefit in huge ways from all of this," he explains, "because all the training and education done at these facilities is cutting edge."

"The staff here," he explained, "draws from all the positive energy, which means that patients end up being surrounded with the best and the brightest, all of whom are interested and constantly learning. That translates to a lot of good, competent and productive attention on every case. "So, all this, I think — on an overall basis — really helps push our patient care to the highest level."

EDUCATION IS KEY

Aside from the patient-care mission, which St. Catherine's considers its primary focus, Hartley is proud at how large a role this operation now plays in educating future therapists, as well as those therapists who will go on to become board certified in geriatric physical therapy through the residency program. And here too, Biodex has had a positive impact.

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“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.”



A post graduate resident trains an intern on how to use the Biodex Balance System SD for Fall Screening.

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.

For more information on Biodex Physical Medicine & Rehabilitation equipment, please contact:

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