

&gt;

October 03, 2014 9:32AM

Print Page

## Helping people stay on their feet

For years, skilled nursing facilities have filled the gap between hospital and home for patients needing help after surgery, heart attacks, strokes and other disorders, but had little to help those patients prevent a common threat to their recovery: A fall.

For years, skilled nursing facilities have filled the gap between hospital and home for patients needing help after surgery, heart attacks, strokes and other disorders, but had little to help those patients prevent a common threat to their recovery: A fall.

Now, McPherson Hospital's Rehabilitation Services Department offers the latest in computerized rehab technology for patients whose conditions place them at increased risk of potentially fatal falls: The Biodex Balance System.

The Biodex Balance System enables McPherson Hospital therapists to test the ability of their patients to resist balance challenges that could induce a fall, and to compares those test results to aged-matched "normal" persons. When fall risks are detected, therapists aided by software programs in the Balance System can, over a period of weeks, help patients develop the muscle strength and neurological response necessary for them to walk more safely when discharged.

"We're pleased to add the Biodex Balance System to our comprehensive programs widely respected by the physicians who refer patients to us," says Terri Gehring, vice-president for operations.

The Centers for Disease Control reports that among older adults, falls are the leading cause of injury deaths. They are also the most common cause of nonfatal injuries and hospital admissions for trauma.

Twenty to 30 percent of elderly who fall suffer moderate to severe injuries such as bruises, hip fractures or head trauma. Fall risks are elevated for seniors who've been hospitalized for almost any reason, but especially following stroke and surgery to replace osteoarthritic hips and knees.

Research studies conclude that:

- n Between a quarter and half of all stroke patients have at least one fall within six months of their hospitalization.

- n Although total hip arthroplasty effectively restores hip function, residual deficits in balance control persist up to four months post-operation, increasing fall risk.

- n Most patients undergoing total knee arthroplasty have a history of falling, and 45 percent of those with a presurgical fall history will fall post-operation.

- n Postural instability (tendency to "sway" when standing) is a fall risk characteristic of Parkinson's disease that can be reduced with balance and strength training.

In addition to two-minute fall risk tests that compare patient's balance to a database of age-matched "normals," the Biodex Balance System enables McPherson Hospital therapists to quickly test a patient's postural stability on firm and unstable surfaces, to identify underlying visual and musculoskeletal deficiencies.

A "limits of stability" test evaluates a patient's ability to lean forward as if reaching for an object on a shelf, and lean backward as if rinsing hair in the shower.

The Biodex Balance System combines sensors under a platform to detect patient weight distribution and response to computer challenges. Their efforts are displayed on a large eye-level screen and captured on a computer, which also stores the performance of normal individuals at different ages performing the same tests.

Results of the Biodex Balance System tests can be printed out and submitted to the patient's physician, along with a recommended course of corrective physical therapy.

Once patient's balance issues are identified, and patient's physicians approves recommended rehabilitation programs, therapists can begin using the Balance System's six programmable rehab modes.

Arguably the most important of the Balance System's six modes are its weight-shifting and percentage of weight bearing protocols. Proper weight shifting and weight bearing are essential to reducing the risk of falls common when, because of pain, paralysis or habit, patients don't distribute their weight evenly as they take steps

Each week, therapists print out a report illustrating patient's progress, and send them with reports to their clinician.

"When our patients return home, we want them to be confident of their ability to walk, climb steps, and return to their daily activities," Rehabilitation Services Director Brandon Labertew said. "Our new Biodex Balance System is a major tool in giving them that confidence."

For more information on the McPherson Hospital Balance System program, or to learn how to ask your clinician for a referral to McPherson Hospital, contact Brandon Labertew, 620-241-2251, extension 148.

<http://www.mcphersonsentinel.com/article/20141003/LIFESTYLE/141009708>

Print Page