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Balance is crucial to avoiding falls after surgery

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I had a hip replacement four weeks ago, and I'm happy to say my doctor said the surgery went exceedingly well, and I'm already walking around with no problem. Also on Monday I started outpatient physical therapy at a nearby rehabilitation facility — a rigorous bunch of exercises including using a recumbent bike and various dumbbells and ankle weights.

One exercise involves trying to stand on one foot for a minute. (I challenge you to do it.) This has to do with the all-important sense of balance.

In order to walk safely it's important to put equal amounts of weight on each foot. But most people have altered their balance before they have a knee or hip replacement because of the pain in the subject hip or knee. And they are at an even higher risk of falling after they have a new hip or knee because it's painful to put pressure on the new joint.

If I lose my balance and fall and dislocate my new artificial ball and socket, the doctor will have to repeat the surgery — which costs me or my insurance company around $25,000, and the second time around usually doesn't have such a good result. If you have knee replacement surgery, a fall could be worse.

And if you're old — not me, of course — a fall can be fatal. In fact, my mother lost her balance and fell at the age of 94, broke her neck when she hit the sharp edge of a family heirloom bureau, and died a week later.

So I was interested in what rehab facility Suffield House in Suffield is doing with a new tool, the Biodex Balance System, which aims to help people who've had hip and knee replacements, strokes, Parkinson's Disease, or falls regain their sense of balance better than other methods.

Most therapists use parallel bars, but, says Biodex consultant Mel Snyder, "The problem is that the patient is not using his or her legs to equalize the balance. They're too much dependent on arms."

The Balance System is more effective, Snyder says. It looks like a high-tech doctor's scale with an eye-level LCD display that's programmed to test and train patients how to put weight on both feet. Patients rock on the platform, trying to follow therapist directions, or playing special computer games on the display with their feet to learn how to put weight on both feet.

Meanwhile, a computer tracks their performance and compares their results to those of age-matched "normal" individuals in two minutes. If the Balance System reveals an elevated risk of falling, three or more weekly exercise sessions on it can strengthen leg and ankle muscles and improve nervous-system response to balance challenges.

It all sounds good, but is it worth the $9,000 each machine costs?

It is, Snyder answered, if you balance it against the high costs of falls and the value of improving chances of avoiding falls in the wake of the dramatic increase in hip and especially knee replacements, which are tougher to recover from and pose a major risk of falls.

"If you stay in a hospital for three or more days, Medicare will pay for an additional 20 days of care at a skilled nursing facility for rehabilitation, and without a Balance System, it's difficult to get significantly improved balance within 20 days," Snyder said, adding, "While $9,000 sounds like a lot of money, the clinics that purchase them can collect around $75 per visit for treating outpatients, and $500 or more for including this kind of training in a short-term Medicare Part A stay."

As for relevant statistics, the Centers for Disease Control reports:

- More than one-third of adults 65 and older fall each year in the U.S.
- In 2005, 15,800 people 65 and older died from injuries related to unintentional falls; about 1.8 million people 65 and older were treated in emergency departments for nonfatal injuries from falls; and more than 433,000 of those patients were hospitalized.
- According to the National Hospital Discharge Survey, the rate of knee replacements for those aged 45 to 64 more than doubled from 13.1 per 10,000 population in 2000 to 27.3 per 10,000 population in 2006.
- For those 65 and over, the rate of knee replacements increased from 60.1 per 10,000 population in 2000 to 88 in 2006.

For more information on the Balance System, visit

http://www.biodex.com/rehab/balance/balance_300feat.htm

Reference:
http://www.journalinquirer.com/harlan_levy/balance-is-crucial-to-avoiding-falls-after-surgery/article_7f795c15-2747-5ac6-b690-47b0a2b2917a.html