Therapy Using Freedom Through Functionality (FTF) Results in Better Recovery for Dementia Patients

"Aegis Rehab Outcomes Measure (ROM)... shows that dementia patients treated in facilities with the Freedom Through Functionality program during 2008 experienced a much greater rate of recovery of their ability to walk. "

Most people view dementia as a disease impacting brain function, such as memory impairment and the ability to perform daily tasks. But in addition to this, dementia also affects an individual's physical abilities, including walking and overall movement.

While the neurological effects of dementia become evident early on, its impact on physical movement often begins during its intermediate stages. During this time, patients may experience difficulty with walking, begin walking in a slow, unsteady or shuffling manner, show an increase in falls, or exhibit the loss of purposeful movement. In the advanced stages of dementia, those symptoms worsen considerably. The patient may completely lose the ability to walk, be unable to control muscle movement, be unable to rise from bed, possess a weak hand grip and exhibit overall poor coordination.

While there is no cure for dementia, exercise has proven to be beneficial in slowing its progression and keeping current symptoms under control. This is because exercise increases blood flow to the brain, assists in the formation of new brain cells, improves sleep, and helps heart and lung function. Some patients also experience a feeling of accomplishment when they are able to perform the exercises.

In addition, studies have shown that exercise can help dementia patients by improving the brain's ability to plan, organize and multi-task, as well as enhance mood, relieve frustration and prevent disruptive behavior, such as agitation and wandering.

"Exercise was associated with statistically significant positive treatment effects in older patients with dementia and cognitive impairments," said Patricia Heyn, PhD, Beatriz C. Abreu, PhD, OTR, Kenneth J. Ottenbacher, PhD, OTR, in *The Effects of Exercise Training on Elderly Persons With Cognitive Impairment and Dementia: A Meta-Analysis*. "The meta-analysis results suggest a medium to large treatment effect for health-related physical fitness components, and an overall medium treatment effect for combined physical, cognitive, functional, and behavioral outcomes. The results provide preliminary evidence for the effectiveness of exercise treatments for persons with dementia and related cognitive impairments."[1]

Dementia and Freedom Through Functionality

Exercise programs that incorporate strengthening, flexibility, building muscle mass and bettering movement and balance have shown to be most effective in delaying dementia's deteriorating effects. Such programs can help patients perform daily tasks with less difficulty, such as standing up from a chair, getting in and out of bed or a car, carrying groceries and walking.

Aegis Therapies has developed a strengthening program call "Freedom Through Functionality" (FTF) for use in its rehab programs and for treatment of the senior dementia patient. This exclusive program uses specially designed Nautilus® exercise equipment and high-resistance protocols to effectively build strength and coordination, increase mobility and independence, and alleviate risk of falls. Equipment and exercises employed in Freedom Through Functionality include: leg press, triceps press, compound row machine, low back machine and neck exercise.

(Note: Prior to instituting the FTF program as part of a treatment plan, Aegis therapists first assess the patient's ability to understand the exercises at hand. Then, to ensure safety, patients are also supervised during therapy.)

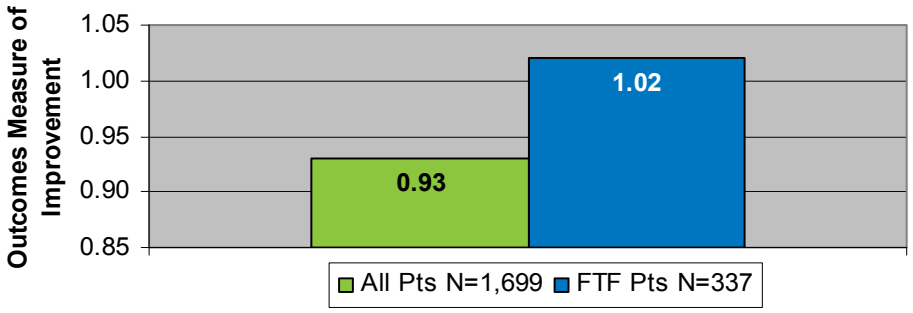
Aegis Rehab Outcomes Measures (ROM), Aegis' own quantitative measurement tool, shows that dementia patients treated in facilities with the Freedom Through Functionality program during 2008 experienced a much greater rate of recovery in their ability to walk. Also, once patients use the specialized Nautilus equipment, their gains in strength lead to other functional gains and can often make the patient safer and less dependent on caregivers.

In addition to this, dementia patients utilizing FTF experienced additional benefits, such as:

- → Up to 30% reduction in risk for falls
- → Reduced burden of care for those seniors who may be living in a skilled care setting
- → Increased independence and increased efficiency with activities of daily living (ADLs)
- → Increased participation and socialization in activities both inside and outside of independent or assisted living settings
- → Increased overall well-being
- → Improved self-esteem and self-image

Freedom Through Functionality can be utilized in any senior setting, with the end result for patients being better health, greater independence and increased control over their dementia and its effects.

Functional Gain in Walking - Dementia Pts



Equipment and exercises employed in Freedom Through Functionality

EXERCISE	IMPACT OF EXERCISE
Leg Press	Aids in falls prevention by improving: → Sit to/from stand transfers → Standing balance → Walking speed → Steps and stairs
Triceps Press	→ Moving in bed → Supine to/from sit → Sit to/from stand
Compound Row Machine	Strengthens upper back and deltoids, bringing shoulders back and improving: → Posture → Breathing → Reaching
Low Back Machine	Strengthens back extensors → Reduces slouch → Better unsupported sitting → Fewer aches and pains
Neck Exercise	Strengthens neck flexors and extensors, providing better head on neck posture and improving: → Eating → Swallowing → Breathing

[1] Heyn P, Abreu BC, Otternbacher, KJ. *The Effects of Exercise Training on Elderly Persons With Cognitive Impairment and Dementia: A Meta-Analysis*. Arch Phys Med Rehabil Vol 85, October 2004:1701.