



CENTER FOR INNOVATION AND WELLBEING

AlterG Case Study



Sunny View residents provide input for Bionic Leg advancements.

When [AlterG](#), creator of sports and medical technology, including the [Anti-Gravity Treadmill](#), wanted input on its wearable robotic walking device called the “[Bionic Leg](#),” they turned to residents at [Sunny View Retirement Community](#) among others for feedback on how to improve the product.

The AlterG team worked to assess the Bionic Leg including rigorous testing and quality checks while developing an improved version. The computerized, bionic device is strapped onto the leg and provides assistance to a patient’s impaired leg by assisting in relearning leg motion and improving the ability to place weight on the affected leg. It is a therapeutic intervention to help people walk better and faster and to improve balance, including those suffering from ailments such as stroke, an orthopedic condition, multiple sclerosis or arthritis.

Eight residents from Sunny View Retirement Community took part in the yearlong feedback program for the purpose of improving the Bionic Leg. The test interviews were coordinated by the Front Porch Center for Innovation and Wellbeing. Resident and tester John Barsotti noted that the “initial design was a little too large and heavy. It was difficult to fit on my leg and ankle.” Subsequently, ankle modifications were made in the 2.0 version of the Bionic Leg.

In addition to the ankle modifications, AlterG made several other improvements to the Bionic Leg including ...

- New non-permeable material that is in direct contact with the user’s pants/legs making it simple to put on, easy to clean and more comfortable.

- New reversible foot sensors for quicker patient set-up and interchangeable sensor use.
- Updated cable wiring from the hardware to the foot sensor to make it easier for the therapist to apply a comfortable fit for a wide variety of patients.

“Community, resident, and consumer involvement is absolutely imperative to solutions and designs that meet the needs of older adults,” said Davis Park, director for the Front Porch Center for Innovation and Wellbeing. “AlterG has been forward-thinking in taking stock of the feedback from people using its technology, and Sunny View residents were happy to supply some of that feedback.”

AlterG began selling the new and improved Bionic Legs in July 2015.

About the Front Porch Center for Innovation and Wellbeing

The Front Porch Center for Innovation and Wellbeing is part of Front Porch®, one of Southern California’s largest not-for-profit providers of retirement living communities and affordable housing. The Front Porch Center for Innovation and Wellbeing strives to harness technology solutions that support and enhance wellbeing in older adults. The Front Porch Center’s core initiatives focus on how technology can: assist in maintaining brain health; enhance social connectedness; promote engagement and growth; empower control over health and wellness; prevent emergencies or serious events; and increase resources and support for formal and informal caregivers. The Front Porch Center for Innovation and Wellbeing is a signature program of Front Porch’s Humanly Possible® commitment to doing everything humanly possible to creatively meet the needs of those we serve today and in the future. The Front Porch Center is the winner of the Bronze Award for the Dignity category in the 2015 McKnight’s Technology Awards and the Aging 2.0 Pilot Pioneers 2015 Innovation Award. More information can be found at www.fpciw.org.

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