

Who Is ACP?

Accelerated Care Plus (ACP) provides progressive rehabilitation technologies, specialized treatment programs and advanced therapist training for over 4,000 skilled nursing homes, hospitals, outpatient clinics and home health agencies throughout the U.S. The Company's medical technology is also used extensively by professional, collegiate and Olympic sports teams to help accelerate recovery and improve performance.

ACP's mission is to "Revolutionize Rehabilitation" by enabling post-acute rehabilitation providers to treat more medically complex conditions and improve treatment outcomes for a broader range of patients while growing their clinical practice.

What Is The OmniVR™?

- The OmniVR™ is the world's first 3D "virtual rehabilitation" system designed specifically for aging adults and others with physical limitations.
- The technology is an important new tool for physical, occupational and speech therapists to help make therapy more fun and rewarding for patients.
- With the guidance of a therapist, one or two patients at a time can use the system to participate in a variety of therapeutic activities and exercises selected for their individual physical challenge or condition.

How Does It Work?

- Although the OmniVR™ has been developed around cutting-edge technology, it is very easy for therapists and patients to use.
- The system uses a unique 3D "time of flight" camera and specialized computer software that captures the patient's precise movement – or "avatar" – in real time, and introduces it into a computer simulated virtual environment displayed on a large monitor.
- Once the patient has entered the virtual environment, treating therapists use their expertise and clinical judgment to select the proper exercise program and parameters that best suit the patient's condition and treatment plan.
- The OmniVR™ includes six "skilled" therapeutic exercise categories including seated exercises, upper extremity exercises, balance, walking, wheelchair mobility and cognitive activities.
- The system has been designed to improve functional abilities through muscle strengthening, balance, movement, coordination, endurance and cognitive skills.
- At the end of each exercise program or activity, the system produces a "Training Summary" to help therapists measure the patient's ongoing performance and progress.



What Happens When Patients Are In A Virtual Rehabilitation Environment?

- The virtual environment provides a fun and entertaining way to motivate patients and engage them in the therapy process, and their recovery.
- When they interact in a computer simulated activity, they feel a sense of “presence” in the virtual environment and become “immersed” in that activity - which can help increase confidence and overcome fears they may have about standing balance, side-stepping or walking.
- Most importantly, performing therapy activities in a virtual environment encourages patients to exercise harder and longer to surpass their previous performance - which can ultimately contribute to improved function and recovery.



What Medical Research Supports “Virtual Rehabilitation”?

- There is an increasing volume of evidence demonstrating the value of virtual rehabilitation.
- Research suggests that patients will exercise harder and longer when “immersed” in a virtual rehabilitation environment providing positive reinforcement.
- This phenomenon is called a “Virtuous Cycle,” where patients receiving positive feedback feel an increased sense of motivation, which encourages them to perform more repetitions and/or exercise longer to surpass their previous performance.
- This motivation and encouragement is important for many aging adults, particularly those who are reluctant to participate in the therapy process or are fearful due to physical limitations.
- Research also shows that when virtual reality exercises are combined with traditional therapy techniques, rehabilitation outcomes can exceed outcomes generated by traditional therapies alone.
- Studies have demonstrated that the skills acquired in virtual rehabilitation can be successfully transferred to real-world functional improvements.

Who Will Use The OmniVR™?

- The OmniVR™ is a professional rehabilitation tool developed specifically for aging adults and others with physical limitations. In conjunction with a physical, occupational or speech therapist, the system can be used to assist in the treatment of a variety of conditions including stroke recovery, falls, arthritis, Parkinson’s, multiple sclerosis, neuromuscular re-education, falls, wheelchair mobility, cognitive impairment and general debility.
- The OmniVR™ system first became available to ACP’s client-partners in November 2010, making 3D “time of flight” camera technology available to seniors about the same time Microsoft launched their recreationally-based Xbox 360 Kinect™ system for younger audiences and “healthy normals.”



How Does The OmniVR™ Differ From The Nintendo Wii™, Microsoft Xbox 360 Kinect™, Or Similar Off-The-Shelf Video Game Products?

- The Wii™ and Wii FIT™ systems have been used successfully by many skilled nursing facilities to help residents and patients become more active.
- As a recreation-based system intended for full-functioning individuals, the Wii™ can only be used by approximately 15-20% of the patient population in most skilled nursing homes, due to the challenges associated with holding the controller and the faster paced, more complex graphics used.
- The Microsoft Xbox 360 Kinect™ is also a recreationally-based system that has been developed for younger, healthy individuals. The system's complex, fast paced graphics are not appropriate for most geriatric patients, and the activities are not focused on professional rehabilitation objectives.
- The OmniVR™ has been developed as a professional rehabilitation tool for older adults and others with physical limitations. The system's exercises and activities are developed around "functional" objectives related to strength, balance, mobility, gait, endurance and cognitive improvement.
- The OmniVR's specialized camera and software eliminate the need for a hand controller, and the speed/complexity of the graphics has been reduced to accommodate the needs of aging adults.
- The OmniVR's therapeutic exercise programs target key functional movements such as leaning, knee extension-flexion, reaching, sit-to-stand, squatting, stepping, and marching that are required for patients to regain mobility and independence.
- The OmniVR™ system features a variety of adjustable parameters that enable therapists to individualize the interactive activity to complement the patient's specific capabilities and condition.
- The OmniVR's interactive software provides positive feedback throughout the exercise session, rather than the "win-lose" approach used in recreational gaming systems such as the Wii™ and Xbox 360 Kinect™, which can be discouraging to patients.

What Is Next For The OmniVR™?

- ACP will continue to develop new software programs for the system, including those that focus on ADLs (Activities of Daily Living), which are the basic skills patients need to relearn in order to be discharged and return to their homes.
- In the coming months, ACP will also be integrating a number of "Assessment Functions" into the system such as a TUG Test (Timed Up and Go) and Functional Reach Test, which are two key evaluations used to benchmark a patient's functional condition and track their progress through the therapy process.

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