The Rehabilitation Center at Santa Clara Valley Medical Center continues a tradition of excellent care.
THERMA has VMC going for the gold...

LEED® Gold

Therma is part of the team that is building the newest wing of Santa Clara Valley Medical Center. When complete, residents of Santa Clara County will have a public hospital that meets California earthquake safety requirements.

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- High percentage of construction waste recycled
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- Healthy and energy efficient ventilation system
- Landscape design of plants and trees that need minimal amount of watering

*LEED (Leadership in Energy & Environmental Design) is certified by the United States Green Building Council, and is considered the standard for excellence in green building practices.

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The VMC Rehabilitation Center changes lives — including mine

The first time I stepped inside VMC, it was to interview for my current position, Executive Director of the VMC Foundation. A nonprofit executive by trade with no background in healthcare, I was candid with my guide — hospitals, I thought, are sad and depressing places. An optimist by nature, I wasn’t keen on spending my day in that kind of environment. And then I walked into the gym of the Spinal Cord Injury Rehabilitation Unit, and my life changed forever.

The gym was full of life, hope and energy. Music played as therapists, physicians, families and patients worked together to put shattered lives back on track. In a second, I knew that becoming Executive Director of the VMC Foundation was my kind of gig. VMC is already well known for providing emergency and trauma care to all residents of Santa Clara County, and for being the valley’s largest healthcare provider to children, the poor, uninsured and underinsured. But for the past 40 years, VMC has also been a leader in rehabilitating people with major spinal cord or traumatic brain injuries. Our Rehabilitation Center cares for hundreds of people each year, teaching people to walk, talk and live independently again. It is home to some of the most compassionate and hardest working healthcare professionals on the planet who work tirelessly on behalf of their patients. It is a place that perhaps better than any other represents the mission of VMC — world-class care open to all, regardless of ability to pay.

Inside these pages, you will experience just a few of the stories that make the VMC Rehabilitation Center a special place; stories of courage, innovation, struggle and perseverance. We hope that it gives you greater appreciation for the important role VMC plays in this community. But, mostly, I hope it inspires you to act, because we need your help.

That is because in just three short years, thanks to the voters of Santa Clara County, our Rehabilitation Center will move into a new facility that meets California’s stringent earthquake safety standards for hospitals. The new building will offer the same great care, but with state-of-the-art facilities, including new gyms, aquatic therapy pool and outdoor terrain park. Public dollars will cover the construction costs, but millions of additional dollars will be needed to outfit the center with the technology and equipment it needs. We need your help to bridge that gap.

The doors of Valley Medical Center are open to all. It’s up to all of us to keep it that way.

- Chris Wilder, Executive Director, VMC Foundation

Focus Bank is proud to support the VMC Foundation

Focus Business Bank is proud to recognize the Valley Medical Center Foundation and its support of one of the finest public hospitals in the United States. Because of the incredible effort of an outstanding Board of Directors, a hard charging and hyper effective staff and committed volunteers, this non-profit effectively leverages the outreach and programs of the medical center and makes them available to the entire community. Our Bank is proud to work with the VMC Foundation and honored to help them meet their goals.

Focus Business Bank is headquartered in Silicon Valley and committed to working closely with the public benefit community. Through creativity and expertise, we develop banking solutions which leverage the resources of our not for profit clients. In this era of scarcity, we have admiration for the contributions of our many non-profit clients and look forward to working closely with them in the future.

- Richard L. Conniff, President & CEO, Focus Business Bank

VMC Rehabilitation Center

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Thanks to VMC Rehab, after major injury, "things are going good"

A door jamb broke James Clark’s head-first fall on December 7, 2010. Feeling ill, he was walking to his bedroom to take a nap when he blacked out and crashed to the floor. James, who is a chiropractor, says that when he came-to he understood instantly the gravity of his circumstances. Minutes later, he conveyed to paramedics on scene that he was paralyzed. Doctors soon confirmed his self-diagnosis. James had suffered a C4 spinal cord injury and was immobile from the clavicle down.

James was admitted to the Rehabilitation Trauma Center at Santa Clara Valley Medical Center (VMC) in late December after spending nearly three weeks at a facility closer to his home. “When I came here, I was in bad shape,” James says. He had pneumonia and was on a mechanical ventilator. Within a couple of weeks, James was weaned from the ventilator and was transferred to the Spinal Cord Injury Rehabilitation Program.

“Since I’ve gotten here, I’ve done nothing but improve,” he says. “It’s due to being taken care of.” The spinal cord injury physicians at VMC are Board-certified in physical medicine and rehabilitation, each averaging nearly 15 years of experience in rehabilitative medicine. As well, the nursing and therapy staff, comprising a speech pathologist and physical, occupational and recreational therapists, are all specially trained in their field.

In addition to James’ daily participation in intensive physical and motor skills therapies, he and his wife Liz are learning critical skills needed to manage his injury once at home. The goal, explains James’ attending physician Mark Nguyen, M.D., is “to decrease the burden of care through patient education.”

Josephine Egwin, R.N., James Clark and Physical Therapist Shonna Moran, P.T. share a laugh as they prepare to transfer Clark from his bed to an electric wheelchair. Clark says “since I’ve gotten here, I’ve done nothing but improve.”

To James, the training is important to self-sufficiency: “It’s almost like being in school,” he says. “They’re training you so that when you’re out of here you can take care of yourself. Being more independent is progress.”

In less than two weeks in the Rehab Program, James has shown improvement in his swallowing capabilities and has developed movement in his thumb and toes. “This place is excellent. There was such a turnaround once I got here,” James says, locking eyes with Liz as she nods in agreement.

Looking ahead, James is planning on resuming his role this summer as a high school water polo coach. “Things are going good,” he says.
If not for the onslaught of personnel vying for a split second of his time, Jeffrey Englander appears as any-man dressed in casual khakis and a classic button-down. He addresses each person with swift precision before slipping through the crack of a closing door. Jeffrey Englander, M.D., Medical Chief of Rehabilitation at Santa Clara Valley Medical Center (VMC), has an appointment to keep with one of his patients.

A visionary in physical medicine and rehabilitation, Dr. Englander is recognized among the nation’s leading experts in spinal cord and traumatic brain injury rehabilitation. The Brain Injury Association of America recently presented him with the esteemed Sheldon Berrol, M.D., Clinical Service Award for his contribution to improving the quality of care, professional training and education in the field of brain injury.

At home at VMC, Dr. Englander’s contribution spans nearly 30 years where he has touched the lives of thousands of people with a spinal cord or traumatic brain injury. He is also instrumental in VMC’s designation by the National Institute on Disability and Rehabilitation Research (NIDRR) as a Traumatic Brain Injury Model System Center, a distinction the hospital has held consecutively since 1988.

“Brain injuries and spinal cord injuries are a lifetime commitment. People are living with their injury for a lifetime,” Dr. Englander says. “Model System Centers understand the commitment from trauma to daily living over time.”

Model System Centers must demonstrate excellence in clinical and trauma care, maintain strong partnerships with complementary departments such as neurology, have systems in place for following people post-injury, and participate in leading research projects. Under Dr. Englander’s leadership, VMC has pioneered many procedures and protocols used now in brain injury and spinal cord injury rehabilitation institutions across the country.

VMC’s approach to research, according to Dr. Englander, is what makes VMC a stand-out facility for cutting-edge studies and clinical trials. “Research projects are designed with the subjects in mind,” says Dr. Englander, himself often a principal investigator. “We’re using research projects to address things that are important to the people who will be participating in the study. People with [spinal cord and brain injuries] want to do something. We listen to that. We do things that are synergistic with their interests.”

As such, the Rehabilitation Research Center at VMC is currently conducting significant patient-centered studies, among them: “Fatigue and Insomnia After Brain Injury” to investigate the prevalence of insomnia and fatigue in individuals with traumatic brain injuries at 1, 2, and 5 years post-injury; and “Dysphagia in Spinal Cord Injury” to determine the incidence of swallowing difficulties and related risk factors and to compare the efficacy of the speech pathologist BSE and VFSS as screening tools.

Also, VMC was recently approved for two very important clinical trials for spinal cord injury that explore potentially revolutionary approaches to rehab care; one using human embryonic stem cells and the other a robotic exoskeleton (see page 8 and 9).

As the team of rehabilitation experts at VMC continues to advance protocols and procedures in stroke, traumatic brain injury and spinal cord injury rehabilitation medicine, Dr. Englander says simply, “We try to help people carry out their goals.”
Shonna Moran, P.T. and Josephine Egwin, R.N. prepare James Clark for morning therapies. VMC rehab nurses provide 24-hour care to all patients, from administering medication to practicing skills learned during therapy. Nurses play an instrumental role in teaching patients and families how to manage their care, from checking the skin for pressure ulcers to bowel and bladder care.


Eric Stiegall, who sustained a spinal cord injury from a motorcycle accident, lifts weights in the spinal cord gym. All patients must do a minimum of 3 hours of therapy per day.

A Day In VMC Rehab

VMC Rehab comes alive each day with activity that few other centers in the country can match. As a comprehensive, acute care center, VMC operates specialized units for spinal cord injuries, traumatic brain injuries, strokes and other conditions that might require rehabilitation care. Physicians, Nurses, Physical Therapists, Occupational Therapists, Speech Therapists, Recreational Therapists, Case Managers, Psychologists and others bring enormous expertise and compassion to their work. In an attempt to capture the daily rhythms of VMC Rehab, Photojournalist Dino Vournas spent a day in the unit talking with staff, patients and patient families.

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For those without access, VMC Foundation program brings technology to rehab patients

Assistive technology resources were scarce in spinal cord injury rehabilitation when Debbie Burdsall joined the Rehabilitation Center at Santa Clara Valley Medical Center (VMC) in 1988 as an occupational therapist. Today, she is the face of the Center’s innovative Technology Access Program (TAP).

TAP was created in 2004 after Silicon Valley IT specialist and former patient Ron Sidell partnered with the VMC Foundation to install a wireless network in the Spinal Cord Injury and Rehab Trauma Center units. Soon after, TAP was on a high-tech trajectory looking for a master to champion its cause. With a professional background in occupational therapy and a natural ability to connect with people, Burdsall was a natural choice to lead the charge as Technology Champion.

“Technology has become a more integral part of the rehabilitation process. We use technology to facilitate the patient’s independence and to help patients and their families stay connected with the outside world,” Burdsall explains.

TAP provides access to cutting edge technologies from software programs and adaptive computer equipment to video conferencing for connecting with faraway family and friends. Burdsall works closely with the Rehab Center’s occupational therapists and speech pathologists to determine alternative equipment and materials to fit a patient’s functional needs. Tools range from simple computer monitor magnifiers to voice recognition software or a head-controlled computer mouse for people with high level injuries.

TAP also provides for web-based patient education that allows patients to research adaptive equipment and essential home modifications in a convenient forum with their rehab team. “The goal of rehab is to get people back to living,” says Burdsall. “Technology like this makes a big difference.”

A program of the VMC Foundation, TAP is funded entirely by charitable donations such as those made by founding sponsor David Wolfe with the Kinetics Foundation and Attorney Richard Alexander who provided 25 brand new laptop computers for TAP’s onsite Laptop Loaner Program. A partnership with Logitech launched TAP’s Virtual Visit program, outfitting computers with videoconferencing capabilities.

While technology brings a wealth of advances to physical and neurological rehabilitation onsite, the cost of technical equipment remains a barrier to many people once they leave VMC. Burdsall, however, sees cost-effective opportunities in new consumer-based technology. She speaks of the possibilities of sending patients home with a personal laptop or iPad so they can continue the rehabilitation process with technology that is accessible to their budget. “That’s my dream,” she says.

VMC Rehab amongst first in the nation to trial stem cells

Medical breakthroughs that change the course of history warrant preeminent partnerships. That’s why Stanford University School of Medicine looked no further than Santa Clara Valley Medical Center (VMC) in its pursuit to redefine spinal cord injury regenerative care. VMC in January became one of only three sites in the country to be FDA-approved for a ground-breaking human embryonic stem cell clinical trial for spinal cord injury.

“VMC is uniquely placed because of our affiliation with Stanford University and our 40-year history of leadership in spinal cord injury to lead a revolution in stem cell medicine,” says Stephen McKenna, MD, VMC Rehabilitation Trauma Center director. “VMC is the only center west of the Mississippi able to provide stem cells for spinal cord injury.”

Dr. McKenna expects to enroll two VMC patients in the phase-1 trial over the next 12 months. Designed to establish the safety of treatment, the phase-1 trial involves a surgical procedure to implant stem cells within two weeks of a person sustaining a specific thoracic spinal cord injury that results in complete paraplegia. Eligible participants must be physician referred.

Stanford will prepare the stem cells for phase-1, while neurosurgeons will perform the surgery at VMC. As an acute spinal cord injury rehabilitation facility and a Rehabilitation Trauma Center licensed also as an ICU, McKenna says that VMC is physically set up to do these kinds of trials. “Patients can start rehab while they’re still critically ill. Our Rehab Trauma Center knows how to manage the complications of spinal cord injury,” he explains. “Excellent therapy maximizes the potential for maximum recovery.”

Looking ahead, McKenna hopes to see a cure for complete paralysis within 10 years. “There are new treatments that we are developing in conjunction with public and private groups which will change the course of this condition within our lifetime,” he says.
The Rehabilitation Center at Santa Clara Valley Medical Center (VMC) is literally taking giant steps forward in helping paraplegics to walk. In February, VMC became the first spinal cord injury rehabilitation center in the United States to test the new ground-breaking eLEGS technology in an inpatient clinical setting. This exciting breakthrough in rehabilitation technology has the potential to augment wheelchair use for millions of people living with paraplegia.

"There are certain moments in medical history that are game changers. This is one of those moments," says Akshat Shah M.D., Chief of Spinal Cord & Orthopedic Rehabilitation, Department of Physical Medicine & Rehabilitation, and principal investigator in the eLEGS clinical trial, "Safety and Preliminary Efficacy of Robotic Exoskeleton to aid in ambulation after Spinal Cord Injury."

eLEGS is a bionic exoskeleton that was pioneered by Berkeley Bionics®, a Berkeley-based company that develops and manufactures powered and artificially intelligent human exoskeletons. The battery-operated, wearable eLEGS device creates knee flexion that translates into a step. Real-time computer technology draws on sensors and input devices to orchestrate every function of a single stride, helping people to walk as naturally as possible.

At VMC, Dr. Shah and a team of physical and occupational therapists will work with up to 10 spinal cord injury patients this year to determine how best to use eLEGS technology in an inpatient rehabilitation setting. "There's not too much in life as tragic as a spinal cord injury. It's my responsibility and my privilege to do what I can to fix that," says Dr. Shah.

Among the requirements for paraplegics to use eLEGS is the ability to self-transfer from a wheelchair. The eLEGS device then powers the user up to a standing position. A patient’s aptitude and condition of injury will determine walking speed.

As eLEGS technology becomes more accessible in spinal cord rehabilitation programs, Dr. Shah speaks of the future: "I think about how satisfying it would be to look in a person's eyes when they ask if they'll walk again and I can say, 'yes, maybe not the way you're used to, but you will.'"

While the clinical trial has started, the VMC Foundation will seek additional resources to make sure sufficient funding exists to see the project to completion. "There is a huge opportunity to sponsor what could be a revolutionary project," says Chris Wilder, Executive Director of the VMC Foundation. "Great leaps forward in science and technology always require a benefactor. A small investment here can go a long way in changing lives."
Excellence in spinal cord injury (SCI) and traumatic brain injury (TBI) rehabilitation is a 40-year distinction of the Rehabilitation Center at Santa Clara Valley Medical Center (VMC). The Rehab Center currently treats upwards of 500 people each year in its SCI, TBI and stroke rehabilitation programs, which are led by a team of nationally-recognized physiatrists, nurses, therapists and speech pathologists. By 2014, the Rehabilitation Center will move into a new facility that merits the sophisticated level of renowned rehabilitation care offered at VMC.

“We really thank the voters of this county for understanding the importance of having a world-class hospital,” says Chris Wilder, executive director of the VMC Foundation. “Santa Clara Valley Medical Center stands toe-to-toe with any hospital in the country.” Voters of Santa Clara County overwhelmingly supported Measure A in 2008 to raise $800 million to help VMC meet California’s unfunded mandate for seismic safety for medical facilities.

Among the services that will be located in VMC’s new 370,000-square foot, 6-story building are two floors dedicated to Rehabilitation Center beds, providing private rooms to patients.
An example of an ICU in the new facility, where many rehab patients might start their stay.

A rendering of the new lobby, with an abundance of natural light.

In the new building, patients will have private rooms with space for family visits.

“VMC is going to have a facility that matches the quality of care of our Rehab Center.”

– CHRIS WILDER, EXECUTIVE DIRECTOR, VMC FOUNDATION

with SCI or TBI. Rehabilitation Therapy Services for spinal cord and brain injury patients will be on the ground floor with convenient access to a new aquatic therapy center and Independence Plaza terrain park.

Unique to VMC, Independence Plaza is an innovative outdoor area designed to teach rehab patients how to negotiate various terrain elements either on foot or in a wheelchair. Grass, gravel, uneven surfaces and curbs are among the hurdles. The Plaza will also offer a peaceful setting for other outdoor therapies, family time and leisure. Thanks to generous pledges made by The Valley Foundation, led by Chairman Phil Boyce, the Sovereign Order of St. John and countless other supporters including Dr. T.J. Rodgers of Cypress Semiconductor, “VMC is going to have a facility that matches the quality of care of our Rehab Center,” says Wilder.

In addition to providing a cutting edge medical facility for patients, the New VMC will meet LEED Gold certification in green building and design as outlined by the U.S. Green Building Council. Among the improvements are efficiency measures that are expected to save VMC $450,000 annually in energy costs.

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“We are so impressed with Focus Banking's creative thinking and how they have assisted in streamlining our processes. Without being asked, they contact us with ideas to save time and money. How can you ask for more than that!”

—Chris Wilder
Executive Director
VMC Foundation

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