Patients at St. Charles Hospital can now receive state-of-the-art treatment for dysphagia, swallowing difficulties caused by stroke, brain injury, radiation treatment or other neurological conditions.

St. Charles speech language pathologists have received specialty training in the use of VitalStim® Experia, a technologically advanced electrical-stimulation, or "e-stim," device which sends electrical impulses to the muscles involved in swallowing. Muscles needed to complete the swallowing process are retrained through a small current which passes through electrodes attached to the patient’s neck.

Unlike earlier “e-stim” devices, VitalStim® Experia provides St. Charles therapists with biofeedback on muscles specific to individual patients. Therapists factor this feedback into highly customized therapeutic treatment plans. The device also allows patients to see and hear themselves swallowing so they can modify their performance accordingly.

“The additional, quantifiable information from VitalStim® Experia adds another dimension to muscle strengthening and re-education techniques that have been used for many years, including here at St. Charles. Our speech language pathologists use VitalStim® Experia as a tool to further measure the initial status of each patient, set treatment targets, track progress over time and adjust treatment around each patient’s ongoing, individual needs,” said Carrie Pascale, lead speech language pathologist, St. Charles.

Pascale added that, “the audio and visual feedback also has the potential to help our patients grasp the therapist’s instructions more easily and witness their own progress. This is especially important at a time when many are struggling with motivation and cognition, or thought processing.”

During initial sessions, St. Charles speech language pathologists utilize VitalStim® Experia to measure mouth, neck and throat muscle function. The information acts as a numerical baseline against which future progress can be measured. Therapists then set targets and begin treatment. They can apply VitalStim® Experia regularly to help ensure that appropriate muscle groups are rehabilitating as expected and make any necessary adjustments.

Pascale believes the benefits for patients are enormous stating, “No two patients are alike, so treatments should be extremely individualized. VitalStim® Experia gives us the data to deliver this kind of treatment, which we believe offers a greater chance at recovery.”

For more information, please call (631) 474-6797.

www.stcharlesrehab.org
Scoliosis is a disorder that can affect both children and adults, causing an abnormal curve of the spine or backbone. Traditional medical management of scoliosis is complex and is typically determined by the severity of the curvature and skeletal maturity. Conventional options for children include observation, bracing and/or surgery while treatment for adults usually focuses on relieving pain, bracing, exercise and/or surgery. Now, a promising therapy option is available in the United States for individuals diagnosed with scoliosis.

Known as the Schroth method, it is a conservative physical therapy program for the treatment of scoliosis in patients of all ages and in all stages of treatment; before surgery, after surgery and especially, if surgery is not indicated. The therapy is named after its founder, Katharina Schroth, who suffered from moderate scoliosis and in 1927, at the age of 16, underwent treatment with a steel brace. Deciding there must be a more functional method of treatment, she came up with an innovative method of therapy, based on breathing technique and stretching exercises, after having been inspired by watching a balloon inflate.

Today, the Schroth Method is strongly supported across Europe and has gained a very strong reputation in the United States. The therapy is tailored to each patient’s specific curves and focuses on exercises that include stretching, strengthening and breathing techniques that counteract the rotation of spinal curvature. By visualizing and feeling the parts of their body respond to their breathing, patients learn a new way to breathe and align their body. Working with mirrors, they receive new visual information and are asked to remember how the alignment and corrections feel. Following detailed vocal guides from the therapist, the patient is then able to maintain the correct posture and practice it in various positions and in their daily activities.

For patients, the results of the Schroth method are overwhelmingly positive and include a decrease in pain, slowing or halting of the curvature progression, improved cardio-pulmonary function, mobility, and postural stability.

The Schroth method for treatment of scoliosis is now offered at St. Charles Hospital’s Outpatient Rehabilitation site located in Melville by a physical therapist specially certified in 3-D scoliosis treatment according to the principles of Katherina and Christa Lehnert Schroth.

For more information on the Schroth method or for an appointment, please call (631) 474-6797.
Jun Zhang, MD, recently received an additional board certification in brain injury medicine (BIM), a new subspecialty certification from the American Board of Physical Medicine and Rehabilitation (ABPMR). Dr. Zhang is director of Brain Injury Rehabilitation at St. Charles and one of only two physicians in Suffolk County to currently hold this certification.

According to the ABPMR, the new certification was established “because of the increased diagnosis and treatment options for patients with brain injuries and the growing need to monitor, assess, and advance new technologies for patients.”

Dr. Zhang has extensive experience in brain injury medicine and research including acting as the hospital’s principal investigator in a multi-center trial evaluating the effectiveness of a functional electrical stimulation unit in stroke rehabilitation. He is also involved in a collaborative research study investigating the neurological mechanisms involved in post-stroke apathy.

Dr. Zhang completed residency training in Physical Medicine and Rehabilitation at Montefiore Medical Center, New York, followed by a fellowship in Stroke Rehabilitation at the Kessler Rehabilitation Institute in New Jersey. Board certified in Physical Medicine and Rehabilitation, Dr. Zhang is a clinical assistant professor in Physical Medicine and Rehabilitation at the School of Medicine, State University of New York at Stony Brook.

For more information about brain injury rehabilitation at St. Charles, please call (631) 474-6797.

Andrew Goldfine, MD, has joined St. Charles Rehabilitation as a clinical researcher.

Dr. Goldfine’s research focuses on exploring the neurological activity of brain injured patients in order to develop rehabilitative treatments. He holds a concurrent research position with Stony Brook University Neurosciences Institute and will spearhead a joint St. Charles/Stony Brook study on post-stroke apathy, a condition affecting approximately 35% of stroke survivors. Jun Zhang, MD, physiatrist and director of Brain Injury Rehabilitation at St. Charles, will join Dr. Goldfine on the study.

Dr. Goldfine comes to St. Charles from Burke Medical Research Institute and Weill Cornell Medical School, where he served as assistant professor, Neurology, and completed a research fellowship. He now serves as an assistant professor of Neurology at Stony Brook University School of Medicine.

Dr. Goldfine received his medical degree from Robert Wood Johnson Medical School and completed a fellowship in neurorehabilitation and neuroimaging at University of California at Los Angeles. He holds a master of science in clinical investigation from Weill Cornell Medical College and completed clinical research training at the National Institutes of Health.

The Inpatient Stroke Rehabilitation Program at St. Charles Hospital is accredited as a stroke specialty program by CARF, the Commission on Accreditation of Rehabilitation Facilities. CARF is the highest level of rehabilitation accreditation available. St. Charles Hospital is a New York State designated stroke center and a Joint Commission Primary Stroke Center. In October 2014, St. Charles Hospital received its fifth consecutive Get With The Guidelines®-Stroke Gold-Plus Quality Achievement Award from the American Heart Association/American Stroke Association.

For more information about stroke and brain injury rehabilitation at St. Charles, please call (631) 474-6797.
PATIENT SPOTLIGHT
JOE CALAGERNO

Six years ago, I sustained a brain injury after my car was hit from behind by another vehicle. My life changed in a dramatic way. I suffered multiple strokes, impaired mobility, severe aphasia, and decreased cognitive ability. I was a small business owner who could no longer write my name, complete checks, tell time, read, or hold conversations with customers, family and friends. I needed a walker or cane to get around and could not drive. I could not maintain my business.

Today, I drive and walk independently. I am active in my community because of the compassion and devotion of the therapists and staff at St. Charles. Everyone at St. Charles takes the time to help make you your best, even when you are at your worst.

The therapists at St. Charles helped me learn new routines for completing tasks that are important to me. The comprehensive rehabilitation services at St. Charles, including supportive psychological counseling, helped me understand my brain injury, express my frustrations and adjust to the limitations I was experiencing.

I now try and “give back” to St. Charles for all that they have given me. I helped start a stroke support group at the hospital. I also speak to various community groups and serve as a member of the St. Charles Hospital Patient and Family Advisory Council. Being a member of the Advisory Council helps me make a difference to patients who face the same struggles as I did during my rehabilitation and recovery.