

KENNY

Independent

Sister Kenny® Rehabilitation Institute, located at 28th Street and Chicago Avenue in Minneapolis, Minn., is the leading rehabilitation provider in the region. The Institute provides programs and services at five Allina hospitals — Abbott Northwestern in Minneapolis, United in St. Paul, Unity Hospital in Fridley, Mercy in Coon Rapids and Buffalo Hospital in Buffalo — and outpatient care at 18 community-based Sister Kenny Sports & Physical Therapy Centers.

The grand opening event for the **42nd International Art Show by Artists with Disabilities** will be on April 21, 2005, at Abbott Northwestern Hospital. The show is one of only a handful of judged art shows in the country for those with a physical or mental impairment. To be added to the mailing list or to receive further information about this year's event, call 612-863-4463 or send an e-mail to sisterkenny@allina.com.

Sister Kenny Foundation's Third Annual Art Gala and Auction will be on June 14, 2005, at the Minnetonka Center for the Arts. The event, a fundraiser to benefit the Sister Kenny Rehabilitation Institute, includes live and silent auctions for original work from local artists and other unique items. The event also features live music, wine and an hors d'oeuvre buffet. More than 200 people attended last year's event, which raised more than \$50,000 to fund the Institute's innovative patient services, clinical research, advanced technology and professional education. To learn more about the 2005 event, call 612-863-4145.

A letter from our leader



I'm proud to report that Sister Kenny Rehabilitation Institute has many exciting projects in the works for 2005.

This spring, we will expand our physical

therapy services in the metro and open new clinics in Shoreview and Forest Lake (see related article on back cover).

We are also in the process of obtaining funds from grants and philanthropy to create a Sister Kenny Research Center to ensure that our community has the access to the latest breakthroughs in rehabilitative care.

Research is vital to providing the best patient care

How do you make sure you or a family member is receiving the most advanced care possible? By choosing a rehabilitation facility that is also a leading research center, where patients often have access to an innovation in just one year from the time the discovery is made rather than the five years it can take if a discovery is made elsewhere.

At Sister Kenny, we have a history of conducting research that has led to new, more effective rehabilitative techniques, particularly in the area of technology-enhanced rehabilitation (see related article on p. 5). This use of

technology to improve rehabilitation is already helping our patients — and patients across the country — achieve faster, better results.

However, Sister Kenny Rehabilitation Institute's research efforts are hampered by the lack of a dedicated research staff, including doctorate-level principal investigators. Without these resources, it is difficult for the Institute to attract the federal grants that are so important in sustaining a long-term research program. A research center will also allow us to act as the lead researcher, enabling us to choose the research projects and collaborators that will most benefit our patients.

I am convinced that a successful research center will improve patients' outcomes, advance the skills of current clinicians, and help us attract new clinicians interested in working for an organization focused on discovering and applying the best rehabilitative techniques.

Learn more about the Sister Kenny Research Center in a future issue of *Kenny Independent*.

Roberta (Bobbie) Dressen, vice president, Sister Kenny Rehabilitation Institute

Hand rehabilitation: help for hands that hurt

Protect your hands

Hand therapist Marcia Sitz suggested these tips to protect your hands.

Pay attention to ergonomics at home and in the office.

Use good posture and proper positioning.

Don't overdo it when participating in an activity that involves strenuous use of the hands.

Use tools for tasks that could strain or injure your hands.

Follow directions and protect your hands when using table saws, lawn mowers, snow blowers and other equipment.

You don't have to be a musician or surgeon to know how important your hands are. Many occupations, hobbies, sports activities and daily household tasks are nearly impossible if your hands are painful or injured. Unfortunately, the hands are vulnerable to a variety of problems because of their complexity and the many demands we place on them.

"Hand problems are quite common," said Marcia Sitz, a certified hand therapist at Sister Kenny Rehabilitation Institute. Diseases like osteoarthritis and degenerative arthritis often affect the hands, and traumatic injuries and repetitive motion injuries are common. Injuries to the arm and shoulder can also affect how the hand functions.

Hand therapists are available at most Sister Kenny locations, including Abbott Northwestern Hospital in Minneapolis, Mercy Hospital in Coon Rapids, and at Sister Kenny Sports & Physical Therapy Center clinics in Edina, Fridley, Plymouth and Richfield.

Rest, splinting, anti-inflammatory medications and education on positioning and ergonomics are helpful treatments for many hand conditions. Hand therapists may also employ treatments like whirlpool, ultra-sound and electrical stimulation. Biofeedback, which measures the electrical activity in a muscle, helps to pinpoint which muscles are contributing to stress and pain.

"New mothers are prone to hand injuries. They're often leading with their thumb when lifting the baby, which strains the tendons at the side of the wrist."

Although hand problems can affect anyone, Sitz noted that some occupations are especially hard on the hands. That includes musicians, dental hygienists, hair stylists, athletes and others. "New mothers are prone to hand injuries," said Sitz. "They're often leading with their thumb when lifting the baby, which strains the tendons at the side of the wrist."

The specialized training that hand therapists receive enables them to help patients regain function and productivity without risking re-injury. "It's important to know when rest is required, when you can have mobilization with protection like a splint, and when it is safe to return to normal activity," said Sitz.

For more information about hand therapy, call 612-863-5036.

Hand therapy: two success stories



Like many musicians, jazz guitarist Paul Hintz has had injuries over the course of his career. He has also tried to learn how to avoid them. This year, a much busier performance schedule resulted in pain and stiffness in his left shoulder, elbow and hand. Working with a certified hand therapist, he often brought his guitar as well as his portable stool to therapy sessions. The therapist helped him improve his positioning and recommended specific strengthening and relaxation exercises. She also used biofeedback to determine exactly where tension developed as he played. Now Hintz is back to playing pain-free.

Mary Lofy's broken elbow healed, but the prolonged immobilization left her in significant pain and with limited mobility of her arm. She was referred to a certified hand therapist and was diagnosed with complex regional pain syndrome. Her treatment required gentle stretching, manipulation and medication to calm hypersensitive nerve endings. Gradually the therapist introduced exercises to strengthen the hand, arm and shoulder. While she still has some hand stiffness, Lofy has gained significant strength and range of motion in her arm.

Inpatient stroke rehabilitation fosters independence

Although unable to speak or move, Bonnie Aldinger was aware of her surroundings. Moments earlier she had been talking to her sister on the phone. “But I started talking gibberish and then my head hit the floor.”

Fortunately, her husband Gaylord had just walked into the room. She remembers him asking if she was all right. She even remembers the paramedics arriving at her Coon Rapids home. “But then I blacked out. The next thing I remember I was in the hospital and they were telling me to blink once for yes and twice for no.”

Aldinger, who is 62, learned that she had had a stroke. Once she was stabilized, she was transferred to Sister Kenny Rehabilitation Institute. “And I took my first step the same day,” said Aldinger.

A hallmark of inpatient stroke rehabilitation at Sister Kenny is intensive therapy that begins almost the moment patients arrive, said Tama Almquist, CRRN, a case management specialist.

“Stroke patients get a minimum of three hours of therapy a day — and many patients get more than that. We know that even people with mild strokes benefit from mobilization of the affected extremity,” said Almquist.

The intensive therapy during Aldinger’s three-week stay, combined with her determination, helped her make steady progress.

From the beginning, Aldinger said, “I knew that I would beat this thing. But it’s quite a journey. You have to learn how to do everything — even the most mundane things that you take for granted, like getting the cap off the toothpaste.”

Aldinger says she also benefited from her therapists’ constant encouragement and from

the variety of therapies that were available to her. She found that Lite Gait, a device that supports the patient while he or she walks on a treadmill, was particularly helpful.

Aldinger was also impressed by the staff’s commitment to their patients and how they celebrated each sign of progress. She recalled when she was able to “graduate” from eating thickened liquids to a more normal diet. “All of my therapists and nurses knew about it the next day. The communication between them is just phenomenal.”

According to Almquist, the inpatient stroke team meets every day to review the current status of all patients. In addition, caregivers — including physical and occupational therapists, speech-language pathologists, a social worker, therapeutic recreation specialist and sometimes a psychologist — meet once a week for an in-depth care conference on each patient. “That’s where we look at every aspect of a patient’s situation — self care, bowel and bladder control, mobility, swallowing, communication, psycho-social issues, coping and adjustment, discharge planning — and discuss if he or she is on track with the goals for the stay.”

In addition to the goals that her caregivers set for her, Aldinger said she had a major goal for herself. “We go to Texas each winter and I need to be able to climb the steps there. I knew I had to learn to walk again or I would be sleeping on the beach,” she said.

Now, a year and a half after her stroke, Aldinger is grateful to have her life almost back to normal. “Your whole life can change in a second. It does get better, but you have to want to get better.”

Aldinger was also impressed by the staff’s commitment to their patients and how they celebrated each sign of progress. “All of my therapists and nurses knew about it [my accomplishment] the next day. The communication between them is just phenomenal.”

Kenny Grad School

Kenny Grad School is a series of education and support programs for stroke survivors and their caregivers. Program attendees learn about the physical and emotional impact of stroke, and the rehabilitation process and affirmation process one experiences after a stroke.

The spring 2005 sessions will be held on Wednesdays, from 9 a.m. to noon, at Abbott

Northwestern Hospital in Minneapolis on April 13, 20 and 27; and May 4, 11 and 18. The six sessions cost \$10 per person.

Space is limited, so register early by calling 612-863-4996. Visit www.sisterkennyinstitute.com for more information.

Kenny Grad School is supported and sponsored by the Sister Kenny Foundation.



Free for those those with spinal cord injuries, those who have experienced strokes and their families.

Reduce your risk of injury while running outdoors in cold weather

Below are tips provided by physical therapists John Hoops and Rickie Walkden from the Sister Kenny Sports & Physical Therapy Center to reduce your risk of injury while running in cold weather.

Warm up

Before a run, warm up by walking briskly for approximately five minutes to prevent injuries to your muscles caused by cold weather. After your brisk walk, run the first mile relatively slowly before accelerating to a faster pace.

Stretch

Perform your stretches after running when muscles are warm to lessen the likelihood of injury.

What to wear

In cold weather, it's important to layer your clothing to stay warm while running. We recommend three layers for the top:

- First layer — *Cotton works well because it wicks moisture away from the skin better than other material. A turtleneck or long-sleeved shirt is ideal.*
- Second layer — *Wear a sweatshirt or fleece to keep warm.*

- Outer layer — *Wear a nylon jacket that is ventilated to allow heat to escape once your body gets warm.*

On your legs, wear long underwear as a first layer, and sweat pants or ventilated nylon pants as an outer layer. Wear a warm hat, mittens or gloves, and a face mask when the temperature or wind chill is low enough to cause frostbite.

If it's dark outside, wear reflective clothing or place reflective tape on the front and back sides of your outer layers.

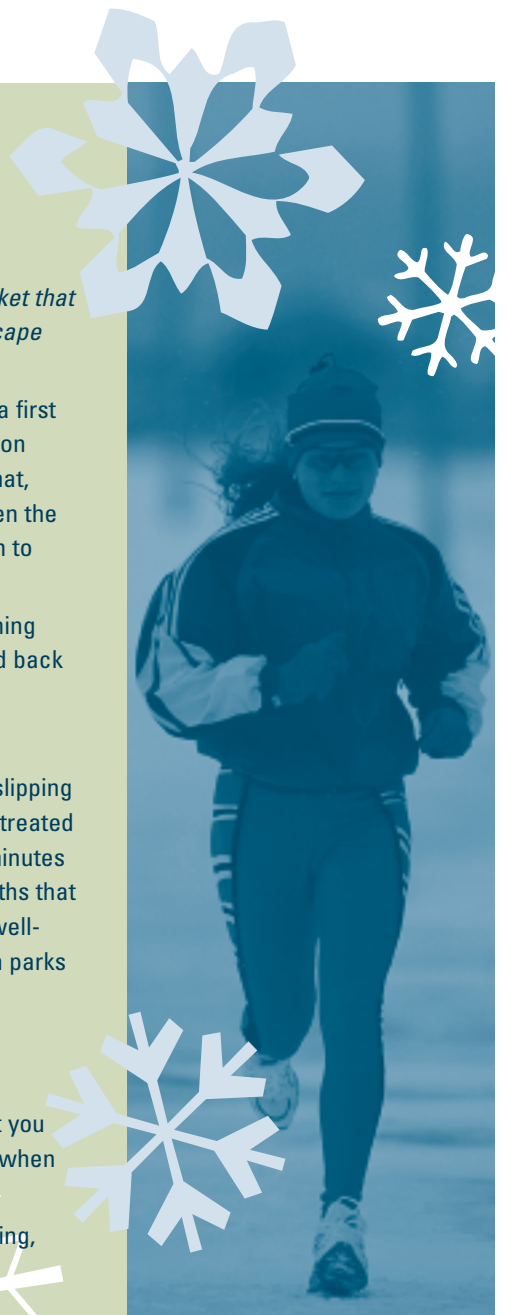
Injuries

The greatest risk for winter runners is slipping and falling. Bruises from falling can be treated in the first 24 hours with ice for 20-30 minutes at a time. To prevent injuries, run on paths that have been cleared of snow. The most well-maintained running paths are usually in parks and around lakes.

Safety

Runners should always carry a form of identification. We also recommend that you tell someone where you are going and when you will be back.

To learn more about cold weather running, call 952-914-8071.



Focus on a facility: Sister Kenny Sports & Physical Therapy Center-Edina

The Sister Kenny Sports & Physical Therapy Center-Edina is located in Suite 200 of Abbott Northwestern's Center for Outpatient Care, on the northeast corner of highways 169 and 494. Four therapists provide physical and hand therapy at this clinic location. They work closely with patients to treat, manage and prevent various injuries, including back and sports-related injuries.

One of the unique services at the center is running videoanalysis, which is the use of

digital cameras and a computer (along with a standard musculoskeletal assessment) to analyze an individual's running gait. The analysis is used to understand why an individual experiences pain or injuries while running, and to develop an individualized treatment plan. A patient must be referred by a physician to receive this service.

For more information about the Sister Kenny Sports & Physical Therapy Center-Edina, call 952-914-8065.



Violinist has “come a long way” with virtual reality

As a former All American wrestler, Norman Friederichs is no stranger to competition. That’s one reason he became so interested in a new form of rehabilitation technology that is helping him recover from a stroke.

The technology is called Interactive Rehabilitation Exercise, or IREX. It is being used at Sister Kenny Rehabilitation Institute to help patients with strength, endurance and balance problems. A variety of patients can benefit from the technology, including patients recovering from spinal cord injury, stroke and traumatic brain injury.

The system includes a computer loaded with virtual reality software, a digital camera and a monitor. The camera projects the patient’s image on the monitor, which also shows a virtual reality environment such as a ski hill, soccer field or shark-filled ocean. The patient interacts with the environment by catching or kicking balls, ducking to escape danger, or moving to avoid an obstacle.

Despite Friederichs’ wrestling background, it was a desire to resume his violin playing that led him to Sister Kenny. Friederichs’ stroke occurred three years ago. Although he had made good progress in his recovery, “I had very limited use of my right arm.”

Before his stroke, Friederichs was a patent attorney by trade. He had played the violin for nearly 50 years, most recently with the St. Paul Civic Symphony. He longed to return to his instrument. “I could still do the fingering, but I couldn’t do much bowing,” he said.

His physiatrist knew that Jennine Speier, MD, medical director of Sister Kenny Rehabilitation Institute, worked with instrumentalists and referred him to the Institute.

One day his therapist suggested that he try the IREX technology.

“I’m a competitive person, and needless to say, this caught my attention right away,” said Friederichs. He especially enjoyed the downhill ski course and the soccer and volleyball games. Even his wife Kate enjoyed the therapy. “I would get so fired up that I would be cheering for him,” she said.

Friederichs recalled the drive home after his first session with IREX. He told his wife, “I was so excited that I forgot my right side was disabled.”

One of the advantages of the technology is that it can be set up to meet a particular patient’s needs. For example, in Friederichs’ case, the soccer balls could be directed to his right, requiring him to use the weaker side of his body to deflect them.

“One of the benefits of IREX is that it encourages functional use of an affected limb,” said Matt White, OTR/L, an occupational therapist who uses IREX with many patients. “In many cases, patients respond better to therapy that is purposeful in nature and is also creative and challenging.”

Friederichs feels that IREX, along with his other exercises and therapy routine, is helping him continue to improve. Both he and his wife are encouraged by the progress he has made on his violin. “I think the first time he drew the bow across the strings, we both started to cry,” said Kate Friederichs.

“I’ve come a long way,” said Friederichs.

Goal tending a soccer match, shushing down a powder-covered hill or swimming with the sharks—the IREX adds fun to rehab!



Patients like Norman Friederichs, right, use the virtual reality system IREX to improve strength, endurance and balance.



Mary Beth Ferguson, M.A. CCC

Clinician profile: Mary Beth Ferguson, speech-language pathologist

Mary Beth Ferguson is a speech-language pathologist at Sister Kenny Rehabilitation Institute at United Hospital in St. Paul. With more than 37 years experience, she currently works with adults and adolescents who have a wide variety of communication and swallowing disorders. She has developed a specialty in paradoxical vocal fold movement, a voice disorder in which the vocal folds close when they should open. Ferguson's other specialties include working with adults who had their larynx removed, patients who needed communication compensations after a tracheotomy

or who are on a ventilator, and those with communication issues related to traumatic brain injury. In the past, Ferguson has also worked extensively with pediatric patients with speech, language and swallowing disorders.

"Over the years, I have worked closely with the speech-language pathologists throughout our Twin City community," said Ferguson. "What I enjoy most about being a part of the Sister Kenny staff is the excitement of working together to maximize our efforts and achieve our patient's best abilities."

Sister Kenny Sports
& Physical Therapy
Center will soon open
two new clinics

New PT clinics to open in 2005

Forest Lake — scheduled to open in spring. The clinic will be located on Broadway Avenue, near Highway 35.

Shoreview — scheduled to open in March. The clinic will be adjacent to the Allina Medical

Clinic-Shoreview on North Lexington Avenue, just north of Highway 694.

Look for more information in the next issue of Kenny Independent or visit www.sisterkennyinstitute.com.

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