Insights

St. Mary's Hospital Quarterly Magazine

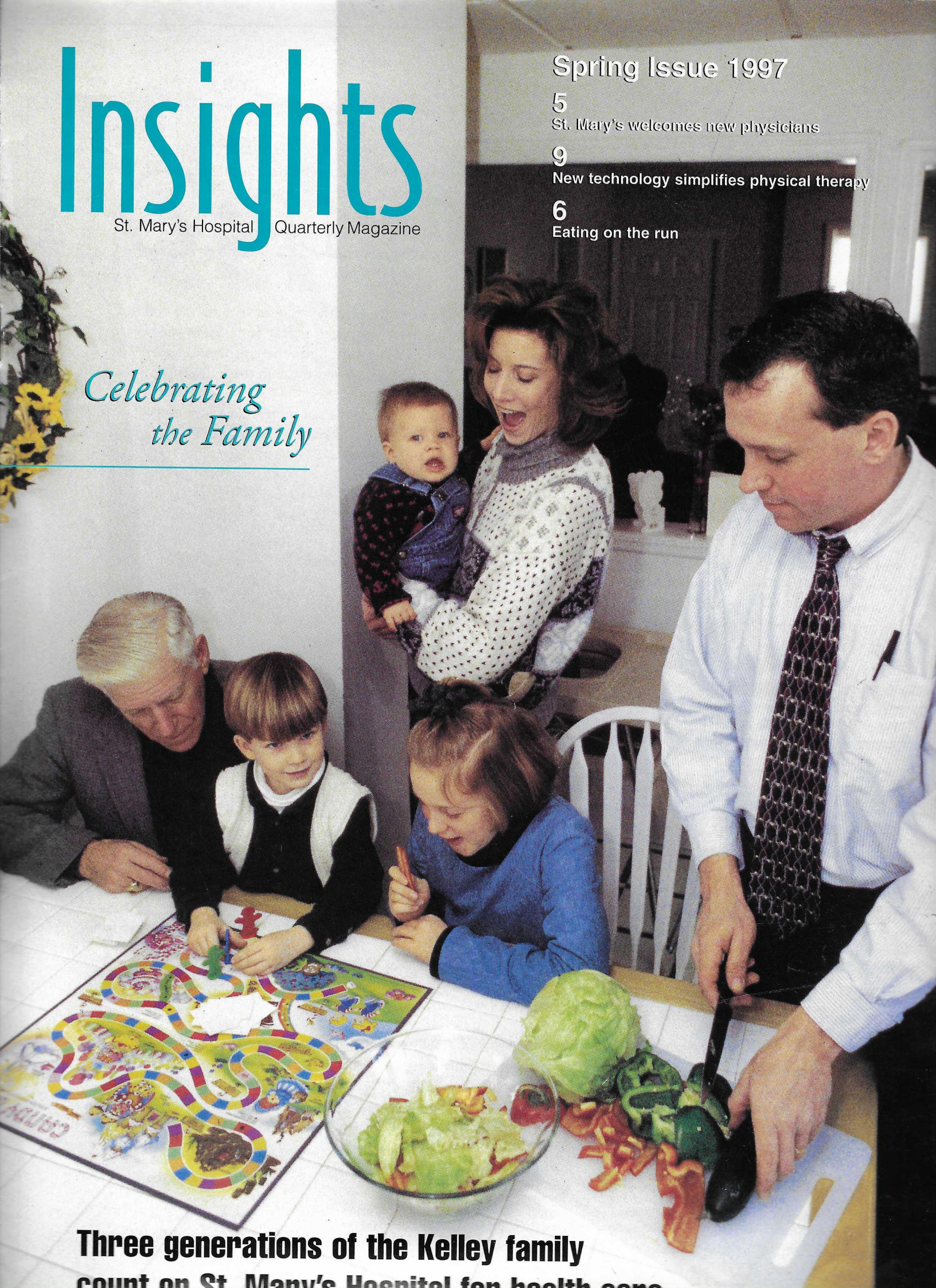
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Celebrating the Family



Three generations of the Kelley family count on St. Mary's Hospital for health care

BY SALLIANNE NORELLI

Isokinetics, Anyone?

"Before installing our CYBEX machine, patients used the 'Orthotron' for exercise," explains John Burlenski, PT, MS, clinical coordinator of physical medicine at St. Mary's Hospital. "That worked well for the major joints in the body, but it was limited. We were not able to test their physical abilities. Now, we are able to both test and rehabilitate every major joint in the body."

Sandwiched between the Emergency Room and the MRI department you'll find him, along with Marty Lock, physical therapist, hard at work in the gym at the Physical Medicine department. The room is well stocked with a wide range of exercise and rehabilitation equipment. Thanks to the recently acquired CYBEX Testing and Rehabilitation System, their work is now a bit more precise and, thus, more successful.

CYBEX "isokinetic" testing is used to identify and quantify musculoskeletal deficits. Isokinetics is a process in which a body part accelerates to achieve a pre-selected fixed speed against a set resistance. It provides an objective measurement of strength which is very useful when dealing with worker's compensation and auto accident cases. The results are reproducible and can be retested periodically to measure a patient's progress.

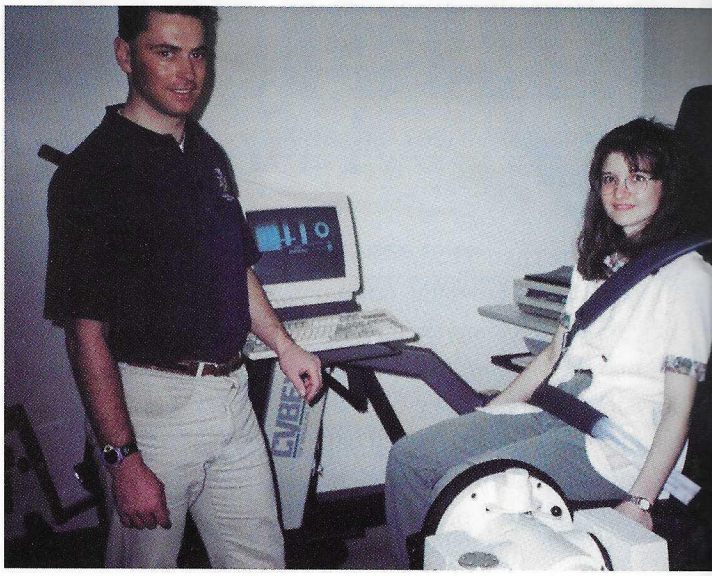


Michael Asaro

The CYBEX machine is safe to use for a wide range of injuries. Because it is set up to provide a maximum weight load through a whole range of motion, it stops when the patient feels pain. The risk of overloading a tested joint is greatly minimized. This machine offers maximum efficiency for muscular strength, power and endurance development and is completely safe to use.

"The main advantage of having an isokinetic machine is that you can maximize load of muscle through the whole range," Mr. Lock, who holds Bachelor of Physical Therapy and Bachelor of Science degrees from New Zealand University, explains while setting up the machine for a test run. This machine with a very technical sounding name is actually quite "user friendly," looking more like an airline seat than a rehabilitation machine.

The patient is seat-belted into the cushioned chair and the physical therapist enters personal data, such as height and weight,, into the computer suspended on a swing arm off to the left. These data only need to be entered once and then are stored in the computer for later sessions. The machine provides anatomically correct positioning and positive stabilization for testing of the muscles surrounding the shoulder, elbow, forearm, wrist, ankle, knee, hip and back.



Isabelle Thibault, a physical therapist assistant, helps demonstrate how CYBEX works with Marty Lock.

The high resolution, full-color graphics on the display monitor provide the patient with visible feedback. Once the patient has completed all the tests, the information can instantly be printed out of the computer and faxed or mailed to doctors the same day.

"Ninety-five percent of the people who are referred to Physical Therapy are in pain. Once the acute phase of pain has subsided, we get them to the subacute phase and then start them on an exercise program," Mr. Lock explains. "We can then see if the patient has a weakness deficit to any part of the body." The most common injured body part evaluated and treated on the CYBEX is the knee.

The machine can be used by anyone from the athlete who wants to strengthen or build a particular muscle group to the geriatric patient recovering from a fall. It can be used for both testing and therapy. It is also used in many orthopedic doctors' offices and university campus training rooms.

Isokinetics definitely shortens rehabilitation time. Muscles begin to respond to treatment within about three weeks, although treatment times are as individual as each patient. Rehabilitation is complete when the physical therapist deems both the uninjured side and the injured side relatively equal in strength. "We can now objectively follow and monitor a patient's improvement, which is good for both the physician and the insurance companies," explains Mr. Burlenski.

Even modern technology cannot replace the healing hands of well trained therapists. It is still the responsibility of the physical therapist to supervise a course of treatment and evaluate a specific patient's progress. But with the CYBEX machine to assist them, the Physical Medicine team can further ensure they are providing St. Mary's Physical Therapy patients with state-of-the-art treatment.