

Check out
the Trilogy
Video Library at
www.mercycare.org/cancer.



WITH PINPOINT ACCURACY Fighting cancer

Mercy is helping patients fight cancer by combining two new state-of-the-art technologies—the fixed Positron Emission Tomography/Computed Tomography (PET/CT) scanner and Varian Trilogy linear accelerator.

The PET/CT scanner improves patient care with rapid scan times and high-quality images. The superior images produced by the PET/CT increases diagnostic capabilities and improved patient care by potentially reducing the number of invasive procedures required during follow-up care, including biopsies and even unnecessary surgeries.

PET/CT is a minimally-invasive nuclear medicine procedure that uses a radioactive material injected into the bloodstream. This radioactive material accumulates in the organ or body area being examined and gives off energy in the form of two positrons. The PET portion of the scanner detects this energy and, with the help of a computer, creates pictures offering details on both the structure and function of organs and tissues. The CT portion of the scanner shows the anatomy—more of a “landscape” or location of organs, bones, etc.

Combining the two images from CT and PET shows the precise location of the tumor. The PET/CT scanner takes image “slices” (imagine slicing similar to that of a loaf of bread) and these images provide the different planes from which images are viewed and used for cancer treatment planning. A PET/CT scanner also is used by cardiologists to detect certain types of heart disease and by neurologists for assessing disorders, such as Alzheimer’s disease.

The Trilogy accelerator provides the latest advancement in image-guided radiation therapy. It delivers beams with accuracy to within 1/20 of an inch, allowing higher doses for improved outcomes.

With the PET/CT images, planning fields can be precisely targeted, allowing the linear accelerator to deliver radiation beams to the tumor and avoid radiating normal, adjacent structures. A 3D view allows the rotating arm of the linear accelerator to attack the tumor from various angles, ensuring personalized cancer treatment that delivers the right dose to the right place at the right time.

Mercy recently has installed a large bore CT scanner to help accommodate different sizes of treatment planning fields and larger patients. Mercy soon will offer respiratory gating, which will be installed on the large bore CT scanner. This respiratory gating, in conjunction with the Trilogy, will help deliver the radiation dose precisely when the patient is in inspiration or expiration. This technology allows the radiation oncologist to target the tumor, which moves in and out of range as the patient breathes, and avoid the surrounding healthy tissue.

staying fit is a juggling act

Local juggler Doug Sayers’ video clip was the winning entry for Mercy Medical Center’s You Move it, You Tube It Contest, featured in the last issue of *Mercy Touch* magazine.

At the end of the contest on March 31, Doug’s video had received 1,045 views.

You can see Doug’s amazing skills at Mercy’s You Tube channel—www.youtube.com/mercymedicalcenter. The video was taken at the Noelridge Park Pavilion in Cedar Rapids.

He says, “Most of the juggling I do is physically demanding, but this six ball sequence was really tough to get. It tested my mind, physical abilities and spirit. But I pulled through and got the sequence.”

In 2005, Doug competed for the first time at the World Juggling Federation in Las Vegas, where he won the Gold medal in the Intermediate Ball category. After graduating from high school in 2007, Doug traveled to Athens, Greece, to attend his first European Juggling Convention. Later in 2007, he and a juggling partner, Bruce Bailey, broke a juggling world record for the most number of balls passed, juggling 14 balls for 57 catches.

Working with a juggling coach at a circus school, Doug submitted a stage act to the International Jugglers Association in hopes of competing in the annual World Championships. He not only earned a spot in the competition’s finals, he bested them all to win Gold at the 2009 competition in Winston-Salem, NC.

You can learn more about Doug by visiting his website at whatsupjuggling.com.



Share your own video showing us how you stay healthy at www.youtube.com/mercymedicalcenter. Our favorites will receive a Mercy sport bag filled with ways to keep you healthy this summer.

