

Children's Health



Movement Analysis: A Step In The Right Direction

(NAPSA)—Technology that's used to make animated films in Hollywood's dream factory is helping dreams come true for injured children and teens in several well-known hospitals.

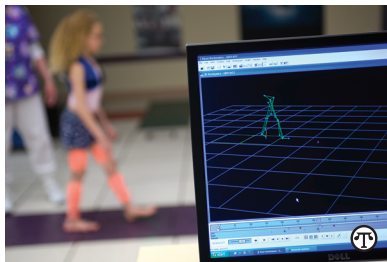
Motion capture technology has been used in an innovative way to bring digital characters to life in films such as "The Lord of the Rings" and "The Polar Express."

The technology is also used in movement analysis laboratories at Shriners Hospitals for Children to evaluate how children walk and determine the best care options.

How It Works

The purpose of the movement analysis laboratories, currently available at 12 of the Shriners Hospitals for Children that provide orthopaedic care, is to better observe and measure the ways patients with mobility impairments move, to understand how and why they move differently from children without mobility problems, to recommend care, and to evaluate the effectiveness of that care.

In the movement analysis laboratory, special high-speed cameras track the movement of reflective balls placed on the patient's feet, legs, arms and torso. Other sensors on their skin tell which muscles are working. Force plates in the walkway measure how the patient is pushing on the ground. A pressure platform might also be used to tell how the ground force is spread over the bottoms of the patient's feet and how the patient's feet support the body.



Hollywood comes to the hospital —A process that's used to make blockbuster animated films is also helping medical professionals understand how children with mobility impairments walk.

All these pieces of data about the patient's walking and other movement patterns are combined with information gathered during a detailed interview with the family and in a careful physical examination of the patient. An experienced, multidisciplinary team typically comprised of physicians, engineers, physical therapists and kinesiologists meets with the patient's physician to review this information and recommend treatments, which might include bracing, physical therapy, medications or surgery.

Family-Centered Care

Shriners Hospitals for Children is a health care system of 22 locations dedicated to improving the lives of children by providing pediatric specialty care, conducting innovative research and offering outstanding teaching programs. To learn more, visit www.shriners-hospitalsforchildren.org.