

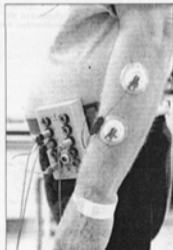


A patient wears a step-width monitor to keep proper space between the legs. Stroke victims have a poor base of support because they keep their legs too close together.



Dr. Alex Aruin (right), executive director of the Motion Analysis Laboratory in Wheaton, tests Mac McInerney, as cameras and electrodes record motion at the facility on the campus of Marianjoy Hospital and Rehabilitation Center.

Tribune photos by Ed Wagner



Hardware attached to the body helps record and monitor a patient's posture at the Motion Analysis Laboratory, where normal and abnormal movement of humans is studied.

# Doctors muscle in on disabilities

By Barbara Sherlock  
TRIBUNE STAFF WRITER

Dr. Alexander Aruin stood on a small platform. He grasped and then dropped a small weighted bag.

"We want to simulate a challenging situation to see how a patient's central nervous system reacts," Aruin said of the experiment, which involves electrodes attached to muscle points. "If they're neurologically diseased patients, they may not react properly, they may lose their balance, they may fall."

Then balancing on a tilt board, a seesaw-like device, Aruin continued.

"If I balance like this, it's telling me that I need to adjust," he said. "If my cen-

## Wheaton Motion Analysis Lab is helping uncover treatments

tral nervous system is healthy, it may do it, but if it isn't and I can't adjust, I may fall."

Aruin is executive director of the Motion Analysis Laboratory, a research facility that opened in March on the campus of Marianjoy Hospital and Rehabilitation Center in Wheaton. Such labs exist at major universities, but it is rare for one to exist at a non-academically affiliated hospital.

The lab is devoted to movement, especially the movement of people, and the research conducted

there is intended to ease the burden of those who cannot move.

It is a collaboration between the Rehabilitation Foundation Inc. and RehabLink.

The Rehabilitation Foundation Inc. is a not-for-profit foundation established by Marianjoy Hospital to conduct medical rehabilitation research and educational programs.

RehabLink is a recently formed umbrella network consisting of the sub-acute care, day and outpatient services provided at Mid-

west sites as well as the inpatient services provided at Marianjoy.

Aruin is an internationally recognized biomechanist and the foundation's senior research scientist. In the 1970s and '80s, before coming in 1992 to the United States from Russia, he was employed at the Moscow Institute of Electrical Engineering. He was assistant professor of its sport science department and as professor and director of its occupational biomechanics laboratory.

Before joining the foundation last year, Aruin was an assistant professor at Rush-Presbyterian-St. Luke's Medical College and later a senior scientist at Pennsylv-