



Does The TOG GaitScan Facilitate Optimal Orthotic Therapy?

VOLUME: 21 PUBLICATION DATE: Apr 01 2008

Issue Number: 4

Author(s): Robi Garthwait, Contributing Editor

For even the most experienced practitioners, it can be difficult to find the best orthotic solution to help address abnormal foot function. A gait analysis system is often necessary to accurately assess an individual's need for orthotic therapy.

The TOG GaitScan™ enables physicians to record timing sequences during gait as a patient walks or runs across a pressure plate. The product utilizes 4,096 sensors and scans at a rate of 300Hz (scans per second) to produce over 1 million data points to aid in foot analysis, according to The Orthotic Group, the manufacturer of the TOG GaitScan.

"The diagnostic information the system supplies, from a very quick and efficient testing procedure, has revolutionized how I treat patients with orthotics," says Alan Lustig, DPM, who has been in private practice in Toronto for over 30 years. "I have used computer gait analysis for the last 11 years. The advantage of examining gait dynamically versus static is huge."

David Pizzano, DPM, who practices in New Jersey and has used GaitScan for over two years, stresses the benefits of the GaitScan technology over simple observation as a diagnostic tool. "By observing someone walking, it is very difficult to discern gait problems because most problems are very subtle," he says. "The GaitScan slows down the gait cycle and allows me to break down every phase for observation." This includes quantifying any biomechanical imbalances, according to Dr. Pizzano.

"We can clearly see the whole story now," states Dr. Lustig. "After making static measurements and molds for many years, I can now see that patients with the same static measurements all walk differently." Attributing 100 percent of gait problems to subtalar joint angular abnormalities "now seems ridiculous," he adds.

When Pictures Say It All

One apparent benefit of the GaitScan technology is its ability to produce 2D and 3D visual images of pressure points across the foot. Patients can view these images as the graphics help them to make more informed decisions regarding their own treatment.

"The graphical information is much appreciated by the patients and helps them understand why orthotics are important to treat their problem," says Dr. Pizzano. "I frequently bring the TOG GaitScan to health fairs and schools to perform screenings. The patient response is overwhelming."

Dr. Lustig agrees. "Patients can see their feet function next to a normal example. This is the number one thing that convinces them whether they need orthotics or not. The power of the computer trumps even my opinion."

Other Pertinent Considerations

While Dr. Lustig cautions that "no device is 100 percent," he says roughly 95 percent of his patients can walk across the GaitScan plate and get a representative test result. However, clinicians must be willing to take the time to learn and understand the system. Portability is another issue. Although the GaitScan is smaller than some of its competitors, "one can argue that transporting the equipment to different office locations can be cumbersome," says Dr. Pizzano. However, for doctors looking for a fast and efficient gait exam that is also cost-effective, the GaitScan is a good choice, according to Dr. Lustig. "In this day and age, any doctor who dispenses orthotics should have a computer gait scan analysis system," he says. "I believe at this time that the GaitScan is the best for a private practice. It is the most doctor- and patient-friendly system. It gives foot specialists the information they need — no more, no less."

Ms. Garthwait is a freelance writer who lives in Downingtown, Pa.