

New Gait Analysis System Available Soon

A high-speed video system could improve hoof balance and comfort.

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This May, clinical application is scheduled to start at the Marion duPont Scott Equine Medical Center in Leesburg, Va. on a new gait analysis system. The system, which began testing in October at the center, is a high-speed digital video that will allow for detailed gait analysis, lameness diagnosis and hoof balancing in horses.

Unlike most video cameras, which can only capture horses in motion at 30 frames per second, this new technology can film at 60 frames per second in high definition, permitting the center's specialists to clearly view foot landing, break over and arc of the foot, and limb flight. Using an equine treadmill that offers graded exercise in a controlled environment, a horse's gait can be captured at both varying and consistent speeds. The footage can then be frozen in still frames or played in slow motion, allowing for precision viewing of movements.

According to Dr. Curry Keoughan, clinical assistant professor in equine lameness and surgery, using video technology rather than analog film may also result in enhanced performance through more accurate therapeutic shoeing.

"Previous gait analysis systems were based on computer images that were sometimes misleading," Keoughan says. "This system will enable us to optimize hoof balance and comfort leading to heightened performance and success."

Keoughan notes that this new technology will be of particular benefit for athletic horses.

"To improve productivity even a half of a percent in a racehorse is very significant," Keoughan says.

Horses from the Loudoun Therapeutic Riding Foundation in Leesburg, Va., participated in the testing for the new gait analysis system.