Benefits of Equine Therapy Proven By Washington University Research Team
Hippotherapy is 'Therapy Disguised as Fun' for Children with Cerebral Palsy

June 2008, Chagrin Falls, OH — Researchers from the Washington University Program in Occupational Therapy, funded by a grant from the Horses & Humans Research Foundation, recently completed a breakthrough study on the therapeutic impact of equine therapy for children with cerebral palsy.

The study found that hippotherapy, the use of the rhythmic movement of a horse to effect therapeutic gains, improves both head and trunk stability and upper extremity function in children with spastic diplegia cerebral palsy.

"Beliefs about the positive effects of hippotherapy are strongly held, but not yet fully supported by objective evidence," reports Tim Shurtleff, occupational therapist and lead researcher. "We have shown that hippotherapy is a therapeutic tool that makes a measurable and visible difference in basic skills that form the foundation of most functional activities of everyday life."

The year-long study primarily involved measuring stability changes in children with cerebral palsy after 12 weeks of hippotherapy treatments. The team used a motorized barrel and Video Motion Capture to challenge and measure the changes in motor control that might have been learned on a horse.

Molly Sweeney, President of the Horses & Humans Research Foundation, was most impressed that children actually sustained the benefits of hippotherapy for several months after their riding sessions stopped. "The subjects were incorporating improvements from hippotherapy into their daily life," says Sweeney. "They actually maintained a continuum of measurable improvement—better head and trunk stability and improved control of their arms as they reach—even months after their hippotherapy sessions ended. That was a really exciting revelation for us!"

Shurtleff, on the other hand, was most surprised at the magnitude of the "effect sizes", a statistic that compares results of interventions across different types of experiments. "It is often difficult to say that statistical significance is equal to clinical significance. With effect sizes this large, the changes are visible to casual observation and likely indicative of clinical change."
“These findings will go a long way in getting hippotherapy the recognition it deserves,” says KC Henry, Executive Director of the Horses & Humans Research Foundation. “The Washington University project is our first funded project, and has set an impressive standard, with their rigorously developed research design leading to impactful objective results. We were thrilled to have solid evidence substantiating what so many therapists already believed.”

The research team plans to follow up this study by conducting a randomized clinical trial (RCT) of hippotherapy. “A RCT is the gold standard for evidence of medical treatment efficacy. If we can pull of a successful RCT, the efficacy of hippotherapy will no longer be in question,” says Shurtleff.

The changes observed by the Washington University team were confirmed by anecdotal evidence from families of subjects. “One mother told me that her five year old son no longer hangs out at the edge of the playground watching when the other kids are climbing the slide and playing on the equipment,” says Shurtleff. “He was always too unstable and afraid of falling…after his 12 week hippotherapy intervention he now climbs up the slide and plays more on the equipment than before. Without any urging from anyone, he just started doing it.”

“If this and other studies can produce the evidence to convince more insurance companies that kids with this disability can benefit from using horses as a therapy tool, more kids will be able to gain from it and become more functional as they mature into adults,” concludes Shurtleff. “This is a therapy tool that makes a difference. While it is fun, it is not recreation. It is therapy disguised as fun.”

Horses & Humans Research Foundation is the only foundation dedicated solely to facilitating universal understanding and appreciation of the significant influence of horses on humans. The foundation promotes research that will directly benefit program participants and educate the public, including parents, donors, insurance companies, the medical community, etc., regarding the benefits of equine assisted activities. For more information visit www.horsesandhumans.org, or contact KC Henry, Executive Director, at (440) 543.8306 or info@horsesandhumans.org.

# # #