

STILLWATER, Okla.—The horses at the Oklahoma State University Center for Veterinary Health Sciences work hard at staying fit. According to Dr. Sabrina Cummings (class of 2008), the horses participating in a research study to determine the effects on airway passages of exercising in cold temperatures work out on a treadmill.

An EquiGym treadmill is located in the Comparative Exercise Physiology Laboratory, directed by Dr. Michael Davis, professor of Physiological Sciences. This high-speed treadmill is used for research and clinical purposes.

“With the assistance of animal sciences undergraduate students, we put the horses through their paces, so to speak,” explains Cummings. “Each horse will walk for 5 minutes, trot for 5 minutes then canter for 5 minutes. This is followed by a 5-minute walk and then another 5-minute canter.”

Cummings continues saying that the workout routine keeps the horses fit. On challenge days, it’s a little more complicated.

“On challenge days, the horses are hooked to an air chiller that will supply them with air as they exercise,” says Cummings. “The air temperature will vary from warm to cold to determine if cold air causes inflammation in airway passages.”

She explains that the air would not be as cold as a human would experience exercising outdoors in cold temperatures, for example cross country skiing, but it will be cold enough to determine if it causes inflammation. The horses serve as a human model in this study.

“We are more interested in the after effects rather than seeing if the horses perform better or worse under different air temperatures,” she adds.

There are eight horses participating in the study at this time. Each horse has to be trained to run on the treadmill starting with a walk and gradually building to a full canter. One horse in particular, excels on the treadmill.

“Deodar is a 14 year old Thoroughbred and he loves running on the treadmill,” smiles Cummings. “He is a retired race horse that served as a stud horse until last year at OSU’s Veterinary Medicine Ranch located west of Stillwater. This is his first year in the program and he is doing very well.”

[[Click here to view a video of Deodar on the treadmill](#)]

Approximately two weeks remain until this phase of the study is complete. At that point, the horses, having been in training for 4 months, will be turned out for a month to rest and relax before starting another study.

The Oklahoma State University Center for Veterinary Health Sciences is one of 28 veterinary colleges in the United States and is fully accredited by the Council on Education of the American Veterinary Medical Association. For more information, visit www.cvhs.okstate.edu or call (405) 744-7000.

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