

# Hearing-Impairment typically not a big problem in Horses

*For The Love Of Horses*  
By Frank J. Buchman

Deafness, or hearing impairment, does not make a horse worthless or unusable.

"With a few minor adjustments in training and management techniques by owners, deaf horses are generally suitable for riding, showing and breeding, just like any other horses," according to Dr. Laurie Beard, associate professor of equine medicine at the Kansas State University of College of Veterinary Medicine.

However, she confessed that determining if a horse is deaf is not always easy. "The most accurate method of determining a horse's hearing ability is with a brainstem auditory evoke response test, which is also used in humans," Beard related.

The test detects electrical activity in the inner ear and auditory pathways in the brain in much the same way

radio or TV signals. Beard said, "This is relatively simple and offered in many university veterinary hospitals."

Hearing impairment in horses can result from a number of causes. "One of the common forms in horses today is coat-color-associated deafness in Paint Horses with a high percentage of white," Beard described. "These horses are born deaf."

This is a similar syndrome which causes deafness in blue-eyed cats and Dalmatian dogs.

Dr. Gary Magdesian, professor of equine medicine at the University of California School of Veterinary Medicine Hospital in Davis, noted other possible causes of deafness, that include inner or middle ear infections, an arthritic change in the skull, old age, trauma and certain drugs.

Often owners don't have any clue that their horses are deaf, until a certain situation occurs. When there is a

other horses run, while one stands calmly without even turning its head, an owner might become suspicious of hearing impairment.

"There are simple tests to help owners get a presumptive diagnosis of a horse's deafness by observing how they respond to auditory stimuli outside of their visual field," Magdesian recommended.

For example, an owner can stand just out of view of the horse's sight and shake a can of grain. A deaf horse will not show any excitement in response to the sound.

Dr. Arvle E. Marshall, former associate professor in equine medicine at Auburn University, Auburn, Ala., added, "A twitch of the ears or turning of the head in response to a sudden noise, such as clapping of the hands, is called the startle reaction and rules out complete deafness.

"Deaf horses may spook easily, as they are reliant on visual

Marshall continued. "Similar to deaf people, animals with hearing impairment rarely have any mental deficits, and horses with proper handling can have productive lives."

In qualifying remarks by other veterinarians, Magdesian verified, "The biggest repercussions of owning a deaf horse involve modifying training techniques. Because these horses cannot rely on voice cues, they must be trained using visual cues on the ground and tactile cues under saddle."

The veterinarians also warned handlers to be particularly aware so that the hearing-impaired horse is not startled by the unseen and unexpected approach of people or other animals.

With visual and tactile cues, deaf horses do very well, Magdesian emphasized. "I have owned a deaf mare for 25 years, and most people never notice that she cannot hear," he claimed. "I have ridden

pre-purchase examinations and by judges at breed shows," Marshall pointed out.

No cure or treatment for deafness in horses was suggested by the veterinarians. "I don't know of any hearing aids that have yet been designed for use in horses," Beard clarified.

Detailing the discussion on genetic deafness in Paint Horses, Dr. Allison Stewart, who has also studied the subject as an equine veterinarian at Auburn University, accentuated that it's more than speculation that splashed white Paint Horses, or any horse with blue eyes and excessive white markings over its face, can be deaf.

"Very little scientific research on the subject has been done," she commented. "Still, we know that the deafness is caused by a lack of pigment in part of the inner ear.

"Mating two affected horses is not going to necessarily produce an affected offspring

her on trails, in the arena and have shown her without incident.

"I also know of deaf horses that are successful cutting horses and all-around Western and English show horses. One advantage of owning a deaf horse is that it will never spook in response to loud noises," Magdesian remarked.

However, deafness is a defect, and consideration should be given to decreasing the prevalence of deafness in Paint Horses by selective breeding, declared Marshall, now in private practice at The Animal Health Center in Opelika, Ala.

"An attempt to assess hearing ability should also be made by veterinarians performing

Stewart evaluated.

Although extensive research has been done on coat color genetics in Paint Horses, mention of deafness is secondary.

The American Paint Horse Association's Guide to Coat Color Genetics refers to deafness in a section on the splashed white pattern.

"Some people have observed that many splashed white horses are deaf," the booklet acknowledges. "This is not much of a problem if the trainer realizes the limitations of the horse in question and modifies the training program to meet the horses' specific needs. Many of these horses go on to lead normal and productive lives."