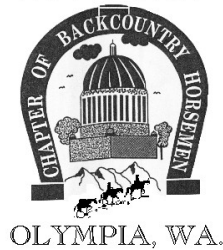


# CAPITOL RIDERS



## Hoofbeats - November 2009

Minutes  
Capitol Riders Meeting  
November 10, 2009

President Ed Haefliger called the meeting to order at 7:00 PM.

### Minutes

The minutes of the October meeting were approved as printed in the Hoofbeats newsletter.

### Treasurer's Report

Treasurer, Lee Munroe, gave the treasurer's report and again asked for any outstanding expenditures for 2009 be turned in for reimbursement. A motion was made to allow expenses of approximately \$120 for the December Directors' meeting. The motion passed.

### Director's Report

Since there were several guests at the meeting, Jeff asked that each person present introduce himself and state if they were members of Capitol Riders. He then announced that there would be a Capitol Forest Users Group party on December 5. This year's party will be held at the Littlerock Gun Club which charges a fee of \$250 for rental of the facility. Jeff volunteered to pay the fee and will be asking for other chapters and users groups to reimburse him. He is also asking for volunteers of several BCHW chapters as well as other user groups to help set up. Please contact Jeff if you are able to help set up and/or clean up.

### Committee Reports

#### Trail Rides/ Social Events

1. The chapter party scheduled for Oct. 31 was cancelled due to illness. There will not be a makeup party, however the door prizes will be given out at the Christmas breakfast.
2. The dental clinic will be held at the Trails on Sunday, Nov. 15.
3. Capitol Forest Users Group meeting Nov. 19
4. Capitol Forest Users Group potluck and party Dec. 5 at 5:30 PM
5. The Capitol Riders Christmas breakfast will be held at 9:00AM on December 12 at the Little Creek Casino located at the intersection of Highways 101/108. The casino charges an 18% gratuity for large groups so a motion was made that the Capitol Riders' chapter pay the gratuity. The motion carried. End of the year presentations and awards will be given.

The Grays Harbor chapter BCHW Christmas party will be held on

Sunday, December 13 at the Westport Winery. It will be a prime rib dinner with social hour 1-2:00 followed by dinner around 3:00 PM. Capitol Riders chapter has been invited.

#### Trail Maintenance

DNR will install a new bridge over Waddell Creek out of Margaret McKinney campground soon. It will replace the former bridge that was washed out by winter storms in 2008.

#### Newsletter/Web Site

No updates.

#### E-mail Distribution

Ritz Duchesne announced that she would no longer be available to distribute e-mail after 12/31/09. A new person will need to volunteer for sorting and distributing e-mail for 2010.

#### OLD BUSINESS

Nominations for 2010 Capitol Riders' Offices were opened. There were no new nominations. The election was held and the following officers were elected to serve for 2010:

President: Steve Russell  
Vice President: Dean Hartman  
Secretary: Chris Enrico  
Treasurer: Traci Koch

Jeff LaBreck volunteered again to serve as Capitol Riders' Director for 2010.

A huge THANK YOU TO ALL THE PEOPLE WHO AGREED TO SERVE AS OFFICERS FOR 2010!

#### NEW BUSINESS

The new officers will hold a meeting in December to schedule trail rides, social events, and the possibility of changing the meeting to another night.

#### For the Good of the Order

Traci Koch announced that BCHW chapter treasurers will be meeting at the same time and place as the BCHW Directors on December 5. It will be an educational and training meeting for the treasurers. Traci plans to attend. In the future, other officers' meetings may be held in conjunction with the Directors' meetings.

The meeting was adjourned at 7:50 PM.

#### NEXT MEETING

The next meeting will be held on January 12 unless there is a change of meeting dates for 2010.

Respectfully submitted,  
Karen Johnson, Secretary

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#### Glaucoma Discussed at Equine Ophthalmology Meeting

by: Kristen Slater, DVM  
November 13 2009

Glaucoma, a group of diseases resulting from alterations in the formation and drainage of aqueous humor (clear eye fluid), which causes an increase in intraocular pressure above what's compatible with normal function of the retina and optic nerve, was another topic covered by Dennis Brooks, DVM, PhD, Dipl. ACVO, professor of Ophthalmology at University of Florida College of Veterinary Medicine, at the recent AAEP Focus on Ophthalmology meeting.

Brooks told veterinarians who are seeing a lot of uveitis in their equine practice that they are also likely seeing horses with glaucoma. The condition is often noticed by the owner as corneal edema, which appears as a bluish tinting to the cornea, along with dilation of the affected eye. Unlike in humans and small animals, glaucoma in horses does not seem to cause pain, but blindness stemming from atrophy (partial or complete wasting away) of the optic nerve can often develop as a secondary consequence of glaucoma.

Glaucoma in the horse is frequently classified as either primary, secondary, or congenital:

\* In primary glaucoma both eyes are usually affected and intraocular pressures are elevated with no obvious ocular abnormality to account for increased pressures. The condition might be heritable.

\* Secondary glaucoma typically occurs due to an identifiable reason, such as lens luxation (movement away from normal position), neoplasia within eye, iridocyclitis (inflammation of the anterior chamber of eye in front of lens and behind cornea), and/or chronic uveitis.

\* Congenital glaucoma is a condition the animal is born with; it is caused by developmental abnormalities.

Glaucoma in the horse is often difficult to distinguish early in the course of the condition due to the mildness of the clinical signs presented. The discomfort often obvious in small animals and humans with glaucoma is not apparent in the horse.

Keeping intraocular pressure at a level that is compatible with maintaining retinal and optic nerve health is often the goal of treatment.

The pupils of a horse with glaucoma often present as fixed and dilated. The lenses of glaucomic horses might either subluxate or fully luxate. A veterinarian might also see retinal degeneration. Diagnostically, intraocular pressure (within the eye) greater than 30 could indicate a problem; however, positioning of the head during assessment can have a major impact on the pressure of the eye.

The goals of treating the animal with glaucoma are often focused on keeping intraocular pressure at a level that is compatible with maintaining retinal and optic nerve health.

Veterinarians often try to control the production of aqueous humor and increase the outflow of aqueous humor. A target intraocular pressure (IOP) for horses diagnosed with glaucoma is less than 20mmHg.

Surgical options, including laser surgery, implants, and removal of the ciliary body (the part of the eye responsible for production of aqueous humor), might be viable when medical therapy is not enough to control elevated IOP.

No matter the cause, glaucoma, although rare in the horse, should be evaluated by a veterinarian and treatment options discussed.

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## Genetic Diseases in Horses Reviewed for World Equine Vets

by: Stacey Oke, DVM, MSc

October 31 2009

While genetic diseases exist in a number of horse breeds, many researchers have focused expressly on issues occurring in the Quarter Horse breed. Thanks to their efforts, genetic tests for several disorders specific to this breed are now commercially available for breeders and horse owners.

"The size of the Quarter Horse industry, the commitment of the American Quarter Horse Association, and the development of the equine genome have all contributed to the identification of genetic diseases affecting Quarter Horses," said Stephanie Valberg, DVM, PhD, professor of large animal medicine and director of the University of Minnesota's Equine Center, who presented on the topic at the 11th Congress of the World Equine Veterinary Association in Guarujá, Sao Paulo, Brazil.

The most well-known genetic diseases affecting Quarter Horse and related bloodlines include the following:

Hyperkalemic Periodic Paralysis (HYPP) This genetic mutation affects 1.5% of the Quarter Horse breed and

almost 60% of halter horses that descend from Impressive, a prominent sire. Signs begin around 2-3 years of age and include intermittent muscle tremors and weakness. Severely affected horses can present with difficulty swallowing and respiratory distress. HYPP is caused by a dominant mutation that results in a single amino acid change in a sodium channel in skeletal muscle. Testing is available at the University of California, Davis.

**Glycogen Branching Enzyme Deficiency (GBED)** This is a mutation approximately 8% of Quarter Horses carry, particularly Western pleasure horses descended from Zantanon and King. Aa recessive mutation, causes GBED, and affected fetuses generally are aborted or stillborn. If they're born alive, foals are often weak, have contracted tendons, and typically die within 18 weeks. Genetic testing is available at the University of California, Davis, and VetGen.

**Polysaccharide Storage Myopathy (PSSM) Type 1 PSSM**, a form of exertional rhabdomyolysis (tying-up), affects about 10% of Quarter Horses. This dominant mutation results in enhanced function of a gene called glycogen synthase 1 (GYS1). Signs include firm, painful muscles, stiffness, weakness, gait abnormalities, and muscle wasting. PSSM is also present in at least 20 other breeds, including draft horses. Testing is available at the Neuromuscular Laboratory at the University of Minnesota.

**Malignant Hyperthermia (MH)** Affecting <1% of Quarter Horses, this dominant mutation results in a single amino acid mutation in the ryanodine receptor 1 (RYR1) gene. High fevers, metabolic failure, and death might occur while affected horses are under general anesthesia. Horses can also tie-up, which can be severe if the RYR1 mutation occurs in conjunction with the GYS1 mutation that's characteristic of PSSM. Testing is available at the Neuromuscular Laboratory at the University of Minnesota.

**Hereditary Equine Regional Dermal Asthenia (HERDA or HC)** This disorder is caused by a recessive mutation in a gene involved in processing collagen to anchor the skin to underlying tissues. About 4% of Quarter Horses are carriers (and 28% of cutting horses). Those with two copies of the mutated gene have skin that tears easily and heals with scars and white hairs after trauma. Testing is available at the University of California, Davis.

"Tests for genetic disease affecting other breeds are also available," noted Valberg. "These include tests for severe combined immunodeficiency (SCID) in Arabians and junctional epidermolysis bullosa in North American Belgians and Saddlebreds. These tests will assist owners when making breeding program decisions and during prepurchase examinations."

Valberg and colleagues also relayed that they anticipate a rapid expansion in the number of genetic tests available in the near future, thanks to the development of equine genetic tools that scan for genetic mutations.

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## Guttural Pouch Anatomy, Problems Reviewed for World Equine Vets

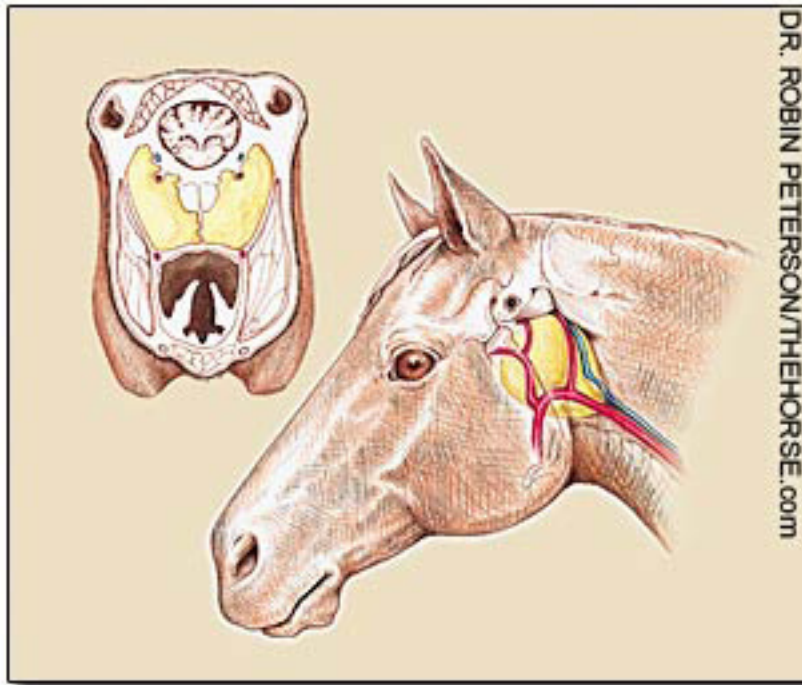
by: Stacey Oke, DVM, MSc

November 08 2009

Guttural pouches are more than just ill-defined air-filled vats located somewhere in the horse's head, said Julie Fjeldborg, DVM, PhD, an associate professor in the department of large animal sciences at the University of Copenhagen, Denmark, during the 11th Congress of the World Equine Veterinary Association, which was held Sept. 24-27, 2009, in Guarujá, Sao Paulo, Brazil.

Guttural pouches are of interest to both veterinarians and horse owners, as they contain a number of important structures. Arteries such as the internal carotid artery, and several cranial nerves, including the facial, glossopharyngeal, vagus, accessory, and hypoglossal nerves, also course through the guttural pouches.

The guttural pouches, unique to a limited number of mammals, such as the horse, rhinoceros, and the South



**Location and anatomy of the guttural pouches (shown here in yellow).** proximately 45 to 200 microns) that wraps around these delicate structures to separate potential pathogens or necrotic pus from major arteries and cranial nerves, it is clear that guttural pouch disease requires immediate treatment.

Some of the more common diseases of the equine guttural pouches include:

- \* Empyema (the collection of pus);
- \* Mycosis (fungal infection); and
- \* Otitis media or interna (inflammation of the middle or inner ear).

American forest mouse, are paired diverticulae of the Eustachian tubes that connect the middle ear to the pharynx (which extends from the rear of the mouth and nasal passages to the larynx and esophagus ). Each guttural pouch has a volume of approximately 300 mL to 500 mL. The exact function of the guttural pouches remains elusive, even though scientists discovered them more than 200 years ago. One theory is that the guttural pouches serve as "brain cooling devices."

"It is important to note that the guttural pouches are not sterile. They contain the same bacterial composition as the pharynx," explained Fjeldborg.

According to Fjeldborg, since there is only very thin membrane (ap-

proximately 45 to 200 microns) that wraps around these delicate structures to separate potential pathogens or necrotic pus from major arteries and cranial nerves, it is clear that guttural pouch disease requires immediate treatment.

When it comes to diagnosis of guttural pouch problems, the endoscope is the veterinarian's best friend. He or she can pass the scope via the nasal passages to access the guttural pouches where they communicate with the pharynx.

The veterinarian can also employ this tool when treating some guttural pouch diseases, conducting endoscope-guided flushes of the pouch(es) with a nonirritating solution for a minimum of seven days.

Fjeldborg noted other conditions of the guttural pouches might require more sophisticated treatment plans, including surgery or even embolization of the internal carotid artery to control bleeding in horses with mycotic infections. These cases require general anesthesia, fluoroscopy, and aggressive, long-term follow-up.



## Calendar of Events for 2009 -

- 11/15/2009 DATE CHANGE - Dental Clinic - Trails End, Tumwater 8 am to 5 pm - Contact Ritz  
11/19/2009 Capitol Forest Users Group meeting, 6 to 8 pm, 801 88th Ave SE, Tumwater (DNR)  
12/05/2009 Capitol Forest Users Group potluck and party 5:30 PM, Evergreen Gun Club  
12/12/2009 Christmas breakfast and awards presentation 9 am, Little Creek Casino, SR 101/108,  
Olympia  
12/13/2009 GH Chapter Christmas party - Westport Winery, 1 pm (JoAnn Yost, joanny540aol.com or  
360-482-3257)



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