



Above: Paso Fino Dentistry Aruba



Above: Paso Fino underbite



Above: V upper incisors due to underbite

**By Raymond Q. Hyde, D.V.M.**

My trip in November 2011 to the Mundial World Cup Paso Fino show in San Juan, Puerto Rico, impressed upon me the excitement and passion that this breed inspires in spectators, riders, and their trainers and owners. Pasos are truly unique – in their behavior, gaits, conformation, and even their teeth! I am an equine veterinary dental practitioner that is on a mission to spread the word that Paso Finos have special dental needs.

Let's face it, it is a tough job for the horse to make it to the championship level, and they need all the help they can get. This breed's demanding gaits require incredible concentration by the horse to maintain the steady, continuous, rapid movements. Only horses with good equilibrium (sense of balance) can perform the tight figure-8 phase of their test properly. A horse's balance center is found in their temporal bones of the upper part of their skull which contains the semicircular canals of the inner ears. Most people do not realize that there is another component to the balance system. The lower jaw, or mandible, also communicates through the temporomandibular joint (TMJ) to the balance center, and acts as a gyroscope to maintain the exquisite coordination required for optimum performance. Normally the position and movement of the mandible is affected by gravity and head carriage to relay messages to the brain to feedback "body-awareness" (proprioception) like a computer-controlled traction, suspension, and braking system in a very expensive Mercedes or BMW high-performance automobile.

This is where an expert equine dental practitioner can make a difference. Sure, removing the sharp points from the teeth and shaping nice bit seats by careful filing can make your Paso Fino more comfortable when eating and being ridden, but these high level athletes need more than that. They often require "equilibration" of their dental arcades to assure maximum "equilibrium." Equilibration of the teeth requires thorough knowledge of the physiology and anatomy of the dental structures and biomechanics of the horse's jaws and muscles. Properly trained equine dental technicians and veterinarians recognize the dental malocclusions that need to be

corrected to enhance performance by relieving TMJ stress and discomfort and freeing up natural movements of the mandible.

The dental structures are extremely important for the long-term health and performance of horses. Scrutiny of dental conformation is an important step for the breed as a whole to help eliminate defects from the gene pool that can lead to costly corrective orthodontic procedures or adverse effects to their health. Paso Finos carry some genes that cause under-bites to occur and cause the formation of large "ramps" or "hooks" on the lower first cheek teeth (#306/#406 teeth, see pictures). Under-bites can also lead to a dramatic V-shaped appearance of the upper incisors and excessive lengthening of the lower incisors due to improper alignment and lack of wear. When the incisors do not meet, horses can learn to graze with their lips, but the teeth will not wear properly and can eventually interfere with their chewing motion. Leveling and shortening the incisors may be helpful (see pictures).

Regular dental care can easily eliminate and prevent the ramp and hook formations which will interfere with your horse's performance. Orthodontic correction of an under-bite in a growing young horse may allow a horse to compete, but only selective breeding can help to reduce the occurrence of the under-bites.

Working on Paso Finos' teeth is often presented as being overly demanding (even harder than working on Arabians or Saddlebreds!), and many practitioners are reticent to work on them, but I find the rewards are bigger, too. Through my school, American School of Equine Dentistry ([www.amscheqdentistry.com](http://www.amscheqdentistry.com)), I have been able to educate dental practitioners, in English and Spanish languages, to begin to meet the needs of Paso Finos. Several of my former students and I can be found working in South, Central and North America and in the Caribbean Islands, too.

I fondly recall working on World Champion Classico's teeth and then receiving a private display of his extravagant strides. What a sight! Remember, Paso Finos are truly special horses.



Above: Paso Fino "ramps" before



Above: Paso Fino "ramps" after



Above: Prognathism