

# Dehydration



Dr. Bri Henderson, assistant team vet for Canada's endurance team at 2010 WEG says, "Hydration is everything. The correct balance of water and body salts controls everything from the brain to the gut. As dehydration develops we risk our horse's health and welfare by stressing their hearts, kidneys and gut function. From the polished show horse to the race horse to the beloved pasture horse, we must ensure access to clean drinking water and CORRECT replacement of electrolytes lost through sweating."

Two simple ways you can check your horse for proper hydration are the capillary refill test and the skin pinch test.

## Mucous Membranes/Capillary Refill

Lift the upper lip of the horse and look at the **gums** above the teeth (also called the **mucous membranes**).



Mucous membranes should be a healthy pink, shiny, moist and slippery. If they are pale, dry or tacky this can indicate dehydration. Colours such as pale white, jaundiced, brick red, bluish, purplish, or muddy are indicative of a serious problem.

Next, press your thumb or finger on the gum to "blanch" the area (push the blood out from under the finger) to determine **capillary refill** time. Upon release of the pressure, count the seconds that elapse while the colour

returns. Normal time is up to 1.5 seconds. Delays for 2 to 3 seconds are cause for concern. Delays beyond 4 seconds are serious. Delayed capillary refill time is an indication of reduced blood circulation due to reduced volume (blood loss or dehydration) and/or decreased blood pressure (shock).

## Skin Pinch

While dehydration leads to changes in a number of the areas examined, the most common means to quickly check hydration is the **skin pinch** test. As the animal becomes dehydrated, the skin elasticity decreases due to loss of water from the skin. When the skin on the point of the shoulder is pinched and pulled gently away, it should then snap back quickly upon release.



Take a fold of skin between the thumb and forefinger, lift it away from the underlying tissues, twist slightly and release. A skin fold or "tent" that remains for over two seconds indicates dehydration. A delay of 5 seconds is serious. It is important to know the normal skin pinch results on your horse as there can be a variation due to age and breed. For this reason it is important to test the same area of the skin each time to maintain consistency of results.

Information excerpted from [Equine Guelph's Horse Health Check](#).