

## TEAR STAINING in dogs

In a nutshell: It is due to a bacterial overgrowth in the tears, and increased tears not able to drain appropriately (out the nasolacrimal duct).

Tearstains are typically the result of porphyrins. Porphyrins are naturally occurring molecules containing iron (reddish color) – waste products from the breakdown of red blood cells -- and are mostly removed from the body in the usual way (in poop). However, in dogs, porphyrin can also be excreted through tears, saliva, and urine. If the stains are more of a brown color than rust colored, it's likely your dog has developed a yeast infection on the face because the fur under the eyes is constantly wet with tears. Brown stains from a yeast infection are different from red staining caused by porphyrins. Some dogs make more porphyrin than others (and therefore have more tear staining); we can assume genetics and innate bacterial levels are involved, because certain breeds and lineages can be more prone to staining.

### How to Treat Tearstains

- Keep the face meticulously clean and free of porphyrin-containing moisture. This means gently wiping the face at least twice a day with a soft, warm, damp cloth, and keep the face hair trimmed.
- Feed a high-quality, balanced diet.
- Provide your dog with fresh, filtered (distilled) drinking water instead of tap water, which is often high in mineral content or iron and other impurities.
- Replace plastic food and water bowls with stainless steel, porcelain, or glass. Worn plastic containers can harbor bacteria that may irritate your dog's face.
- Using a dab of coconut oil on the moist "tracks" of skin where tear stains accumulate can also prevent the skin from becoming irritated and inflamed.
- **In situations with dark tear staining already present** - a round of antibiotics may be warranted – WORK WITH YOUR VETERINARIAN. Antibiotics often used are Tylosin and Doxycycline. These antibiotics alter the flora (bacteria) of the tear film creating a less favorable environment for porphyrin-producing bacteria. It also helps to thin the tear secretions so that they'll drain properly down the lacrimal duct.
  - Tylosin dosage regimen - 1/16 teaspoon (or a pinch) every day for 1-2 weeks, then every 3 days for a week to 2 weeks, then once a week to total 4-6 weeks until tear stains are gone. Follow this regimen with probiotics.
- Use probiotics daily to every other day to keep the bacteria in check. Some favorite probiotics are: Provable, Fortiflora, and Lactoquil. There are others available as well.
- A final option that works along the same lines as probiotics is powdered buttermilk in the food; 1/8tsp dried buttermilk twice a day or 1/4tsp in the food once daily.