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## Nasolacrimal Duct System

**What is the nasolacrimal duct?** The nasolacrimal duct is involved with tear drainage from the surface of the eye to the nose. Tears are produced by lacrimal glands located around the eye. A continuous supply of tears is needed to provide nutrition and to wash away bacteria from the surface of the eye. Two small openings or "puncta" are present in the inner corners of the eyelids which allow tears to enter the nasolacrimal duct. The duct (a tube-like structure) then directs the tears through the bone and releases them inside the nose. The duct is shown in the following diagrams.



**How do I know if there is a problem with the duct?** If the duct is not present or is for some reason blocked, tears will not flow into the nose. Instead, tears will spill over the lower eyelid and wet the face under the eye. This can be irritating to the pet and in some cases can lead to bacterial infections on the skin from tear saturation.

**What causes an obstruction of the duct?** Most tear duct obstructions in the cat are due to chronic eye infections or conjunctivitis from the Feline Herpes Virus. In the dog, the obstruction is often caused by a foreign body (usually a seed or other plant debris from running through tall grass). It is possible but rare that the obstruction can be caused by an underlying tooth root infection or tumor.

**What should be done for my pet?** A nasolacrimal flush can be performed as part of the initial examination. This flush is usually diagnostic in nature and rarely is a cure for the condition. If the tear duct can not be flushed or the excessive tearing persists shortly after the flush then a nasolacrimal catheter should be placed. This catheter is a small plastic tube that is passed under heavy sedation or general anesthesia from the eyelid puncta through the duct and into the nose. The catheter is then sutured in place for three to four weeks. The tube can then be removed under another sedation and the duct flushed at the same time. While this procedure is highly successful, some pets continue to exhibit signs of nasolacrimal duct obstruction after this procedure has been performed.