



## Eye Factsheet

# Parotid Duct Transposition (PDT)

### Why has PDT been recommended for my dog?

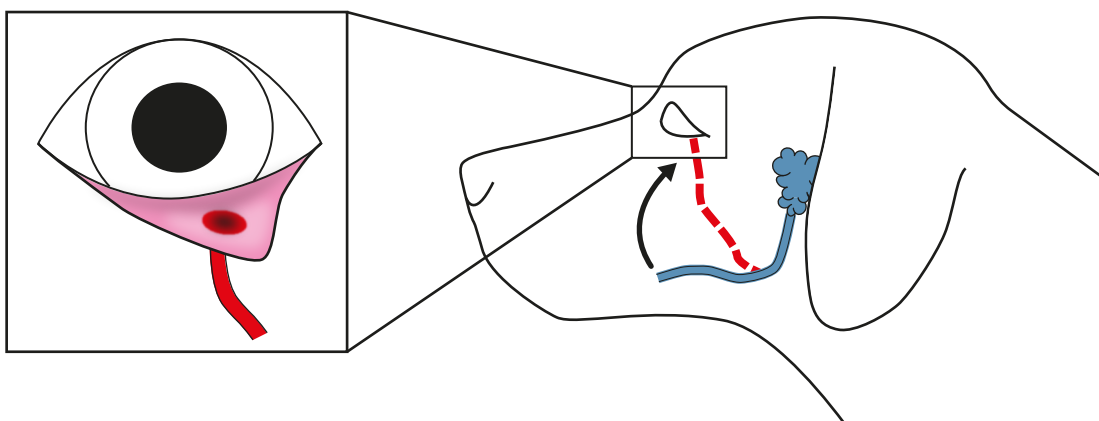
Over the past consultations, it has been determined that your dog cannot produce natural tears. Various medications have been trialled with little to no effect. Adequate tear production is absolutely essential to maintain healthy eyes for vision. If not corrected, severe dry eye disease will lead to pain (people with dry eye describe an intense gritty, burning sensation) and serious complications such as ulcers on the eye can develop. With a PDT operation, the eye will be continuously wetted by saliva, which keeps the eye comfortable.



A Westie before (top row) and six weeks after PDT surgery (bottom row). Holly could barely open her eyes before the operation due to pain. Her vision was also affected by the severe discharge. Post-operatively, Holly's comfort and discharge improved, with the latter managed by cleaning her eyes twice daily.

### What does a PDT operation involve?

The operation is performed with magnification using loupes and specialised instruments. In the dog, the parotid salivary gland is located at the base of the ear (blue gland on image), and is one of the glands responsible for producing saliva. It has a duct that travels under the skin from the base of the ear, and opens up in the mouth (blue duct). During a PDT surgery, we dissect the duct, and redirect it from the mouth to the inside of the lower eyelid (red duct on image). Once in place, it is stitched into place using very fine sutures. In principal, the saliva is then free to flow directly from the gland to the eye, replacing the saliva.



## What do I expect when my dog is discharged after a PDT operation?

- You will receive instructions after the surgery detailing all the postoperative medication.
- A protective collar should be worn for the first 14 days and exercise restricted to lead walking only.
- After surgery the saliva duct may be slightly swollen, and therefore slow down or restrict saliva flow. To overcome this, we need to stimulate saliva production with a combination of frequent feeding and other techniques that will be explained to you in detail at the time.
- Facial hygiene: with the newly redirected saliva, you will observe tear flow from both eyes which will spill and run down the cheek. You will need to clean your dog's face to maintain good hygiene and avoid saliva irritation, which may be a few times a day in the first few weeks and then it should become more regulated.
- Saliva can be irritant to the eyelid and skin which may lead to skin soreness or dermatitis.

## What could go wrong with the PDT operation?

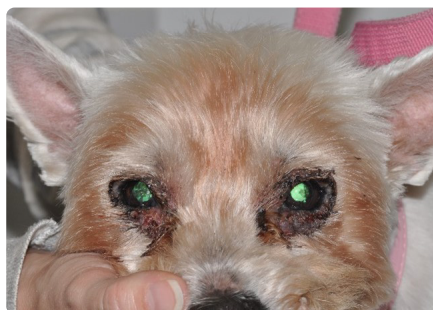
PDT is an operation that can have both short-term and long-term complications:

### Short term complications:

- Approximately 50% of patients will experience a minor complication post-operatively – most of these will be managed with a change in medication
- Stitches might rub on the cornea which can cause pain and wounding. This might require re-positioning of the stitches under a further anaesthetic  
If the dog knocks the eye, there may be some bleeding. However more seriously, this may cause the duct to detach from its new location; it would then need to be reattached.
- The saliva may stop flowing.

### Long term complications:

- There may be too much saliva giving an unacceptable level of wetting. If this occurs, an additional surgical procedure to partially reduce saliva flow may be required.
- Skin soreness or dermatitis due to salivary overflow – this can usually be managed with regular cleaning of the skin around the eye and the application of a barrier cream
- Deposition of salivary mineral crystals onto the cornea – this might require the use of eye drops or ointments
- Other short- and longer-term complications include infection or inflammation of the salivary duct, development of a cyst swelling or a saliva stone swelling.
- In some patients (1:10), the saliva is not tolerated in the eye and we have to reverse the operation. This means, that the eye returns to the state of dryness and some clients elect to have the eye removed at this stage to keep their dog comfortable.



On the left, discoloration of the facial hair due to salivary overflow. On the right a patient with serious salivary intolerance. Often, this can be managed with attention to skin care and antibiotic use but in some patients the operation has to be reversed.

Due to our extensive surgical experience, the success rate of the PDT surgery here at EVC is high. However, some patients may need more than one operation to achieve a satisfactory result. Please note that any additional procedures – expected or unexpected are likely to incur additional fees.



**Eye Veterinary Clinic**  
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