



Brachycephalic Ocular Syndrome (BOS)

What is Brachycephalic Ocular Syndrome (BOS)?

BOS refers to multiple abnormalities that are seen in brachycephalic breeds (i.e. breeds with a short and wide skull shape).

- Shallow orbits causing exophthalmos (protruding eyes)
- Exotropia (eyes which deviate outwards)
- Macoblepharon (large eyelid openings)
- Lagophthalmos (incomplete blinking)
- Trichiasis (hair touching the eye from the eyelids or nasal skin folds)
- Lower inner eyelid entropion (rolling in of the eyelid)
- Decreased sensation of the cornea (surface of the eye)

What are the consequences of BOS?

These abnormalities lead to increased corneal exposure, increased corneal irritation, and a greater chance of developing ocular surface disease (which in the most extreme cases can be vision or globe threatening) including:

- Corneal ulceration
- Corneal pigmentation
- Dry eye disease (mucoïd ocular discharge)

The lower eyelid entropion also affects the ability of tears to drain into the nasolacrimal duct, causing:

- Epiphora (wetting around the eyes and tear staining)

What is a medial canthoplasty?



Before surgery



After surgery

Medial canthoplasty is a surgical procedure which corrects many of the aforementioned abnormalities, decreasing the chance of brachycephalic breeds developing ocular surface disease.

An area of the upper and lower inner eyelid is resected, which corrects the lower eyelid entropion and associated trichiasis, improves the drainage of tears, and reduces the size of the eyelid opening, decreasing exposure of the cornea, and improving the ability to completely blink.

What to expect: day of surgery

Generally, patients will spend 1 day in hospital for this procedure. Occasionally, they may need to stay overnight. They will have a general anaesthetic and a small amount of hair will be clipped around the inner eyelids which will grow back over a few weeks. During the surgery they will receive pain relief to keep them comfortable. Dissolvable suture material will be used so typically there is no need to remove the stitches once the surgical sites have healed. The eyelids will be swollen after the surgery, and so their eyelid opening can initially appear smaller than what it will be once the swelling has resolved.

What to expect: at home post-operative care

Patients will go home with an Elizabethan collar which must be worn at all times for approximately 10-14 days whilst the surgical sites are healing. Topical antibiotic eye drops and oral pain relief will be prescribed to give during this time. They will need to be rested at home with only short, gentle lead walks until their re-examination.

Post-operative examination

A post-operative examination will generally be scheduled between 10-14 days after the procedure to check the surgical sites have healed. Once healed, they no longer need to wear the Elizabethan collar and the medication will be stopped.