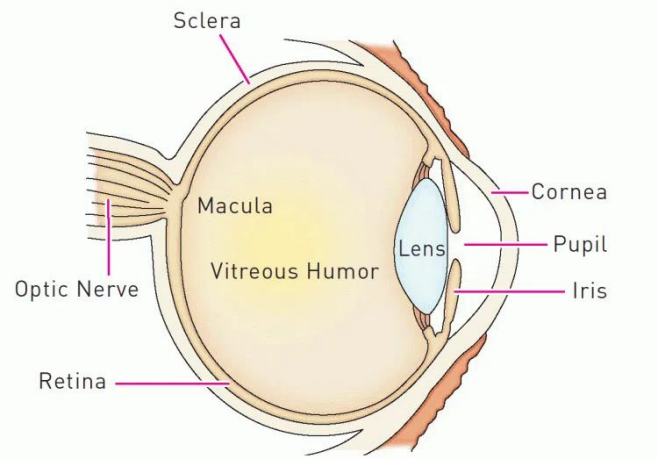
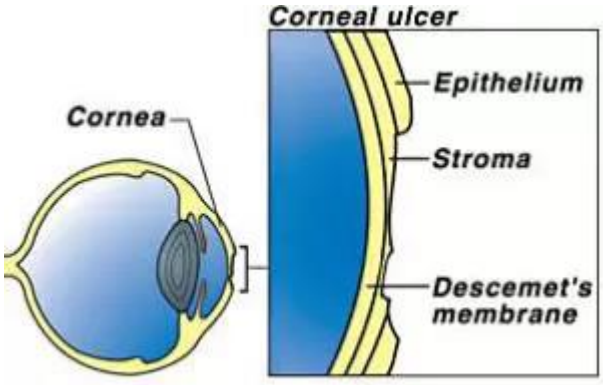
A look at eyes and conjunctivitis

The eye is a highly specialised organ surrounded by a connective tissue called the conjunctiva. The eye itself contains 2 fluid-filled chambers called the anterior (front) and posterior (back) chambers, these are separated by the lens and iris (the coloured muscle in the eye that controls pupil size). The retina is the light sensitive layer at the back of the eye that does the actual "seeing" and the front of the eye is a see-through layer called the cornea.



When eye disease develops, our first tasks are to decide if it is the conjunctiva (conjunctivitis), eye itself (uveitis) or both tissues that are affected.

Conjunctivitis is one of the more common conditions we see in dogs, and to a lesser degree in cats, it is usually bacterial in origin, but often has runaway inflammation present.
Treatment for conjunctivitis can be relatively straight forward, with an antibiotic and anti-inflammatory ointment, however we need to make sure there are no other disease process or causes involved.



Of particular importance is corneal ulceration or damage. This is where the surface of the eye has been damaged, this is important as many eyes drops (including steroid anti-inflammatory drops) can stop healing of the damaged cornea, worsen ulcers and/or cause pain if applied to damaged cornea.

An ulcer can be difficult to see, the ulcer itself is transparent, as is the surface of the eye, sometimes we can see it as a defect or dip in the surface of the eye, but the most reliable way to see one is to use a special dye called fluoresceine. This dye sticks into the damaged cornea (stroma), highlighting it a bright green, while is slides off the normal healthy cornea (epithelium).

When ulcers are present we need to be particularly careful. The eye is very quick to heal when provided with the right environment, however it can also be very quick to degenerate when there is something wrong, ulcers will often need to be re-examined within 2-3 days to ensure they are healing.

We may also need to test the eye for dry eye – a condition where the eye is not producing enough tears, this is done by a Schirmer tear test, this test is a strip of sterile paper that absorbs the tear fluid, giving a measurement over 1 minute.

Sometimes this test cannot be performed same day (when there is an ulcer, or in severe eye disease) and we may need to treat the eye first and perform this check on a follow up visit when the eye is back to baseline.

We will also examine the eyes and eyelids for other abnormalities including distichia – abnormal eyelashes that are growing into the eye; entropion – rolling of the eyelid inward causing it to rub against the cornea; cataracts – milky opaque lenses; lens luxation – where the lens has fallen out from its normal location, if it moves forward this can cause pain and uveitis; glaucoma – increased pressure in the eye (a special test measuring the pressure in the eye is performed to look for this); masses – either in the eye itself or in the conjunctiva or eyelids.

Because the eye can change rapidly it is important to follow up in cases where close monitoring is needed, this can be both to ensure the original disease is resolved, but also to look for underlying causes that can be missed when the eye is infected.
It is important NOT to use an eyedrop without specifically being instructed by your vet, there are many eyedrops that are used to treat one condition that will make another worse. Inappropriate treatment can lead to permanent scarring, blindness, or in severe cases require removal of the eye.

Wishing you all Good Health

Dr Tony