

Ophthalmic reference charts

Schirmer I tear test

Measure *before* application of any topical eye drops, especially topical local anaesthetic.

The test measures but basal and reflex tear levels.

Reading in mm/minute	Interpretation	Action required
0-10	Insufficient tear production	Treatment is required
10-15	Lower than normal	Treatment is likely to be required, monitoring is very important
15-25	Normal	Monitor pre-disposed breeds annually
>25	Normal or excessive	Needs investigation, may be caused by ocular irritation

Note – **cats** have variable results and a value of <10mm wetting per minute is considered significant in the presence of ocular surface disease.

Intraocular pressure

This is measured by tonometry, using the Tonopen, Tonovet or Schiotz tonometer

Reading in mm/Hg	Interpretation	Action required
<10	Low intraocular pressure	Check for other symptoms of uveitis
10-14	Likely normal – the Tonopen often reads normal eyes within this range	Repeat at a later date if there is a future suspicion of glaucoma or uveitis
15-25	Normal	Repeat at a later date if there is a future suspicion of glaucoma or uveitis
>25	Raised intraocular pressure	Risk of glaucoma – use topical glaucoma drops and consider systemic medications. Refer urgently.

i-protex veterinary bandage lenses

Choosing the correct size can be tricky. A lens which is the incorrect size or diameter will quickly become dislodged. The following is a guide as recommended by the distributors of the lenses – Veterinary Speciality Products

CAT SIZES	DIAMETER	BOZR
Young/small cats/dogs	15.5	8.5
Normal domestic – slightly smaller	16.0	8.8
Standard / normal domestic – slightly larger	16.0	9.2
Persian breeds – larger eye	18.0	9.4

DOG SIZES		
Standard / medium – slightly smaller	18.0	9.6
Standard / medium – slightly larger	18.0	9.8
Large eye	20.0	10.4
Very large (rarely needed)	22.0	11.4

HORSE SIZES		
Ponies / small horses / donkeys	32.0	17.0
Most horses	34.0	18.0

BREED EXAMPLES		
Young / small cats. Small terrier dogs	15.5	8.5
Most domestic cats. Small dogs	16.0	8.8
Larger domestic cats. CKCS	16.0	9.2
Most dog breeds – collies, huskies, corgis, boxers	18.0	9.6
Most dog breeds – labradors, retrievers, boxers	18.0	9.8
Some bulldogs, some boxers	20.0	10.4
Only very large eyes	22.0	11.4

The external diameter of the iris is measured in mm. This is most easily measured horizontally and approximates to the straight-line corneal diameter. Then 1-2mm are added to give a lens diameter such that the lens will bridge the limbus.

The required BOZR (radius of curvature of the lens) can be estimated using the gauge. Position it close to the front of the cornea (not touching) in order to compare the curvature of the gauge profiles with that of the eye (it often helps to look down from above the animal's head so that the cornea is sky-lined). The BOZR that most closely matches the curvature of the cornea should be selected.