

# ANIMAL MATTERS: Tips & Treatments



Michigan Veterinary  
Specialists<sup>sm</sup>

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## OPHTHALMOLOGY

### Ups and Downs of Intraocular Pressure

<b>What is normal?</b>	In most species 15-25mmHg is considered normal.
<b>How is intraocular pressure (IOP) measured?</b>	Tonometry, the measurement of intraocular pressure, can be performed with a number of different instruments. The Schiøtz tonometer is the oldest instrument, and uses indentation of the cornea. The tonopen determines the pressure needed to flatten an area of the cornea (applanation). The tonovet utilizes a small probe and measures through rebound. All instruments can be used in small animals, but the tonopen and tonovet are applicable for horses and other large animals.
<b>IOP less than 15mmHg</b>	Low intraocular pressure is generally associated with uveitis as well as other disease processes. A low pressure alone does not require specific treatment, but is a helpful aid in evaluation of the eye.
<b>IOP greater than 30mmHg</b>	Intraocular pressure that is greater than 30mmHg with concurrent clinical signs of glaucoma requires treatment. Pressures greater than 45-50mmHg can lead to permanent vision loss in a few hours and emergency treatment should be instituted.
<b>Tips on measurement</b>	Topical anesthetic is necessary for accurate measurements with the Schiøtz tonometer and tonopen. False elevations in IOP can be created when the eyelids are retracted too tightly, particularly in brachycephalic breeds of dogs. False elevations can also result if too much pressure is placed around the neck. Gentle restraint is always most helpful.  If the pressure reading does not coincide with clinical symptoms one of the best options is to have a co-worker measure the pressure or try relaxing the method of restraint. Typically IOP measurements should be within 10% of one another.

### **MVS Ophthalmology Clinicians:**

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MVS ophthalmologists serve as an extension of your practice. Our diplomates have years of additional training beyond a DVM degree and have been board-certified by the American College of Veterinary Ophthalmologists to assure competency in advanced veterinary ophthalmology. We offer ophthalmic service at all three MVS hospitals as well as additional off-site locations (see list below).

### **Questions?**

Our ophthalmology staff is available for questions and consultations on ophthalmic conditions.

#### **LOCATIONS**

29080 Inkster Rd.  
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3412 East Walton Blvd.  
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**Additional locations for consultation include: Toledo, Ann Arbor and Grayling.**