

# Tono-Pen®

The world's first completely portable units for measuring intraocular pressure. The Tono-Pens® are built on 20 years of accuracy, reliability and ease of use.

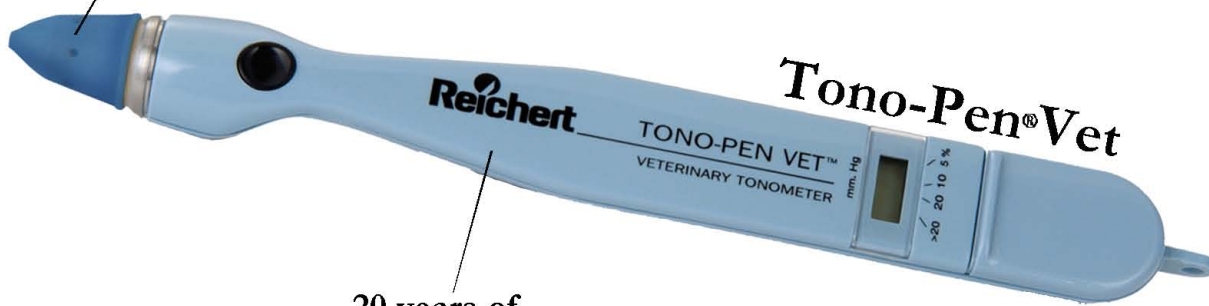
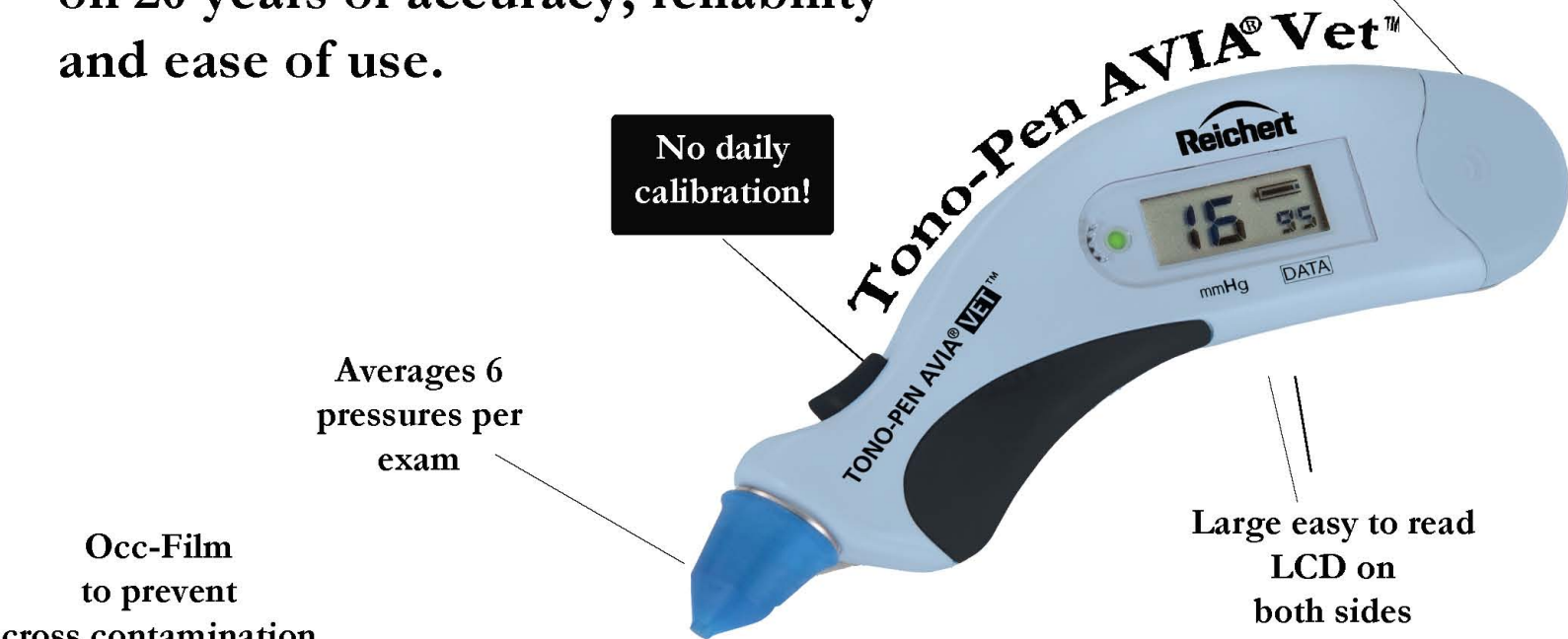
4 x longer lasting battery. Over 2500 measurements

No daily calibration!

Averages 6 pressures per exam

Occ-Film to prevent cross contamination

Large easy to read LCD on both sides



20 years of experience in veterinary medicine



Dan Scott & Associates

Exclusively available from Dan Scott & Associates, Inc.  
1-888-TONO-PEN ~ (614) 890-0370 ~ [www.danscottandassociates.com](http://www.danscottandassociates.com)

Proudly Made in USA

# CAN I NOT AFFORD A TONOMETER?

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College of Veterinary Medicine  
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Determination of intraocular pressure (IOP) is indicated in all eyes with diffuse corneal edema, anisocoria, fixed and dilated pupils, episcleral congestion, blindness, buphthalmos and anterior uveitis. In addition, animals with medically or surgically controlled glaucoma require sequential determination of IOP to ensure adequate control and animals with unilateral primary glaucoma and breeds predisposed to primary glaucoma require monitoring of the IOP in the unaffected at risk eyes.

Determination of intraocular pressure requires an instrument that is fast, accurate, portable and user friendly. As clinicians we must feel we can rely on the accuracy of the test and make treatment decisions based on the results. In my opinion, most of us do not feel this way about the Schiottz tonometer and consequentially, this instrument remains in it's case in a drawer.

There are 2 specific ways to determine intraocular pressure: indentation tonometry and applanation tonometry.

The indentation tonometer measures the amount of corneal indentation that occurs when a given weight is placed on the cornea. The result is inversely proportional to the intraocular pressure and the actual pressure must be obtained from a table of values.

The Schiottz tonometer is an indentation tonometer. The Schiottz tonometer requires assembly, disassembly and cleaning in order to ensure it's accuracy. The footplate is large and the patient must be cooperative in order to place the footplate on the cornea in a vertical position. If the animal is fractious or the eye painful then it is unlikely that accurate placement will be obtained and erroneous values will result. My clinical experience is that practices with a Schiottz tonometer either do not use it or do not believe the results obtained. In many instances, pressures obtained by this method are not confirmed on referral to a specialist. The result is that glaucoma is not diagnosed or monitored accurately and IOP determination is not performed at the frequency indicated by the breed or clinical signs.

Applanation tonometry determines IOP by evaluating the force require to applanate or flatten a given surface area of cornea. Typically in veterinary ophthalmology these are electronic or battery powered tonometers. They have been shown to be highly accurate across species and a wide range of IOP's. In recent years, the Tono-pen Vet\* (Dan Scott, Columbus, Ohio 614-890-0370) has been evaluated and shown to be similar to the other applanation tonometers in accuracy. It is lightweight, portable, accurate, self-calibrating and averages several readings and gives a % error to ensure accuracy. In addition, the small foot plate allows this tonometer to be used on painful eyes in less cooperative patients as only a small area of the cornea is required to obtain a reading and the position of the patients head is not related to obtaining the reading. Finally, this is the only tonometer that is portable enough to allow routine IOP determination in the equine patient. Equine glaucoma in recent years has received attention and has increased in prevalence solely due to the availability of the Tonopen XL and the increase in the number of equine eyes that are evaluated.

The ease of use, accuracy, and comfort level this tonometer gives your practice will ensure it's frequent use. Increase your hospital awareness of glaucoma. Allow early and prompt referral of glaucoma patients to a specialist if indicated and subsequent referral of your glaucoma patients back to your hospital for monitoring following laser or other glaucoma surgery by a specialist. In addition, the Tonopen XL will allow you to incorporate IOP determination as a routine part of the physical examination in those breeds predisposed to primary glaucoma.

# TONOMETRY SCREENING: GOOD MEDICINE AND GOOD BUSINESS

Ronald E. Whitford, DVM

Today's practice is becoming more and more competitive for the client's discretionary dollars available for pet care. The most profitable marketing strategy for the practitioner is to stress the marketing of the professional services that most limit competition. Professional services are limited by our license to practice veterinary medicine. It is even more limited by the percentage of DVMs committed to offering the highest quality veterinary care possible.

As the human/pet bond continues to grow, so does the value of the pet as a family member. More and more clients EXPECT us to provide PROACTIVE PREVENTIVE HEALTH CARE. Proactive Preventive health care is much less expensive to the owner, than crisis care. Proactive provides the pet the best opportunity to live longest and high quality life possible. Proactive Preventive care allows the veterinarian to develop treatment plans BEFORE irreversible effects take place. Proactive Preventive Care is a win-win situation for the pet, client, and practitioner.

Many clinics are now offering geriatric programs which essentially are "screenings" to detect problems not yet severe enough to cause clinical signs.

GLAUCOMA SCREENING SHOULD NOW BE CONSIDERED. A state-of-the-art screening tool is now available, making glaucoma screening easy and affordable. There are 42 breeds of dogs that classified as predisposed to glaucoma, as well as mixes of the breeds. For these breeds, it is just good medicine to establish baselines on these pets the first time they are presented to the veterinarian-even as a young puppy. Monitoring of these pets on an annual basis is recommended by all ophthalmologists. Pets with a history of glaucoma in the bloodline should be monitored more frequently.

Other indications for glaucoma screenings would include all "red eye" cases, all head trauma cases; all eye trauma cases, and screening of all "senior pets" starting at 6-7 years of age. Glaucoma cannot be cured, but can be controlled, especially if caught early. Early detection is the only way of controlling glaucoma.

## HOW TO MARKET GLAUCOMA SCREENING

**1. EDUCATE YOURSELF AND YOUR STAFF:** Where the rubber will meet the road in the future of private practice will be in your medical competence. Today's client expects you to be the expert in all facets of pet wellness. Numerous reference books and many continuing educational seminars can provide you with the information you need to be medically competent.

**2. EQUIP YOURSELF:** Until recently, veterinarians had to rely on the Schiotz tonometer. This instrument is cumbersome to use and requires a large degree of pet restraint. The difficulty in using the instrument has greatly limited glaucoma screening. From my experience as a practice management consultant, less than 50% of the practices I have visited have the instrument in the clinic.

A New instrument has become available, greatly enhancing the ease of glaucoma screening. The TONO-PEN VET Tonometer is battery operated, accurate, versatile, and reliable. Sanitized tip covers are used to eliminate cross contamination. The TONO-PEN VET unit is gently tapped on the cornea after the application of topical anesthetic. Four measurements are taken. The unit then displays an average of four readings, along with an accompanying coefficient of variance. Testing is quick, easy, and reproducible. Information is available for DAN SCOTT & ASSOCIATES (1-888-866-6736).

**3. EDUCATE STAFF:** Staff must understand the reasons for glaucoma screening, the best salesman is on sold on the product. Screening all pets owned by staff can stress the importance as well as teach all veterinarians how to use the instrument correctly.

**4. FIND THE NEED:** Determine your list of indications when screening is indicated.

**5. EDUCATE THE CLIENT:** Clients will not accept what they do not understand. The client is the foundation of all marketing of professional services. Educated clients, more services, and handouts can be utilized to educate the client, but most creditable education comes form one-on-one time with either the veterinarian or the staff.

**6. REMIND CLIENTS:** List glaucoma screening as one of the services you recommend when preventive care visit reminders are sent out. This can target market the breeds disposed to glaucoma and all geriatric pets. "Seedplanting" the idea increases acceptance of the recommendation when presented during the visit.

**7. MAKE IT CONVENIENT:** Convenience is the essence of all marketing efforts. Performing it during the routine physical exam makes it time efficient. The new instrument now available will greatly decrease the time needed for taking the readings.

**8. PRICE FOR YOUR MARKET:** There is little on-going cost for offering glaucoma screening. Batteries and tip covers costs are minimal. Therefore the only major cost to you incur is the initial purchase of the unit. I recommend charging a fee acceptable to 80% of your clients. This might be \$2 or it might be \$35. Obviously, the higher the fee, the quicker the unit is recouped and almost 100% profit from its use will be gained. The greatest way to decrease cost/unit volume is to spread it over more patients. Set a fee that will cause at least 80% of all clients to accept the procedure. Even charging \$2, if used on every patient, will pay for the unit in the first year. Some practices have even added this service as a value-added benefit of the annual comprehensive physical exam.

**9. RE-CHECKS ARE IMPORTANT:** Scheduling rechecks on predisposed breeds at regular intervals is good medicine and good business.

### **FINAL NOTE**

Never assume the client is aware of all the services the pet needs that you can provide. Also, never assume the client perceives your medical competence and abilities. Glaucoma screening is good medicine and good business. It provides good information while at the same time having tremendous potential for building the practice's professional image, competence, and income.

### **UTILIZE YOUR STAFF**

The most efficient use of screening equipment such as the TONO-PEN VET is train your staff to actually do the screenings. While you finish in one exam room, your technician should be conducting a variety of screening (such as glaucoma screening) tests, much like the nurse performs in your doctor's office. Your job is then to interpret the data collected. If you look at the animal's eye and it physically looks abnormal, or you look at the IOP(Intraocular Pressure) and it reads abnormal; you now have additional options: 1.) Refer the animal and the problem to the specialist 2.) Perform a complete ophthalmic work-up and then consult the specialists with the good data you have collected and decide on a course of action. Two potential sources of income are created with the one additional screening service.

# **ALL ANIMAL EYE CLINIC**

Kerry L. Ketring, D.V.M.

Erin S. Champagne, D.V.M.

Diplomates, American College of Veterinary Ophthalmologists

## **Glaucoma**

There are several compelling reasons for the veterinarian to accurately measure the pressure of the eyes of his patients. Glaucoma has been, and will remain, one of the main causes of blindness in dogs. It is a disease frequently diagnosed based only on the 'cardinal signs' without measuring the animal's intraocular pressure. That can be disastrous for the animal. Finally, glaucoma leads the list of painful ophthalmic diseases. Even after blindness, the quality of life is poor due not to the actual blindness but to the severe pain.

The Tono-pen Vet affords the general practitioner an excellent means of measuring the IOP. Early diagnosis is the only chance you have to prevent blindness and the associated pain. Demonstrating a decrease of normal IOP in an inflamed and/or cloudy eye allows reaching a correct diagnosis and treating a disease which may have been erroneously called glaucoma.

Once a true increase in IOP is demonstrated, I feel the animal should be referred to a veterinary ophthalmologist. Instituting therapy without identifying the cause of glaucoma (primary vs. secondary) and the potential for vision in the eye may lead to poor or even devastating results. Continual medical treatment in an irreversibly blind eye is not in the animal's or owner's best interest. Glaucoma is difficult to manage even in the hands of experienced specialists.

General practitioners should take advantage of the convenience and reliability of the Tono-Pen Vet because it is just good medicine to measure the IOP in all individuals in predisposed breeds and in all dogs presented with conjunctival injection, corneal edema or decreased vision.

With proper use and referral when indicated, the Tono-Pen Vet should prove to be instrumental in preventing blindness and pain due to glaucoma.

## **CRITERIA FOR MEASURING I.O.P.**

- **EVERY ANIMAL IN YOUR PRACTICE SHOULD HAVE AN INTRAOCULAR BASELINE SPECIFIC TO THAT ANIMAL**
- **IOP SHOULD BE MEASURED ON THE 42 BREEDS OF DOGS THAT ARE PREDISPOSED TO GLAUCOMA AND THE MIXES OF THESE BREEDS ON AN ANNUAL BASIS; MORE FREQUENTLY IF A HISTORY OF GLAUCOMA HAS BEEN ESTABLISHED IN THE BLOODLINE.**
- **A BASELINE SHOULD BE ESTABLISHED ON THESE ANIMALS THE FIRST TIME THEY ARE PRESENTED TO THE VETERINARIAN. THESE ANIMALS SHOULD BE MONITORED ON AN ANNUAL BASIS. IF A HISTORY OF GLAUCOMA IS ALREADY IN THE BLOODLINE, THESE ANIMALS SHOULD BE MONITORED MORE FREQUENTLY.**

**DR. MILTON WYMAN, DIPLOMATE ACVO**

- **ALL GERIATRIC EXAMS**

**SCREENING ON AN ANNUAL BASIS OF ALL “SENIOR PETS” SHOULD BEGIN AT 6-7 YEARS OF AGE.**

- **ALL RED EYE CASES**

**ONLY TWO CAUSES OF RED EYE HAVE ABNORMAL IOP PRESSURES; GLAUCOMA (HIGH), UVEITIS (LOW), ALL OTHER CAUSES OF RED EYE MEASURE NORMAL IOP PRESSURE**

- **ALL HEAD TRAUMA**

- **ALL EYE TRAUMA**

- **GLAUCOMA IS A GROUP OF DISEASES THAT CANNOT BE CURED BUT ONLY CONTROLLED.**

1. **PRIMARY-no overt cause for the glaucoma**
2. **SECONDARY-cause for the elevated IOP can be determined**
3. **CONGENITAL-where congenital iridocorneal angle anomalies eventually elevate IOP**

- **EARLY DETECTION IS THE ONLY WAY OF CONTROLLING GLAUCOMA!**

Breeds Predisposed to  
Primary Glaucoma

Afghan	Dandie Dinmont Terrier	Pekingese
Akita	English Cocker Spaniel	Pembroke Welsh Corgi
Alaskan Malamute	English Springer Spaniel	Petit Basset Griffon Vendéen
American Eskimo Dog	Entlebucher Mountain Dog	Poodle (all varieties)
Australian Cattle Dog	Flat-coated Retriever	Pug
Basset Hound	Fox Terrier	Saluki
Beagle (Field Trial)	Giant Schnauzer	Samoyed
Bedlington Terrier	Golden Retriever	Schnauzer (all varieties)
Bichon Frise	Great Dane	Scottish Terrier
Blue Healer	Greyhound	Sealyham Terrier
Border Collie	Irish Setter	Shar Pei
Boston Terrier	Italian Greyhound	Shiba Inu
Bouvier des Flanders	Keeshond	Shih Tzu
Brittany	Labrador Retriever	Siberian Husky
Bullmastiff	Lakeland Terrier	Skye Terrier
Cairn Terrier	Maltese	Smooth Coated Fox Terrier
Cardigan Welsh Corgi	Manchester Terrier	Tibetan Terrier
Chihuahua	Miniature Pinscher	Welsh Springer Spaniel
Chow Chow	Newfoundland	Welsh Terrier
Cocker Spanie	Norfolk Terrier	West Highland WhiteTerrier
Dachshund	Norwegian Elkhound	Wire Fox Terrier
Dalmatian	Norwich Terrier	Whippet

Cat Breeds with a Predisposition to Glaucoma\*\*

Persians	Siamese ”	“Some Domestic Short-hairs
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# Tono-Pen® Vet Glaucoma Screening Program Analysis

## Animals Tested per Week (based on a 52 week year)

Fee per exam	2	4	6	8	10	12	14	16	18
\$ 5.00	\$ 520.00	\$ 1,040.00	\$ 1,560.00	\$ 2,080.00	\$ 2,600.00	\$ 3,120.00	\$ 3,640.00	\$ 4,160.00	\$ 4,680.00
\$ 10.00	\$ 1,040.00	\$ 2,080.00	\$ 3,120.00	\$ 4,160.00	\$ 5,200.00	\$ 6,240.00	\$ 7,280.00	\$ 8,320.00	\$ 9,360.00
\$ 15.00	\$ 1,560.00	\$ 3,120.00	\$ 4,680.00	\$ 6,240.00	\$ 7,800.00	\$ 9,360.00	\$ 10,920.00	\$ 12,480.00	\$ 14,040.00
\$ 20.00	\$ 2,080.00	\$ 4,160.00	\$ 6,240.00	\$ 8,320.00	\$ 10,400.00	\$ 12,480.00	\$ 14,560.00	\$ 16,640.00	\$ 18,720.00
\$ 25.00	\$ 2,600.00	\$ 5,200.00	\$ 7,800.00	\$ 10,400.00	\$ 12,500.00	\$ 15,600.00	\$ 18,200.00	\$ 20,800.00	\$ 23,400.00
\$ 30.00	\$ 3,120.00	\$ 6,240.00	\$ 9,360.00	\$ 12,480.00	\$ 15,600.00	\$ 18,720.00	\$ 21,840.00	\$ 24,960.00	\$ 28,080.00
\$ 35.00	\$ 3,640.00	\$ 7,280.00	\$ 10,920.00	\$ 14,560.00	\$ 18,200.00	\$ 21,840.00	\$ 25,480.00	\$ 29,120.00	\$ 32,760.00
\$ 50.00	\$ 5,200.00	\$ 10,400.00	\$ 15,600.00	\$ 20,800.00	\$ 26,000.00	\$ 31,200.00	\$ 36,400.00	\$ 41,600.00	\$ 46,800.00
\$ 60.00	\$ 6,240.00	\$ 12,480.00	\$ 18,720.00	\$ 24,960.00	\$ 31,200.00	\$ 37,440.00	\$ 43,680.00	\$ 49,920.00	\$ 56,160.00

### Annual Revenue

 = National Average for Tonometry Screenings

### Dog Breeds with a Predisposition to Glaucoma\*\*

AFGHAN	DANDIE DINMONTI TERRIER	SCHITZU
AKITA	ENGLISH SPRINGER SPANIEL	SIBERIAN HUSKY
ALASKAN MALAMUTE	GIANT SCHNAUZER	SKYE TERRIER
BASSET HOUND	GREAT DANE	SMOOTH-COATED FOX TERRIER
BEAGLE	MALTESE	TIBETAN TERRIER
BORDER COLLIE	MANCHESTER TERRIER	WELSH SPRINGER SPANIEL
BOSTON TERRIER	MINIATURE PINSCHER	WELSH TERRIER
BOUVIER DES FLANDERSCAIRN TERRIER	NORFOLK ELKHOUND	WEST HIGHLAND WHITE TERRIER
CANADIAN WELSH CORGI	NORWICH TERRIER	WHIPPET
CHIUAHUA	PEMBROKE WEELSHCORGI	WIRE-HAIRED FOX TERRIER
CHOW	POODLE	SAMOYED
COCKER SPANIEL	SALUKI	SCOTTISH TERRIER
	DACHSUND	DALMATION

\*\*Reference: Brooks, D.E. *Glaucoma in the Dog and Cat, Veterinarian Clinic North American ( Small Animal Practice) 20; 775-797, 1990*





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**The TONO-PEN VET & TONO-PEN AVIA VET is distributed to  
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**TONO-PEN VET**  
**TONO-PEN AVIA VET**



**\*\*\* 0 % FINANCING OVER 12-MONTHS \*\*\***



**Terms: Due on Receipt**

( payment may be by check, money order, or all major credit cards )

**“When I first bought my TONO-PEN VET, I used it like I used a Schiotz tonometer; not very often and only when I absolutely had to take a reading. After listening to the Ophthalmologists talk about how often I should be taking IOP readings I now do Tonometry on every animal that comes in for an annual exam. I charge \$22.00 for tonometry and I have not had one complaint from a client. I make over \$ 200.00/ day with the TONO-PEN VET!” Dr. J.A. Simi Valley, CA**

**“I feel that any piece of equipment that increases my ability to provide good medical care for my patients, increase clients perception of quality and at the same time generates a profit, should make the purchase of such a piece of equipment a “no brainer.” The TONO-PEN VET has truly turned out to be such a purchase. The TONO-PEN VET has been the most cost effective piece of equipment we have added to our practice.” Dr. T.S. Marysville, OH**

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