



OMNI EYE SERVICES

# the Observer

*extending the power of your practice*

CATARACT   RETINAL DISEASE   LASIK   GLAUCOMA   OCULOPLASTIC   PEDIATRIC   NEURO EYE DISEASES

## A Systematic Approach to a Common Patient Complaint: Effective Treatment of the Tearing Patient

By Dr. James Milite

Tearing is one of the most common yet least specific ocular complaints. It may be a sign of ocular irritation, dryness, light sensitivity, poorly corrected refractive error, reaction to environmental factors or obstruction of the lacrimal excretory apparatus. Many tearing patients find minimal or no relief of their symptoms when initially treated by their primary eye care physician, and as a result go from doctor to doctor to find "the answer" to their problem. This can be avoided by a careful systematic approach to the patient which focuses on careful history taking and complete, deliberate clinical examination.

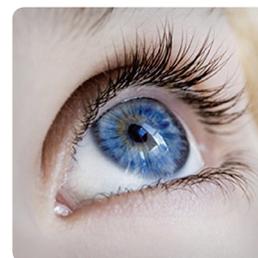


The causes of tearing are simply divided into excessive secretion, which overwhelms a patent outflow system, or normal or even sub-normal tear volume in the setting of a stenotic or blocked tear duct (poor excretion). Simply, there has to be a balance between tear production (the faucet) and outflow (the drain). Lacrimal outflow obstruction can occur anywhere along the length of the nasolacrimal duct and will cause tearing along with possible mucopurulent discharge depending on the exact anatomic site of the blockage. In contrast

a patient with a perfectly normal outflow system will tear when the secreted volume of tears exceeds the tear ducts' carrying capacity. Such scenarios include abrasion of the ocular surface, intraocular inflammation and primary hypersecretion of tears (which can be neurologic or idiopathic). Paradoxically, dry eye can also produce such symptoms as a deficient baseline tear lake can lead to reflex hypersecretion when ocular surface drying reaching critical levels, yielding a symptom of wetness in an underlying dry eye state.

In history taking for the tearing patient, it is important to ask the right questions and carefully listen to the details of the patient complaints. Are the symptoms constant or intermittent? Constant symptoms are much more likely to be due to outflow problems. Unilateral tearing is also more likely, though not exclusively, caused by compromised tear excretion. Periods of remission, seasonality, and change in symptoms with travel are indicators of environmental irritation and allergy. Exacerbation with prolonged eyestrain or in dry environments with moving air suggests evaporative tear loss in the dry eye patient with secondary reflex hypersecretion. Associated symptoms of eye redness and foreign body sensation suggest dry eye, conjunctival inflammation (esp. in allergy), or foreign body response to conjunctival concretions, lesions or trichiasis. Discharge may be noted, more frequently stringy and diffuse in allergic conjunctivitis compared to thick, concentrated, milky discharge in the patient with lacrimal duct obstruction. Past history may include previous nasal or sinus disease/surgery, known allergies, history of chronic use of ocular medications (some can lead to punctal stenosis or toxic conjunctivitis), prior ocular infection (some viral agents can cause punctual/canalicular strictures), or systemic medical disease/treatment (many cancer patients receive radiotherapy or chemotherapy which can cause strictures of the lacrimal system).

The exam of the tearing patient should focus on a full assessment of the anterior segment, eyelids, tear volume and quality, and, when appropriate, irrigation of the outflow system. Look for abnormalities of eyelid position (ectropion, entropion, lagophthalmos), inadequate blink frequency, punctal stenosis or malposition, trichiasis, or lesions of the eyelid margin which touch the ocular surface. Is there conjunctival edema, injection, papillary reaction or follicles?



### IN THIS ISSUE

A Systematic Approach to a common Patient Complaint: Effective Treatment of the Tearing Patient

Dr. Katherine Mastrotta - NYSOA Optometrist of the Year

The Omni Center for Dry Eye Specialty Care

The KAMRA Corneal Inlay

Omni Doctors Outside of Omni

CONTINUED ON NEXT PAGE

These findings could suggest allergic or toxic conjunctivitis as a possible cause of tearing. Note the height of the tear meniscus, tear breakup time, presence of ocular surface staining with Rose Bengal or Fluorescein. Is the patient actually tearing during the exam and is there an associated discharge? Is the discharge diffuse and stringy (more likely allergic) or thick and milky and concentrated in the medial canthus (more likely NLD obstruction)? The lacrimal sac should be palpated. If it is distended or yields reflux through the puncta on compression, then obstruction of the portion of the lacrimal duct inferior to the lacrimal sac is virtually confirmed.

The patient with the complaint of tearing with underlying dry eye is particularly frustrated because their symptoms appear to be incongruent with their diagnosis. Inadequate wetting of the cornea and ocular surface in these patients creates an inflammatory cascade leading to a sensation of "wetness" and causing an increased reactivity of the eye to environmental irritation. Moving dry air, such as cold breezes and forced air in cars and homes or workplaces, increases tear evaporation and initiates reactive hypersecretion. Similarly, the eye surface is dried more easily in these patients by prolonged eye work (such as extended periods of reading, driving, computer/device use) where visual attentiveness is high and blinking is minimized causing compensatory tearing. Eyelid margin disease and Meibomian dysfunction can cause or compound dry eye related tearing, as abnormality of the lipid layer of the tears creates an unstable tear lake with poor surface tension and rapid tear break up. Also, any chronic conjunctivitis or mucosal cicatrizing processes can cause goblet cell loss, leading to reduced tear mucin and deficient tear adherence to the ocular surface. Optimization of surface wetting with lubricants, appropriate use of Restasis or other anti-inflammatories, correction of contributing eyelid disease/malposition, punctal blockade, and patient education and behavioral modification all have a role in treating the tearing patient with dry eye.

Allergic conjunctivitis makes up an increasing proportion of patients with tearing. The cause of this symptom in this patient group is multi-factorial. These patients have a reactive tear hypersecretion due to mast cell activation with release of histamines and synthesis of prostaglandins and leukotrienes. They also frequently have an obstructive epiphora caused by relative stenosis of the puncta. This is because the conjunctival edema seen in these patients leads to swelling of the punctal aperture thereby reducing the diameter of the punctal ostium. These

patients may deny a known allergy history or have had a previously negative allergy workup. They are identified by noting the above-mentioned findings in the setting of a bilateral papillary conjunctivitis with a scant mucoid discharge. Mast cell stabilizers are the mainstay of treatment of these patients, but frequently patients have used these drugs unsuccessfully. Reinforcement of the need to consistently use mast cell stabilizers for at least 2 weeks when they are introduced is key to improving symptoms in these patients. This can be facilitated by initiating their use in concert with a low potency steroid 2-3 times per day at onset of therapy, with a taper of steroids as tearing and conjunctival inflammation improve. The patient also must be reminded to continue consistently taking the mast cell stabilizer after the symptoms have improved or allergen response blockade will be lost and symptoms will return. The ability of the patient to discontinue therapy will depend on the seasonality of the underlying allergen or the ability to eliminate the causative agent from the environment if it is not seasonal.

When workup of the tearing patient indicates lacrimal outflow system blockage, the gold standard in clinical evaluation is lacrimal irrigation. Clearly there are clues on examination that indicate obstruction is likely. These include delay of dye disappearance, punctal stenosis, lacrimal sac distension, reflux of mucus or pus on lacrimal sac compression, or signs of dacryocystitis. A patient may have a scar or frank eyelid malposition that effects the position of the punctum or the patency of the punctum or canaliculus. If there is edema of the punctal opening with erythema and distention of the eyelid medial to the punctum, but not affecting the lacrimal sac area, canaliculitis should be considered. Correction of this entity will usually require canaliculotomy with curettage and it is caused by the presence of intra-canalicular bacterial stones or punctal plugs eliciting foreign body response.

Irrigation of the lacrimal system is often deferred on initial exam, to be performed later by an oculoplastic specialist. However, this technique can be readily learned with proper training. No patient with signs of infection should be irrigated. Dacryocystitis is diagnostic of nasolacrimal duct obstruction and irrigation is painful and unnecessary. Also some patients with punctal absence or stenosis cannot be successfully irrigated in the office. In this group, it is important to make them aware that correction of punctal patency may not be curative of their tearing as additional downstream obstruction may be present which cannot be detected until the punctum is opened.

Lacrimal irrigation requires a fine punctal dilator and a lacrimal irrigation cannula placed on a 3 cc syringe. The syringe should be filled with about 1.5cc of sterile saline. More that that amount makes depression of the syringe plunger

difficult and can increase patient discomfort. Topical proparacaine should be instilled into the relevant eye and the punctum is dilated with the punctal dilator. Typically the lower system is irrigated, but the upper system should be irrigated as well if the clinical scenario is directed toward the upper punctum or if the lower system cannot be irrigated. Entry into the punctum should be perpendicular to the eyelid margin and, after 2mm, a right angle turn should be made with the dilator toward the medial commissure, taking care not to catch the tip of the dilator on the wall of the canaliculus. "Bunching" of the eyelid should not occur; if it does, it could indicate a canalicular stricture or that the tip of the dilator is pressing into the wall of the canaliculus, which can create a false passage. The dilator should not be forced to avoid canalicular trauma. If the punctum can be dilated, the irrigation cannula can be placed in identical fashion to the dilator and, after inserting 4-5mm of its length, the saline may be irrigated into the lacrimal system. Rapid detection of the saline in the nose or throat by the patient without reflux of the irrigant indicates lacrimal system patency.

Blockage of the system can be localized, by observing the flow of the irrigant. If all saline refluxes throughout the upper canaliculus when the lower system is flushed, then there is a complete obstruction below the level of the sac, as the saline filled the sac and followed the path of least resistance back out of the upper canaliculus. Partial obstruction is noted as delayed and minimal detection of saline in the throat accompanied by reflux of some of the saline out of the upper system. Canalicular blockage is diagnosed by failure to irrigate into the sac, often accompanied by reflux through the same punctum as irrigated and a possible palpable "hard stop" on passage of the cannula. Any detection of anatomic obstruction at any level is an indication for referral to an ophthalmic plastic specialist for further evaluation.

There is, of course a black hole of patients who fit none of the above categories and whose workup is completely normal, yet they complain of persistent tearing. Neurologically, some patients with history of VII nerve palsy can have tear hypersecretion, due to aberrant regeneration of salivary fibers to the lacrimal glands. In the absence of pre-existing nerve VII dysfunction, such patients are felt to have primary hypersecretion. These patients may be relieved to find there is no disease process underlying their epiphora, but are frustrated by lack of a diagnosable cause and treatment for their symptoms. It is important to reassure these patients that there is no intrinsic ocular danger caused by excessive tear volume. Light sensitivity and associated use of tinted glasses should be considered for these patients, though improvement of symptoms certainly is rare.

Tearing patients cannot always be completely relieved of their symptoms, but a careful clinical approach can lead to more accurate diagnosis, better treatment outcomes and less patient frustration.

## DR. KATHERINE MASTROTA – NYSOA OPTOMETRIST OF THE YEAR

Dr. Katherine Mastrotta was chosen to receive the New York State Optometric Association's 2016 *Optometrist of the Year Award* in recognition of her service as **Regional Practice Ambassador** for Omni Eye Surgery. She was honored April 16<sup>th</sup> at the 121<sup>st</sup> annual meeting of the New York State Optometric Association among friends and colleagues. Congratulations Dr. Mastrotta!



# The Omni Center for Dry Eye Specialty Care

It is with excitement that Omni announces the Spring 2016 launch of the Omni Center for Dry Eye Specialty Care. We are excited to offer this service to your ocular surface disease patients. Omni has spent months planning and fine-tuning our dry eye diagnostic and treatment offerings in New Jersey and New York, developing services equipped with the latest technology in this arena.

To assume or complement dry eye care for your patient, the Omni Center for Dry Eye Specialty Care will fully profile your patient's case reviewing risk factors/causes for dry eye, analyze the tear film for inflammatory and/or allergic markers, profile the ocular surface status, measure blink rate and excursion and evaluate the lids and lid margins for treatment of options in blepharitis and meibomian gland dysfunction. As customary, our referring doctors will be kept abreast of every patient's evaluation, treatment plan and progress via faxed clinical reports.

The Omni Center for Dry Eye Specialty Care will accept direct referrals for care. In addition, if any current co-managed patient is identified as a patient who would benefit from consultation/management in this service (particularly a patient scheduled for cataract or other surgery), you, the referring physician will be contacted immediately to discuss your clinical management preferences. As many of our referring partners maintain successful dry eye practices, our report to you would be informational. Of course, we would be happy to extend your dry eye care as requested with specialty testing and therapy as you direct.

Please contact us with any questions about the Omni Center for Dry Eye Specialty Care. We welcome your suggestions and look forward to potentiating the visual welfare of your patients.

## The KAMRA Corneal Inlay

Martin L. Fox, MD, FACS

**FDA Approval of KAMRA Clears Path for the Safe Correction of Reading Vision- And Clarity Refractive Services Director Dr. Martin Fox is among the first in the nation to offer it.**

With the FDA approval of the KAMRA corneal inlay in April of 2015, patients desiring to read well at all ranges without glasses now have the opportunity to have these vision issues corrected making use of this safe and reversible technology.

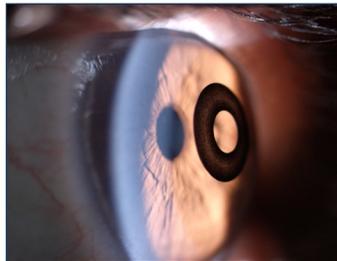
The KAMRA inlay from AcuFocus is a 6-micron thin biocompatible inlay that is implanted in a femtosecond created corneal pocket on the line of sight of the non-dominant eye. The inlay has a central 1.6 mm aperture that has the optical effect of reducing the effective pupil size thus allowing only focused rays of light to enter the eye via small aperture optics. The net effect is improved depth of focus allowing the recipient to see well at both near and intermediate ranges without having a negative effect on distance acuity. Unlike the effect of monovision or "blended vision" in which one eye is biased for near and the other for distance, KAMRA allows for both good distance acuity with great reading vision as well. The inlay continues to provide beneficial effects years after implantation and does not need adjustment. Most importantly the inlay can be removed at any time without having an adverse effect on the cornea.

The best candidates for "KAMRA vision" are those individuals with good uncorrected distance vision who require the use of reading glasses in order to function at near ranges. For individuals with distance vision issues, preparatory or simultaneous LASIK or PRK surgery can bring them into the KAMRA "sweet spot" of approximately -0.50 without significant astigmatism or higher order aberration. Any pre-existing issues with corneal dryness must be assessed and treated before surgery and quality of vision must be assessed as part of the KAMRA workup with our new Acutarget HD technology. The Acutarget quantifies visual quality as a function of measured light scatter. Individuals with a past history of LASIK or cataract surgery with intraocular lens implantation wishing to improve reading vision can also have KAMRA to improve their visual function at near.

The average patient requires one to two months of healing before enjoying the full benefit of the KAMRA inlay, however, most describe an immediate improvement in their ability to see well at near. Vision at all ranges continues to improve through a 4-6 week period of healing.

The age of PresbyVision is upon us! Our KAMRA results have been outstanding and we welcome the opportunity to add this safe and incredibly remarkable technology to the offerings of your practices.

Read more about the KAMRA inlay and Dr. Martin Fox in the 3/29/16 edition of the Wall Street Journal: [http://www.wsj.com/article\\_email/sharper-reading-vision-in-one-eye-1459182185-1MyQjAxMTI2MzI1ODIyNzg1Wj](http://www.wsj.com/article_email/sharper-reading-vision-in-one-eye-1459182185-1MyQjAxMTI2MzI1ODIyNzg1Wj)



### OMNI STAFF

Christopher J. Quinn, O.D., F.A.A.O.  
President

#### SPECIALISTS

#### *Glaucoma & Cataract Surgery*

Douglas K. Grayson, M.D., F.A.C.S.  
Medical Director

Elana Rosenberg, M.D.

Jeffrey Spitzer, M.D.

#### *Retina & Vitreous Surgery*

Burton J. Wisotsky, M.D.

Medical Director - NJ

Danielle Strauss, M.D.

Medical Director - NY

#### *Oculoplastic & Reconstructive Surgery*

James P. Milite, M.D.

Elizabeth Maher, M.D.

#### *Corneal Disease & Refractive Surgery*

Martin L. Fox, M.D., F.A.C.S.

Mitchell Vogel, M.D., F.A.C.S.

#### *Pediatric Ophthalmology, Strabismus & Adult Motility Disorder Surgery*

Joseph D. Napolitano, M.D.

#### *General Ophthalmology*

Aaron Cohen, M.D.

#### *Marketing Director*

Ann Lacey, RN

(732) 510-2545

## OMNI DOCTORS OUTSIDE OF OMNI

Omni's very own Dr. Burton Wisotsky coaches a high school AAU basketball team. His team won the Hoop Heaven High School Varsity Winter Championship for the second year in a row! Here he is pictured with his winning team.



Let Omni Eye Services help ensure your future as the primary eye care provider.



OMNI EYE SERVICES

www.omnieyeservices.com

485 Route 1 South, Bldg. A  
Iselin, New Jersey 08830

## Continuing Education Offerings 2016

### New York Office

7:30 am to 9:30 am

May 6

June 3

### Clarity/TLC, West Orange

7:30 am to 9:30 am

June 6

### New Jersey, Rochelle Park

7:30 am to 9:30 am, Breakfast CE

May 6

June 10

Omni's Annual Spring Symposium  
is May 4th, 2016.

### OMNI OFFICES

#### ISELIN

485 Route 1 South, Bldg. A  
Iselin, NJ 08830

(732) 750-0400 phone  
(732) 602-0749 fax

George W. Veliky, O.D.  
Center Director

#### ROCHELLE PARK

218 Route 17 North  
Rochelle Park, NJ 07662

(201) 368-2444 phone  
(201) 368-0254 fax

Michael Veliky, O.D.  
Center Director

#### NEW YORK

20 East 46th Street, Penthouse  
New York, NY 10017

(212) 353-0030 phone  
(212) 353-0083 fax

#### BROOKLYN

1585 Pitkin Ave.  
Brooklyn, NY 11212

(718) 345-3004 phone  
(718) 495-3655 fax

#### PARSIPPANY

2200 Rte. 10 West, Suite 102  
Parsippany, NJ 07054

(973) 538-7400 phone  
(973) 538-3007 fax

Nazreen Esack, O.D.  
Center Director

#### WEST ORANGE

475 Prospect Avenue  
West Orange, NJ 07052

(973) 325-6734 phone  
(973) 325-6738 fax

Allison LaFata, O.D.  
Center Director

#### CLARITY/TLC

475 Prospect Avenue  
West Orange, NJ 07052

(973) 325-3475 phone  
(973) 325-3478 fax

Shanda Ross, O.D.  
Center Director

#### BROOKLYN

406 15th Street, Suite M1A  
Brooklyn, NY 11215

(718) 832-2020 phone  
(718) 832-3379 fax