

# YOUR DRY EYES MAY BE CAUSED BY MGD

**Meibomian Gland Dysfunction (MGD):**  
A Common Eye Problem You've Never Heard Of

 **LIPIFLOW**<sup>®</sup>  
THERMAL PULSATION



*Not actual patient*

Ask your doctor if getting screened  
for MGD is right for you.

## What Is Meibomian Gland Dysfunction (MGD)?

When the tiny glands in your eyelids don't secrete enough oil into your tears, this is called Meibomian Gland Dysfunction, or MGD.

Your Meibomian glands produce the oily part of the tear film needed to protect the surface of your eye by preventing the evaporation of the watery part of your tears.

When this function is not working well, your eyes may feel dry.

## What Causes MGD?

A number of conditions can lead to changes in the structure or function of the glands, known as MGD. If left untreated, MGD can become progressively worse over time.

### Conditions that can contribute to MGD:



Computer/  
device use



Contact  
lens wear



Reading/  
watching TV



Eye surgery



Environment



Poor blinking

## “Not Enough Tears” vs MGD

Dry Eye Disease is rarely due to a lack of the watery part of your tears. **86% of dry eye patients have MGD.**<sup>1</sup>

## Get Your Meibomian Glands Functioning Properly Before Symptoms Begin

Keeping the function and structure of your Meibomian glands healthy *before* you become symptomatic is key, as MGD progresses over time. The LipiFlow<sup>®</sup> treatment can remove the blockages in the Meibomian glands necessary to allow the oil to flow.

**INDICATIONS:** The LipiFlow<sup>®</sup> Thermal Pulsation System is intended for the application of localized heat and pressure therapy in adult patients with chronic cystic conditions of the eyelids, including meibomian gland dysfunction (MGD), also known as evaporative dry eye or lipid deficiency dry eye.



Allergies



Eye infections  
(such as styes)<sup>2</sup>



Glaucoma and  
chronic eye diseases



Climate

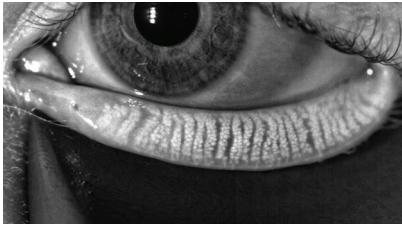


Medications



Makeup that can  
clog glands<sup>3</sup>

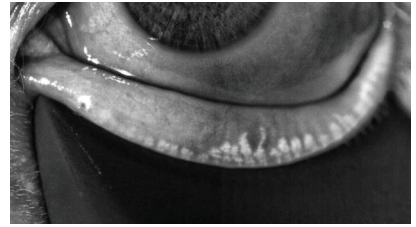
# WHAT DO MEIBOMIAN GLANDS LOOK LIKE?



**NORMAL GLAND STRUCTURE**



**SHORTENED GLANDS & GLAND LOSS**



**SIGNIFICANT GLAND LOSS**

*Images for illustrative purposes only.*

When your glands are healthy, the photo on the far left of this high-definition image shows normal gland structure, with 20-30 glands in the lower eyelid. The other two photos show the stages and eventual progression of Meibomian gland loss.

**MGD is a prevalent, chronic, and progressive disease that becomes worse the longer it goes untreated.**<sup>4-5</sup>

## Talk To Your Doctor About Simple Screening

Screening for Dry Eye Disease is easy and involves a simple questionnaire.

If Dry Eye Disease is diagnosed, a routine evaluation of the Meibomian glands involves a quick photograph of the eyes, called anterior segment imaging (above).

**If you are diagnosed with MGD, there's something you can do about it. Early detection and treatment can minimize its long-term negative impact.**

### INDICATIONS AND IMPORTANT SAFETY INFORMATION for LipiFlow® Thermal Pulsation System

**CAUTION:** Federal law restricts this device to sale by or on the order of a physician.

**CONTRAINDICATIONS:** Do not use the LipiFlow® System in patients with the following conditions. Use of the device in patients with these conditions may cause injury. Safety and effectiveness of the device have not been studied in patients with these conditions: **Ocular surgery within prior 3 months**, including intraocular, oculo-plastic, corneal or refractive surgery procedure. **Ocular injury within prior 3 months.** **Ocular herpes of eye or eyelid within prior 3 months.** **Active ocular infection** (e.g., viral, bacterial, mycobacterial, protozoan, or fungal infection of the cornea, conjunctiva, lacrimal gland, lacrimal sac, or eyelids including a hordeolum or styel). **Active ocular inflammation or history of chronic, recurrent ocular inflammation within prior 3 months** (e.g., retinitis, macular inflammation, choroiditis, uveitis, iritis, scleritis, episcleritis, keratitis). **Eyelid abnormalities that affect lid function** (e.g., entropion, ectropion, tumor, edema, blepharospasm, lagophthalmos, severe trichiasis, severe ptosis). **Ocular surface abnormality that may compromise corneal integrity** (e.g., prior chemical burn, recurrent corneal erosion, corneal epithelial defect, Grade 3 corneal fluorescein staining, or map dot fingerprint dystrophy).

**PRECAUTIONS:** The Activator or Activator II (Disposable) may not fit all eyes, such as eyes with small palpebral fornices. Use of the LipiFlow® System in patients with the following conditions may result in reduced treatment effectiveness because these conditions may cause ocular symptoms unrelated to cystic meibomian glands and require other medical management. Safety and effectiveness of the device have not been studied in patients with these conditions. **Moderate to severe (Grade 2-4) allergic, vernal or giant papillary conjunctivitis.** **Severe (Grade 3 or 4) eyelid inflammation** (e.g., blepharochalasis, staphylococcal blepharitis or seborrheic blepharitis). Patients with severe eyelid inflammation should be treated medically prior to device use. **Systemic disease conditions that cause dry eye** (e.g., Stevens-Johnson syndrome, vitamin A deficiency, rheumatoid arthritis, Wegener's granulomatosis, sarcoidosis, leukemia, Riley-Day syndrome, systemic lupus erythematosus, Sjögren's syndrome). **Taking medications known to cause dryness** (e.g., isotretinoin (Accutane®) and systemic antihistamines). **Esthetic eyelid and eyelash procedures** (e.g., blepharoplasty, lash extensions, eyelid tattooing). In addition, the treatment procedure may loosen previously inserted punctal plugs, which may worsen the patient's dry eye symptoms.

**ADVERSE EFFECTS:** Potential adverse effects that may occur as a result of the procedure include, but are not limited to, the onset or increase in: Eyelid/eye pain requiring discontinuation of the treatment procedure; Eyelid irritation or inflammation (e.g., edema, bruising, blood blister, dermatitis, hordeolum or chalazion); Ocular surface irritation or inflammation (e.g., corneal abrasion, conjunctival edema or conjunctival injection (hyperemia)); and Ocular symptoms (e.g., burning, stinging, tearing, itching, discharge, redness, foreign body sensation, visual disturbance, sensitivity to light). Potential serious adverse events (defined as permanent impairment or damage to a body structure or function or necessitates medical or surgical intervention to preclude permanent impairment or damage to a body structure or function) that are not anticipated because of the device mitigations to prevent occurrence include: Thermal injury to the eyelid or eye, including conjunctiva, cornea or lens; Physical pressure-induced injury to the eyelid; and Ocular surface (corneal) infection.

## The LipiFlow® System: What To Expect From Treatment

After an initial anesthetic eye drop, Meibomian glands are heated and then gently massaged to loosen the oil trapped within the glands. The automated treatment helps clear the gland obstruction and restore function.<sup>6</sup> There are no drugs required for this procedure.

## Ready To Treat The Underlying Cause Of Your Dry Eyes?

Whether you currently have symptoms of MGD or are still without symptoms, the time to talk to your doctor about how your eyes can benefit from the LipiFlow® treatment is now.

**Talk to your doctor**  
[www.dryeyeandmgd.com](http://www.dryeyeandmgd.com)



**A treatment for your eyelids,**  
this comfortable and effective  
lid massage is typically done  
while resting in a chair in your  
doctor's office.

**LIPIFLOW®**  
THERMAL PULSATION

**ATTENTION:** Reference the *LipiFlow® Thermal Pulsation System Instructions for Use* for a complete listing of indications, warnings, and precautions.

### REFERENCES

1. Lemp MA, Crews LA, Bron AJ, Foulks GN, Sullivan BD. Distribution of aqueous-deficient and evaporative dry eye in a clinic-based patient cohort: a retrospective study. *Cornea*. 2012;31(5):472-478.
2. Duke University website. Immune response likely culprit in eyelid gland condition that causes dry eye. Found at: <https://dukeeyecenter.duke.edu/news-events/immune-response-likely-culprit-eyelid-gland-condition-causes-dry-eye>, July 2018. Accessed December 10, 2019.
3. American Optometric Association, Paraoptometric Resource Center. CPC Submission, T Petrosyan. Cosmetics and the eye: how your beauty products could be harming your eyes. Found at: <https://www.aoa.org/Documents/CPC%20SUBMISSION%20Cosmetics%20and%20the%20Eye%20How%20Your%20Beauty%20Products%20Could%20Be%20Harming%20Your%20Eyes.pdf>, 2018. Accessed December 10, 2019.
4. Nichols KK, Hantlon SD, Nichols JJ. A murine model for characterizing glandular changes in obstructive meibomian gland dysfunction. *ARVO*. 2014. Abstract #13-A0002.
5. Schaumberg DA, Nichols JJ, Papas EB, et al. The international workshop on meibomian gland dysfunction: report of the subcommittee on the epidemiology of, and associated risk factors for, MGD. *Invest Ophthalmol Vis Sci*. 2011;3:52(4):1994-2005.
6. Blackie CA, Carlson AN, Korb, DR. Treatment for meibomian gland dysfunction and dry eye symptoms with a single-dose vectored thermal pulsation: a review. *Curr Opin Ophthalmol*. 2015;26(4):306-13.
7. K161357, 510K Summary.
8. LipiFlow Thermal Pulsation System Instructions For Use.
9. Epitropoulos A, Hura A. Exploring the reversibility of meibomian gland atrophy. *Ophthalmol Times*. 2019;(4):1-5. (<https://www.opthalmologytimes.com/article/exploring-reversibility-meibomian-gland-atrophy>)
10. Data on file.

The third party trademarks used herein are the intellectual property of their respective owners.

All other trademarks are the intellectual property of their respective owners.

©2020 Johnson & Johnson Surgical Vision, Inc. PP2020TS4022

# MGD? Talk To Your Doctor About LipiFlow®

- ✓ FDA-cleared device provides inner and outer lid therapy<sup>7</sup>
- ✓ After initial anesthetic drops, no drugs required for LipiFlow® treatment
- ✓ Efficient, in-office treatment<sup>8</sup>
- ✓ Long-lasting results—many can see the continued benefit up to 12 months<sup>9</sup>
- ✓ No pain and/or discomfort reported for the vast majority of patients
- ✓ 400,000 treatments worldwide—and growing<sup>10</sup>

## What to expect after treatment:

Results with LipiFlow® can be experienced 6-8 weeks after treatment and may vary depending on the level of severity of MGD.<sup>6</sup> Because LipiFlow® treats MGD, Dry Eye Disease symptoms are not expected to fully resolve with LipiFlow®. Dry Eye Disease is a multifactorial condition and may require additional treatment. Be sure to talk to your doctor about what's right for you.

---

**Talk to your doctor**  
**[www.dryeyeandmgd.com](http://www.dryeyeandmgd.com)**

---