

DEMODEX BLEPHARITIS:

A PREVALENT BUT COMMONLY MISSED LID MARGIN DISEASE THAT IMPACTS MILLIONS

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Demodex blepharitis is a common eyelid margin disease affecting approximately 25 million eye care patients in the U.S.¹⁻² Untreated, *Demodex* blepharitis can lead to symptoms such as ocular surface inflammation and may impact daily activities. Despite its high prevalence, awareness and knowledge of *Demodex* blepharitis remains low. Fortunately, optometrists already have the tools necessary to diagnose it if they know what to look for.

WHAT IS DEMODEX BLEPHARITIS?

Demodex blepharitis is caused by an infestation of *Demodex* mites, the most common ectoparasite found on humans.³ When present in small numbers, the mites go largely unnoticed. However, when an infestation is present, common symptoms reported include red, itchy, or irritated eyelids, missing or misdirected eyelashes, and inflammation of the conjunctiva and lid margin.³

Demodex blepharitis is diagnosed by the presence of collarettes, which are cylindrical, waxy debris composed of mite waste found at the base of the eyelashes. Collarettes are the pathognomonic sign of *Demodex* blepharitis and studies show that 100% of patients with collarettes have *Demodex* mites.⁴⁻⁵



Collarettes are an easily observed clinical finding for patients suffering from *Demodex* blepharitis. Simply have your patient look down to see this wax-like build up at the base of the eyelash.

Image from Leslie O'Dell, OD.

WHO HAS DEMODEX BLEPHARITIS?

While the disease can affect individuals of all ages, *Demodex* blepharitis prevalence increases with age, with more than 80% of people who are over age 60 and 100% of those over age 70 presenting with the disease.⁶

Demodex blepharitis is often overlooked or misdiagnosed because it can present with symptoms similar to common ocular conditions, such as dry eye disease or allergies. In a retrospective study by 7 investigators at 6 eye care clinics, 1,032 case records of consecutive patients who underwent a slit-lamp examination, regardless of chief complaint, were reviewed for *Demodex* blepharitis, as identified by the presence of collarettes. The study found that there was an overlap between *Demodex* blepharitis and dry eye patients, and nearly 60% (n = 349/593) of dry eye patients had *Demodex* blepharitis. Moreover, the same study found that 56% (n = 245/440) of cataract patients and 51% (n = 44/87) of patients wearing contact lenses had *Demodex* blepharitis.¹

DEMODEX BLEPHARITIS: IMPACT ON PATIENTS

Demodex mites can contribute to blepharitis in several ways, including acting as a vector for carrying bacteria, inducing hypersensitivity and inflammation, ocular surface irritation, keratitis, and eyelash distention and loss caused by abrasions from *Demodex* claws. *Demodex* mites can also alter meibum composition and cause ocular surface and lid margin inflammation from the production of cytokines, chemokines, and other inflammatory biomarkers.³⁻⁷

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Additionally, in advanced stages of the disease and when left untreated, *Demodex* blepharitis can lead to symptoms including redness, chronic inflammation of the cornea, conjunctiva, and lid margin, and recurrent chalazions.³

Real-world data from a prospective, multicenter, observational study of 311 patients that evaluated the impact of *Demodex* blepharitis found that 80% of patients surveyed said that the disease negatively impacted their daily activities. The most cited issues included feeling conscious of their eyes all day (47%), difficulty driving at night (47%), additional time needed for their daily hygiene routines (30%), feeling self-conscious about the negative appearance of eyes/eyelids (23%), and difficulties wearing makeup for women (34%, n=63/185).⁸

DIAGNOSIS IS EASY WHEN PATIENTS LOOK DOWN

The retrospective study of 1,032 case records of consecutive patients who underwent a slit-lamp examination, regardless of chief complaint and were reviewed for *Demodex* blepharitis, showed that about 58% of eye care patients may have *Demodex* blepharitis.¹ Additionally, real-world data from the prospective, multicenter, observational study of 311 patients showed that over half of patients (51%) had been experiencing signs and symptoms of blepharitis for at least four years, but most (58%) had never been diagnosed with blepharitis.⁸

In my practice, I see several patients on a weekly basis that present with collarettes. They predominantly complain of redness, morning symptoms of burning or tearing, and itching of their eyelid margins. Many have gone to several doctors before coming to me.

And while some patients may not receive an accurate diagnosis, identifying *Demodex* blepharitis is simple – if you know where to look.

Detecting the presence of collarettes can be done through a standard slit-lamp exam. Eye care professionals should instruct their patients to look down while they evaluate the upper lid margin for the presence of collarettes. Collarettes are not always visible and often missed when a patient is looking straight ahead, but when patients are directed to look down, clinicians can get a clearer view of any collarettes that might be present on the base of the lashes.¹

WHY EARLY DIAGNOSIS AND SCREENING OF DEMODEX BLEPHARITIS IS IMPORTANT

A main barrier to diagnosing and managing *Demodex* blepharitis is the lack of awareness about the disease among eye care professionals.

A novel disease awareness campaign, “[Look at the Lids](#),” was recently launched, designed specifically to help bridge the education gap and encourage eye care professionals to screen every patient for *Demodex* blepharitis.

Based on the research and data available, there is significant opportunity for providers to screen for and diagnose *Demodex* blepharitis to identify this underdiagnosed disease.

References:

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