

EDUCATIONAL MOMENTS

INSPIRING CARE



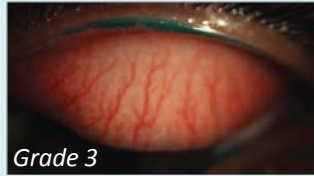
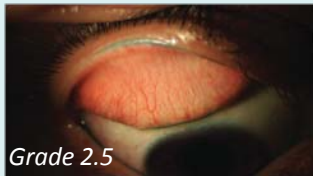
VISION CARE INSTITUTE

How to manage patients with Lid Wiper Epitheliopathy (LWE)

What You Need to Know

Slit Lamp Viewing: (1) Diffuse beam (2) Medium magnification (16-18x) (3) Fluorescein with cobalt blue filter followed by lissamine green (or rose bengal) with white light (second application of both after 5 min)

Grading: Mean of grade for staining length (mm) and grade for % average sagittal staining width



Grade 0: <2mm horizontal length of staining, <25% average sagittal width of staining

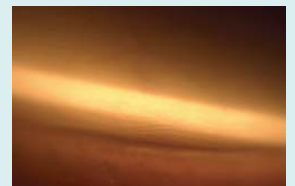
Grade 1: 2-4mm horizontal length of staining, 25-50% average sagittal width of staining

Grade 2: 5-9mm horizontal length of staining, 50-75% average sagittal width of staining

Grade 3: >9mm horizontal length of staining, >75% average sagittal width of staining

- Incidence:**
- 80% of CL wearers (53% ≥ grade 2) with dry eye symptoms and 13% of asymptomatic wearers
 - 88% of non-CL wearers with dry eye symptoms (32% ≥ grade 2) and 16% of asymptomatic non-wearers

- Can occur in absence of positive dry eye test findings. Correlates with lid parallel conjunctival folds (right), tear stability and volume, mucin quantity, bulbar and limbal hyperaemia and dry eye symptoms



- Aetiology:**
- Alteration in epithelium of advancing lid margin due to friction during lid movement across the lens surface

- In dry eye, tear film thickness insufficient to separate ocular surface and lid wiper. Other causes include blinking disorders, lid and ocular surface abnormalities

- Symptoms:**
- Increased lens awareness
 - Scratchiness on blinking
 - Reduced wearing time

- Signs:**
- Characteristic staining at upper lid margin (although can affect both lids)

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What You Need to Recommend Your Patients

- Recommendations:**
- Manage \geq grade 2 or if symptoms
 - Refit with more lubricious lens surface (lower coefficient of friction)
 - Change lens type (RGP to silicone hydrogel or hydrogel) or wearing schedule (increase replacement frequency)
 - Maintain good lens cleaning including rub and rinse step
 - Manage any tear quality issues
 - Rewetting drops

Prognosis: Generally good resolution of symptoms with appropriate management

Differential Diagnosis:



Staining associated with Marx line (left) and true lid wiper staining

How to Find Out More

- [CLICK HERE FOR FURTHER READING/REFERENCES](#)
- [CLICK HERE FOR OUR GUIDE TO ASSESSING THE TEAR FILM](#)
- [CLICK HERE FOR A REFRESHER ON SLIT LAMP TECHNIQUES](#)

This series is adapted from A Handbook of Contact Lens Management (3d Edition) published by Johnson & Johnson Vision Care Institute.

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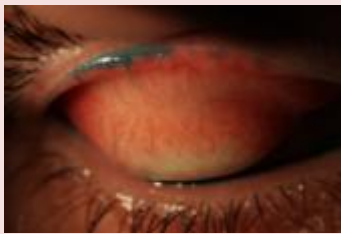


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How to manage patients with Lid Wiper Epitheliopathy (LWE)

Patient Case Study

When you have read this guide and our recommended resources, why not take part in Johnson & Johnson Vision Care Institute self-assessment quiz to test your clinical, diagnostic and management skills. Choose only one answer to each question then check the answers at the foot of the page to see whether it's correct. Good luck!



***Patient AS** is 36 years old and works long, irregular hours in a call centre. He has worn monthly replacement silicone hydrogel contact lenses for 7 years. Six months after his aftercare appointment he returns complaining that his lenses are 'scratchy' on blinking and his maximum comfortable wearing time is 6 hours.*

Questions:

1 What is the best staining technique for examining this patient's lid margin?

- A. Fluorescein followed by lissamine green
- B. Lissamine green only
- C. Fluorescein only
- D. Rose bengal only

2 What grade would you give to his LWE?

- A. Grade 0
- B. Grade 1
- C. Grade 2
- D. Grade 3

3 What proportion of contact lens wearers with dry eye symptoms show LWE on staining?

- A. 1%
- B. 8%
- C. 80%
- D. 100%

4 Which of the following management options could you consider?

- A. Discontinue lens wear
- B. Continue with current lenses and reduce wearing time
- C. Refit with RGPS
- D. Switch to silicone hydrogel lenses with a more lubricious lens surface and shorter replacement schedule

*1 Correct answer is **A**. To examine the lid wiper area use fluorescein and cobalt blue illumination then lissamine green (right) and white light*



*2 Correct answer is **C**. Grade 2. About 50-75% of the sagittal width of the lid wiper shows staining so this would be a Grade 2 LWE*

*3 Correct answer is **C**. LWE is a very common finding in contact lens wearers experiencing dryness and also in non-wearers with dry eye symptoms*

*4 Correct answer is **D**. LWE grade 2 or over, or with symptoms, needs to be managed. Refit with lenses of a lower coefficient of friction and shorter replacement*