



# EyeMatters

A PRACTICE BUILDING RESOURCE



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Vol. 7 - August 2006

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## Bausch & Lomb Vision Care

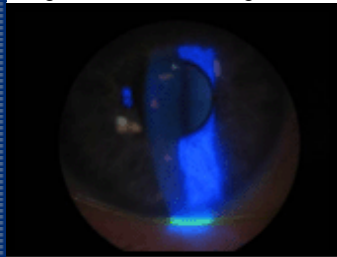
### Recognizing the Clinical Realities of Corneal Staining

#### Understanding & Recognizing Ocular Surface Staining

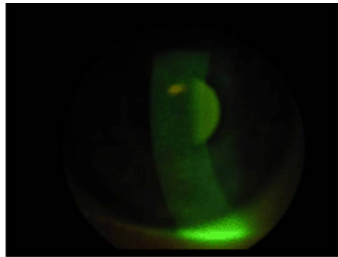
Ocular surface staining. When do we see it? What does the staining indicate? How do we grade and record the staining? What degree of staining is clinically significant? In the next three editions of the EyeMatters newsletter, we will answer these questions and more about corneal fluorescein staining. Our intention is to clear up existing confusion on the issue while reviewing the way we recognize, grade and evaluate corneal staining in our patients.

Corneal staining occurs occasionally in practically everyone – even non-contact lens wearers. If there is another person nearby, it is likely that one of you would show at least a trace amount of corneal staining, indicating nothing more than normal epithelial cell turnover. This subtle staining is best observed through a yellow filter that provides an enhanced view, giving you a better chance of seeing common, low-grade staining (Image 1). This is a highly recommended technique.

Image 1 - Common low grade staining



Without Wratten Filter



With Wratten Filter

### Recognizing the Clinical Realities of Corneal Staining

Of course, staining at levels higher than this lower-grade “physiologic” amount may indicate a disrupted or compromised corneal surface from a variety of challenges such as dry eye, inflammation, infection or mechanical causes.

However, the presence of symptoms should not drive your decision to look for staining, since there is very poor correlation between symptoms and the presence of staining. In fact, more than half of symptom-free daily disposable soft contact lens wearing patients and almost 8 out of 10 extended wear patients are expected to demonstrate at least some degree of low-level staining. So it is important to look routinely at all patients, even if there are no symptoms.

The more routinely you check for staining in practice, the better appreciation you will have for how common that normal, low-grade staining is when you DO look for and see it; AND in doing so you will better prepare yourself to differentiate situations of “normal, expected” from those that are “abnormal, needing management.”

On the occasions that moderate or severe staining is seen with hydrogel lens wearers, three primary factors have been associated with such cases:

1. noncompliance with lens care systems, regardless of brand,
2. conventional yearly lens replacement, and
3. lens powers greater than three diopters.

And what about lens care systems and corneal staining? Staining is found in association with virtually all lens care products, including peroxide-based systems, and the “typical” low-grade staining reported with multi-purpose solution use is virtually the same as that seen so commonly in non-lens wearing individuals.

Commonly, studies of lens care products show that on average slit lamp findings, including corneal staining, remain averaged around baseline values with the vast majority of all findings graded 0 or 1 – no more than “trace”. Keep this in mind when evaluating patients, and particularly when you are presented with studies that show statistical differences that are not clinically significant.



#### Bausch & Lomb ReNu® MultiPlus multi-purpose solution

Rely on your own professional experience as validation that ReNu MultiPlus multi-purpose solution is a safe and highly effective product. Look at your patients' eyes, and see for yourself why it has had such a long history of patient and practitioner satisfaction. By understanding what is truly significant, you will be able to provide the best possible care for your patients.

[Click here](#) to see Dr. Christopher Snyder's video presentation on corneal staining and additional references.

[ADDITIONAL PRODUCT INFORMATION](#)

We will address methods for evaluating corneal staining, and interpreting corneal staining data, in our next edition of [Eye Matters](#).

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Primary reference: Snyder C. Solution interaction with ocular surface: The significance in making the grade. Clin. & Refractive Optometry 2005

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