not a dry eye in the house

New research shows that cosmetics may cause irritation that compromises our eyes’ health. Jeepers! By Shirley Venice

The grittiness and stinging in her eyes refused to abate. Mary Haskins knew she could no longer bat away her vision concerns. Haskins, then in her mid-thirties, noticed the burning sensation was becoming more frequent. Her doctor assured her that her vision was normal, and encouraged her to obtain some over-the-counter eye drops. Still, the discomfort continued. “I sought out several more eye specialists who could not make an accurate diagnosis,” Haskins said. “I also tried every over-the-counter eye drop available, with no relief.” Finally, a friend referred her to a specialist, and at long last Haskins was correctly diagnosed as having “dry eye.”

For millions of people, dry eye is an uncomfortable and painful problem. According to Dr. Benjamin Sullivan, chief scientific officer at TearLab Corp., a research and development company for ocular technologies, dry eye is one of the most under-diagnosed eye diseases in the country,
Medical Optics

What’s in a Tear?

Tears are made up of three different layers: oil, water, and mucus. Each protects the eye in its own way, while abnormalities and special preservatives offer resistance to infection. The inner mucus layer—closest to the eye—is relatively sticky, to keep the tears adhering to the eye. The watery middle layer is protected by the outer oily layer—the most exterior layer facing the air—which helps prevent tears from evaporating too quickly before the next blink. If tears evaporate too quickly or fail to spread evenly over the eye surface due to possible deficiencies with any of the three tear layers, then dry eye symptoms may develop.

The potential causes include:

- **Inflammation**
- **Tear instability**
- **Increased tear evaporation**
- **Mucous membrane plugging**
- **Decreased lacrimal gland function**

With dryness comes discomfort, like soreness, dryness, burning, stinging, and foreign body sensations.

Recent research has shown that the most accurate method for diagnosing dry eye is an objective tear break-up test. The test can determine whether the tears are evaporating within a few seconds, whether the tear rate is slower than normal, or whether the tear film is more prone to evaporation.

### Management Strategies

1. **Artificial Tears**
   - Use artificial tears to replace the natural tear film. The FDA has approved 11 different brands of artificial tears that are available over-the-counter or by prescription.

2. **Omega 3 Fatty Acids**
   - Studies have suggested that omega 3 fatty acids may help reduce inflammation and improve tear quality.

3. **Hyperosmolar Solutions**
   - These solutions can help reduce tear film instability and discomfort.

4. **Lipicid Therapy**
   - This therapy can help improve tear film stability and reduce discomfort.

5. **Tear Duct Plugs**
   - These plugs can help slow the flow of tears from the eye and prevent them from evaporating too quickly.

6. **Eyelid Treatments**
   - Eyelid scrubs or treatments can help remove debris and improve tear film performance.

7. **Surgical Procedures**
   - Some procedures, such as MGD (meibomian gland dysfunction) treatment, can help improve tear film stability and reduce discomfort.

### Additional Considerations

- **Avoiding Irritants**
- **Reducing Stress**
- **Eating a Healthy Diet**
- **Regular Exercise**

### Conclusion

Dry eye is a common and chronic condition that affects millions of people worldwide. The symptoms can be uncomfortable and can impact quality of life. If you are experiencing dry eye symptoms, it is important to consult an eye care professional for an accurate diagnosis and effective treatment.

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