

# Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

## Summary: Report of the Definition and Classification Subcommittee

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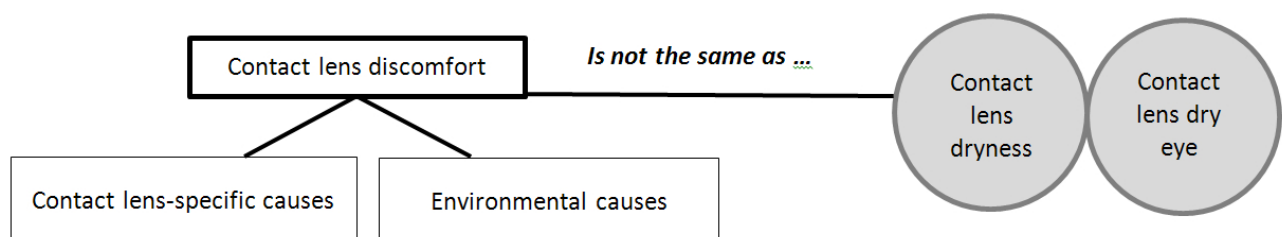
*Nichols KK, Redfern RL, Jacob JT, Nelson JD, Fonn D, Forstot SL, Huang J, Holden BA, Nichols JJ. The TFOS International Workshop on Contact Lens Discomfort: Report of the Definition and Classification Subcommittee. Investigative Ophthalmology and Vision Science 2013 54:TFOS14-TFOS19.*

Acknowledging that there is a poor understanding of contact lens discomfort, the definition and classification committee defined it as,

... a condition characterised by episodic or persistent adverse ocular sensations related to lens wear, either with or without visual disturbance, resulting from reduced compatibility between the contact lens and the ocular environment, which can lead to decreased wearing time and discontinuation of contact lens wear.

### Contact lens discomfort is not the same as contact lens dryness or contact lens dry eye

The committee differentiated “contact lens discomfort” from “contact lens-related dryness” and “contact lens dry eye”, both of which refer to contact lens wearers with pre-existing dry eye that may or may not be exacerbated by lens wear. Contact lens discomfort occurs only during lens wear, and can stem from two either contact lens-specific or environmental causes. See Figure 1 for an illustration of this differentiation.



**Figure 1:** Contact lens discomfort vs. contact lens dryness and contact lens dry eye Contact lens-specific causes of contact lens discomfort include lens materials (e.g. lubricity), lens design (e.g. edge), lens fit and wear (e.g. modality) and lens care (e.g. solution chemistry).

Environmental causes include inherent patient factors (e.g. age), modifiable patient factors (e.g. medication compliance), ocular environment (e.g. tear stability) and external environment (e.g. humidity).

Contact lens discomfort is identified after a neophyte has adapted to the initial sensations related to contact lens wear. With contact lens discomfort, any adverse ocular sensations are alleviated with lens removal. Physiological signs related to contact lens discomfort may not be apparent.

### **Discontinuation, dropout or intolerance?**

The committee noted that the terms contact lens 'discontinuation', 'dropout' and 'intolerance' have been used synonymously to describe the cessation of lens wear, but that they should be differentiated in the following way:

- Discontinuation is the process of temporary or permanent cessation of lens wear;
- Dropout should be reserved for the sustained discontinuation of lens wear;
- Intolerance describes the physiological process by which a patient moves toward discontinuation, although it may also predispose a patient to contact lens discomfort.

Finally, the report noted that the progression of contact lens discomfort can be summarised as five-step process, from struggling and lens awareness, to reduced wearing time, to temporary or permanent discontinuation of contact lens wear. Contact lens drop out refers to a sustained period of discontinuation of lens wear.

***For further details, please refer to The TFOS International Workshop on Contact Lens Discomfort: Report of the Definition and Classification Subcommittee.***