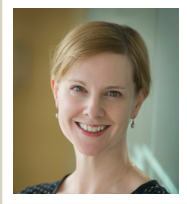


Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

Summary: Definition and classification report

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Craig JP, Nichols KK, Akpek EK, et al. TFOS DEWS II Definition and Classification Report. *Ocul Surf.* 2017;15: 276-83.

The first definition of dry eye was published in 1995 and included reference to tear quality and quantity.¹ The Tear Film & Ocular Surface Society's (TFOS) first dry eye work shop (DEWS) was published in 2007, with a definition centred on the clinical effects and associated signs of dry eye disease.² This reflected the significant advances in evidence, diagnostics and therapeutic approaches that had occurred in the intervening 12 years.² Fast forward to 2017, and the report of the TFOS DEWS II group has been published. The definition and classification subcommittee was tasked with updating the original DEWS definition and creating a contemporary classification system for dry eye disease.

Revised definition of dry eye disease

The committee was focused on producing a definition that could be broadly interpreted to allow for future flexibility in research on dry eye disease.³ The new definition is as follows:

Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.

It is useful to understand the rationale for including specific words and phrases in the definition:

PHRASE	UPDATE	RATIONALE
"Multifactorial"	No	Reflects the fact that dry eye disease is complex and cannot be characterized by a single process, sign or symptom.
"Disease"	No	Acknowledges that dry eye is a disease.
"Ocular surface"	No	For the DEWS group definition, the ocular surface comprises the cornea, conjunctiva, eyelids, eyelashes, tear film, lacrimal glands and meibomian glands.
"Homeostasis of the tear film"	Yes	A new concept added to capture changes to both the tear film and ocular surface that can occur in dry eye disease. The definition and classification committee emphasizes the importance of this concept by saying, ' <i>disruption of homeostasis is considered to be the unifying characteristic that describes the fundamental process in the development of dry eye disease.</i> '

Summary: Definition and classification report

PHRASE	UPDATE	RATIONALE
“Symptoms”	Yes	Where ‘discomfort’ and ‘visual disturbance’ were mentioned in the 2007 definition, the 2017 version includes just the word ‘symptoms’ to cover a broad range of possible symptoms including discomfort and visual disturbance.
“Etiological role”	No	The concept of a pathway being involved, but without restriction to specific diagnostic findings or outcome measures.

Revised classification for dry eye disease

The purpose of classification aids in both diagnosis and management of dry eye disease. The classification system proposed by the TFOS DEWS group in 2007 was felt to have two main issues. First, although not intended to do so, the categories of evaporative and aqueous deficient dry eye were interpreted by many clinicians as being mutually exclusive. Second, evidence generated since 2007 suggested that the sub-classification of conditions was no longer accurate in all cases.

Classification of dry eye disease (used with permission from the TFOS DEWS II Definition and Classification report³)

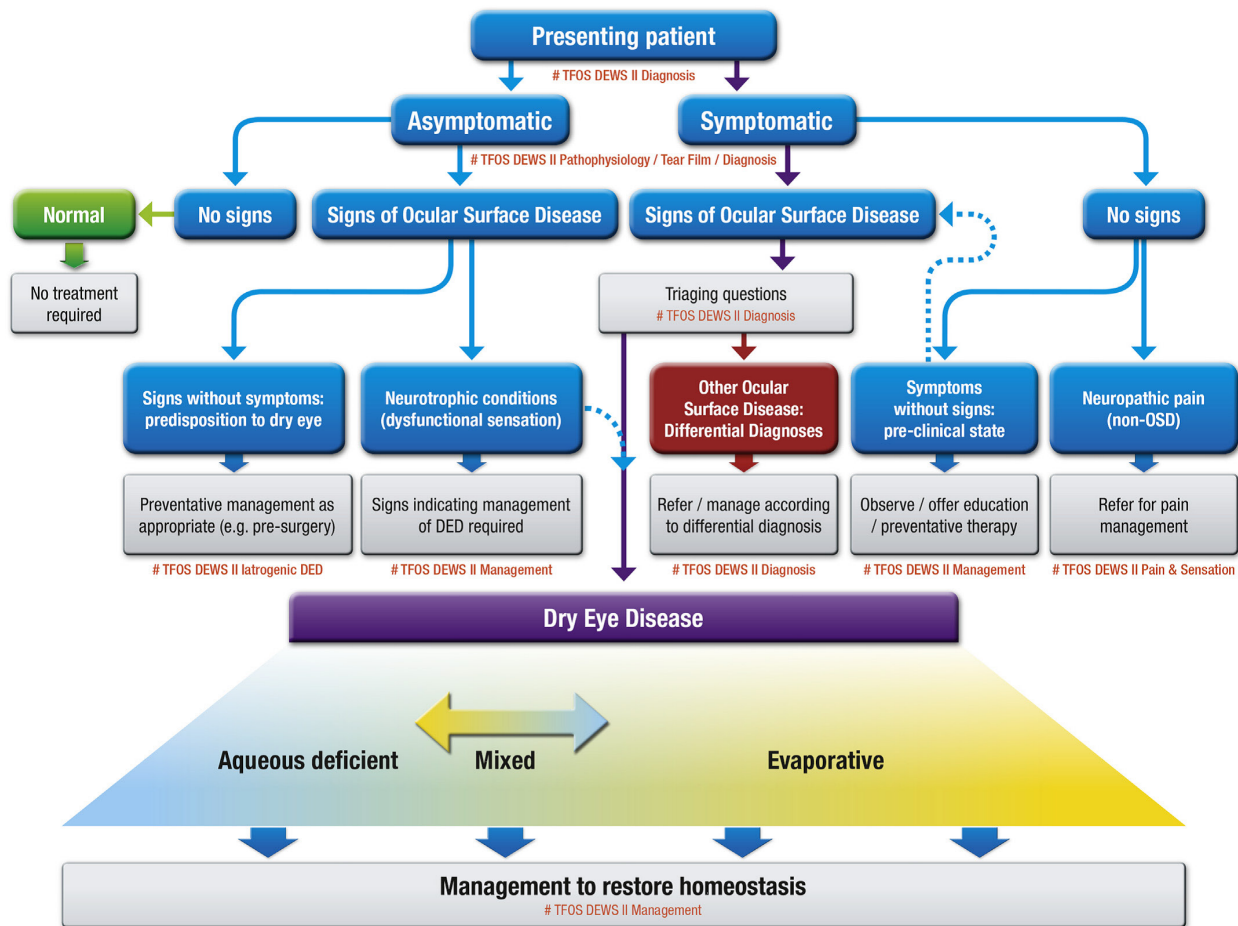


Figure 1: Classification of dry eye disease³

The new classification scheme is shown above. It contains an element of triage to aid diagnosis, which leads to

consideration of the various etiologies and an appropriate management plan. For sub-classification of dry eye disease, refer to the TFOS DEWS II pathophysiology report.⁴

A new element of the classification is the inclusion of additional scenarios, for example where symptoms exist without signs, or the reverse situation, where an asymptomatic patient is found to have signs. The new classification contains pathways to address both variations.

The bottom layer of the diagram represents the etiological classification of dry eye and is designed to show clearly that the 'type' of dry eye disease can be categorised on a continuum between evaporative and aqueous deficient dry eye. A greater proportion of the bottom layer is represented by evaporative dry eye to reflect the preponderance of this condition over aqueous deficient dry eye. Recognising that the types of dry eye are not mutually exclusive is also important when it comes to managing the condition; for most patients elements of both types should be considered.

REFERENCES

1. Lemp MA. Report of the National Eye Institute/Industry workshop on Clinical Trials in Dry Eyes. *Ciao J.* 1995;21: 221-32.
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4. Bron AJ, de Paiva CS, Chauhan SK, et al. TFOS DEWS II pathophysiology report. *Ocul Surf.* 2017;15: 438-510.