

WHAT IS DRY EYE DISEASE (DED)?

DED is complex and potentially debilitating and results in:¹

- ◆ Tear film instability
- ◆ Hyperosmolarity
- ◆ Inflammation of the ocular surface
- ◆ Visual disturbance

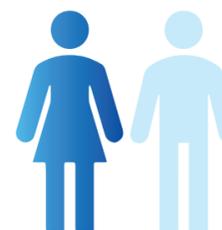
Dry eye has been linked to multiple risk factors:²

- ◆ Biological or genetic (hormonal changes like menopause)
- ◆ Lifestyle (screens, contact lenses, diet, weather, pollution, mask wearing)
- ◆ Medical causes or medication side effect (suffering from diabetes, vitamin deficiency, allergies, psoriasis)

Stress to the surface of the eye is thought to be a key trigger³

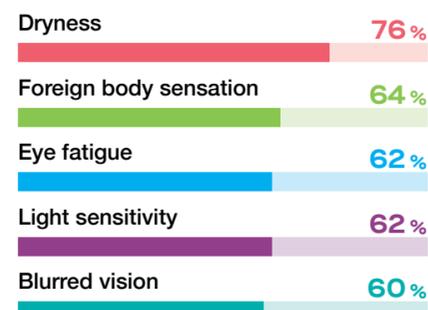
Dry eye disease is a common condition characterised by itchy, burning, sandy, red, irritated eyes and can affect visual performance^{2,4}

References: 1. Baudouin C, et al. *Ocul Surf* 2013;11:246–258. 2. Tong L, et al. *Asia Pac J Ophthalmol* 2021;10:530–541; 3. Messmer EM. *Dtsch Arztebl Int* 2015;112(5):71–81; 4. Papas EB. *Ophthalmic Physiol Opt* 2021;41(6):1254–1266; 5. Mukamal R. American Academy of Ophthalmology 2021. Available from: <https://www.aao.org/eye-health/tips-prevention/fix-dry-eye-treatment-eyedrops>.



1 IN 11 PEOPLE WORLDWIDE MAY BE SUFFERING FROM DED⁴

The top symptoms experienced by patients include:⁵



WHAT IS THE IMPACT OF THE SYMPTOMS OF DED ON PATIENTS?

A poll of 751 patients found that 97% felt frustrated by the impact of dry eye symptoms on their lives¹ and they can be locked into a cycle of frustration:²

- ◆ 1. Increased screen time, higher stress levels or lack of sleep²
- ◆ 2. Leads to tiredness and irritability²
- ◆ 3. Resulting in more severe and frequent symptoms of DED leading to repeating the cycle²

DED can negatively impact quality of life:³⁻⁵

Difficulties with driving, reading, watching TV and wearing contact lenses^{3,4}



Negative impact on psychological health including depression and anxiety^{3,4}



Loss of productivity and quality of work³

THERE IS AN UNMET NEED FOR RELIEF FROM DED SYMPTOMS AND A POLL (N=751) SHOWED >80% OF PATIENTS WISHED THERE WAS A MORE EFFECTIVE DED TREATMENT¹

References: 1. Karpecki P. *Contact Lens Spectrum*; July 2009; 2 The impact of COVID-19 on people with dry eye disease: [https://www.santen.eu/files/default/2020-10/The impact of COVID-19 on people with DED report.pdf](https://www.santen.eu/files/default/2020-10/The%20impact%20of%20COVID-19%20on%20people%20with%20DED%20report.pdf); 3. Cook N, et al. *Ophthalmol Ther* 2019;8:407–420; 4. McDonald M, et al. *Ocul Surf* 2016;14(2):144–167; 5. Stapleton F, et al. *Ocul Surf* 2017;15(3):334–365.

HOW CAN YOU TREAT SYMPTOMS OF DED?

LUBRICATING EYEDROPS ARE A MAINSTAY OF DED MANAGEMENT

Small randomised studies have shown that artificial tears are able to:¹

- ◆ Increase tear film stability
- ◆ Reduce ocular surface stress
- ◆ Improve contrast sensitivity and the optical quality of the surface
- ◆ Are able to improve quality of life

Artificial tears and lubricating eyedrops commonly contain:

- ◆ Sodium hyaluronate¹⁻³
- ◆ Antioxidants^{2,3}
- ◆ Liposomes²
- ◆ Newer osmoprotectants²

Preparations should try and avoid the use of preservatives such as benzalkonium chloride, if there are symptoms of dry eye^{1,3}

References: 1. Messmer EM. *Dtsch Arztebl Int* 2015;112(5):71–81; 2. Buckley RJ. *Eye (Lond)* 2018;32(2):200–203; 3. Jones L, et al. *Ocul Surf* 2017;15(3):575–628.

