

# THE PSYCHOLOGY OF DRY EYE

The emotional impact of this disease can be just as burdensome as the physical.

BY LUIGI MARINO, MD, PhD



Dry eye disease (DED) is an unpleasant sensory and emotional experience for patients, associated with damage to the ocular surface. Burdened with discomfort and fear, patients affected by this condition often tell their eye care providers, “I cannot see; I will never see again.” No matter how sensational they may seem, these comments cannot be

dismissed, as DED affects not only patients’ physical health but also their psychological well-being.

The symptoms of DED often prompt changes in patients’ lifestyles, sometimes leading to an inferior quality of life. DED may affect patients’ social lives, lead to an inability to work efficiently, and reduce interest in activities. It may also contribute to changes in personality. In some cases, signs of depression may be seen.

Given the gravity of DED’s impact on patients, it is important that clinicians strive to recognize both the physical and emotional aspects of this disease. This article details several key tenets of managing DED and highlights pearls for minimizing its potentially deleterious psychological effects.

## FUNDAMENTAL 1 UNDERSTAND THE PSYCHOLOGICAL EFFECTS OF DED

Corneal injuries are correlated with strong pain, which can cause photophobia. Subsequently, blepharospasm can occur. These physical experiences often invoke feelings of anxiety in patients with DED, as they may grow afraid to open their eyes, to go out, to travel, and to work on the computer—to name a few.

In addition to these feelings of anxiety, DED can also contribute to depression. Often, clinicians can be guilty of a lack of recognition of the disease and acknowledgement of the legitimacy of patients’ complaints. In turn, patients with DED may be labeled as crazy or hysterical. However, as we know, coping with any type of chronic pain can lead to deterioration of patients’ social and professional lives and cause psychological instability.

It is important for ophthalmologists to acknowledge the role that DED can play in patients’ mental health.

## FUNDAMENTAL 2 PERFORM CONVENTIONAL AND UNCONVENTIONAL DIAGNOSTIC ASSESSMENTS

Clinicians must assess DED in both conventional and unconventional ways. Conventional assessments for DED diagnosis include taking an accurate history, reviewing the results of a detailed patient questionnaire, and performing slit-lamp examination and other diagnostic tests.

Unconventional measures of DED are equally important. These can include assessments of the patient’s pain, including its location, intensity, frequency, and associated disturbances; contributing outside factors, such as diminished quality of life; and psychological aspects.

In follow-up evaluations, clinicians should pay attention to the following: changes in pain intensity; relief from symptoms; compliance with therapy; the impact of these factors on mood, cognitive ability, work, and social and relational activities; and any side effects of therapy.

## FUNDAMENTAL 3 CONDUCT A PSYCHOLOGICAL EVALUATION

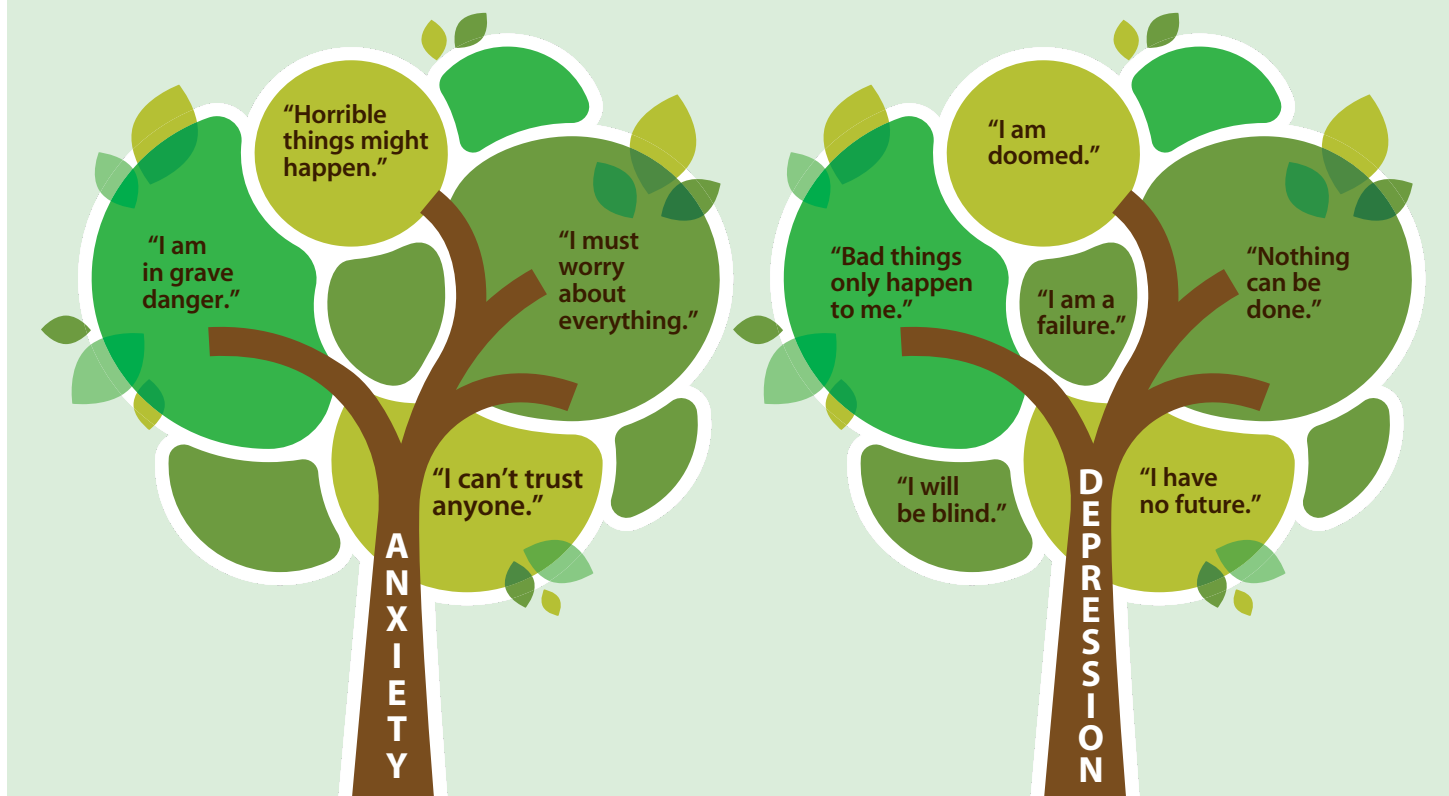
Pay attention to how patients react to receiving a diagnosis of DED, making note of their thoughts,



## AT A GLANCE

- DED is an unpleasant sensory and emotional experience.
- In addition to using conventional diagnostic methods for DED, physicians should assess patients’ pain and quality of life.
- Fostering communication with patients and allowing them to express their emotions may increase their tolerance of DED.
- Collaboration among the patient, his or her family members, and the treating physicians can help patients feel heard and cared for, making them more likely to adhere to treatment.

# NEGATIVE THOUGHTS IN PATIENTS WITH DED



feelings, and behaviors. Be mindful of whether patients truly understand their diagnosis and whether they think they are being well treated for their pathology.

Ask patients whether they experience pain or discomfort and, if so, how frequently. Evaluate whether they are sufficiently occupied with outside activities. This is especially pertinent during this time of economic difficulty, as many individuals are out of work and left with significantly more time on their hands. Additionally, it is important to consider other sources of worry, including social, spiritual, family, and financial issues.

## FUNDAMENTAL 4 RECOGNIZE PATIENTS' PAIN AND SHOW RESPECT

As important as it is to diagnose and treat the physical condition, it is also important to recognize the real suffering of patients with DED. On a verbal level, this can be done through dialogue and responding to patients' vocalization of complaints. On a nonverbal level, pain can be assessed through patients' facial expressions and behavioral attitudes, muscle tension and stiffness, shielding of the face and eyes, hyperactivity or hypoactivity, and crying fits.

The pain experienced by patients with DED can be classified as acute or chronic. Acute pain is easier to diagnose, as it can be directly and visibly observed through behavioral and verbal expressions. Chronic pain is more difficult to diagnose

and assess, as expressions are often hidden and concealed; through habituation, patients' verbal behavior and activity level are often no longer consistent with the intensity of the pain.

Patients experiencing pain should feel welcome and at home in the clinician's environment. Fostering verbal communication increases patients' tolerance of their suffering and their DED symptoms. Listen carefully to the patient without worrying about finding and proposing an immediate solution. Resist the urge to delegate communication to others. If verbal communication between the patient, his or her family, and the ophthalmologist is difficult or impossible, the patient will begin to speak the language of uncontrollable pain.

We must always respect the symptoms, pain, and discomfort felt by these patients. It is important to recognize patients' experiences and allow them to manifest all emotions, including feelings of fear, sadness, anxiety, anger, frustration, disappointment, and worry about a potentially uncertain future.

Although these things may seem easier said than done, they can be accomplished by always believing patients when they express a subjective symptom of DED. Do not enter into a confrontational situation that will block communication. Picture yourself, the physician, as a parent, and patients as wayward children. Thinking in these terms will prevent you from falling to the trap of a symmetrical relationship. Do

# IPL for DED

Although patient psychology is extremely important, it is not the only aspect of DED that physicians must treat. There are now several strategies for managing the physical effects of DED, one of which is intense pulsed light (IPL) therapy.

IPL technology was initially used by plastic surgeons and dermatologists for the treatment of excessive hair growth, skin photorejuvenation, and treatments of pigmentation, vascular problems, and acne. IPL technology has since been introduced to ophthalmology for the treatment of meibomian gland dysfunction and blepharitis.

In my practice, I have implemented the E-Eye IPL device (E-Swin) for the treatment of DED. This device generates polychromatic pulsed light by producing perfectly calibrated, homogeneously sequenced, sculpted light pulses. The energy, spectrum, and time period are precisely set to stimulate the meibomian glands to cause them to return to their normal function.

Each treatment session takes only a few minutes, during which the patient is comfortably seated. The ophthalmologist adjusts the metal eyewear protection on the patient's head to protect his or her eyes from the light. Then the ophthalmologist applies a hydrogel material on the skin for protection. A series of five flashes is applied under the lower eyelid, from the internal canthus to the external canthus, using nominal power (Figure 1). The same process is then repeated under the lower eyelid of the other eye.

IPL does not directly affect the meibomian glands; its action is indirect. The treated areas (the suborbital and zygomatic regions) are areas that the parasympathetic nerve passes through. It has been shown in neurologic studies that exposure of a nerve to infrared light in a train of pulses leads to the creation of a microgradient of temperature between the inner and outer layers of the myelin sheath. This gradient of temperature triggers the liberation of neurotransmitters, which help to clean the meibomian ducts.

Anatomically, the parasympathetic nerve is connected to the meibomian glands by some of its branches. The neurotransmitters released by IPL can interact with the meibomian glands, stimulating the secretion and contraction of the glands and improving the microcirculation.

The treatment effect is cumulative. It lasts 1 week after the first session, 2 to 3 weeks after the second session, and 6 months to 2 years after third to fourth sessions. An 85% success rate has been observed; the other 15% comprises patients who do not return.<sup>1</sup>

1. E-Eye results. <http://www.dry-eyes.com.au/>. Accessed August 12, 2016.



Figure 1. The positioning of the five flashes applied to the lower lid.

Courtesy of E-Swin

not trivialize, deny, or dramatize patients' concerns linked to dry eye.

## FUNDAMENTAL COLLABORATE

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The uncertainty and insecurity patients feel with respect to the expected results of treatment make it difficult to assess the disease and decrease the tolerance threshold for perceived pain. Patients with DED will often go from doctor to doctor looking for relief. Thus, it is important for ophthalmologists to foster communication and collaboration between patients with DED, their family members, and other treating specialists (eg, rheumatologist, internist, gynecologist, immunologist).

Any disagreement between the ophthalmologist and another physician will serve only to increase patients' anxieties and incomprehension. Ineffective collaboration can invoke loneliness in patients, hinder their likelihood of adhering to prescribed treatments, and instill concerns about the chronicity of the disease. Good collaboration, by contrast, promotes exchange of information, improves the monitoring of therapy, and encourages increased awareness of patients' needs.

## CONCLUSION

The psychological component of DED can be addressed with constant medical and psychological support. Relaxation therapies, including cognitive therapy and supportive psychotherapy, are often helpful. Some specialists prescribe psychotropic drugs such as anxiolytics, antidepressants, and neuroleptics, but this depends on physician preference.

If mismanaged, DED can be harmful to patients' physical and mental health. By acting as the patients' coach, the eye care provider plays an influential role in the way in which the diagnosis is received and symptoms are managed. Above all, by following the fundamental steps outlined above, the eye care provider can work to ensure that the quality of life in patients with DED is as unaffected as possible by this chronic and potentially debilitating condition. ■

### Luigi Marino, MD, PhD

- Director, Centro Italiano Occhio Secco, Milan
- [profluigimarino@gmail.com](mailto:profluigimarino@gmail.com)
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