

Intense Pulsed Light Therapy: Relief for Dry Eyes

A new procedure frees patients from artificial tears and improves their quality of life

Evaporative dry eye is a disease that drastically affects the lives of millions of people, causing chronic pain, discomfort, and loss of vitality. With few treatments available for evaporative dry eye disease—which is caused by meibomian gland dysfunction (MGD)—those who suffer from it often have to deal with an hourly regimen of artificial tears to moisten their eyes, combined with other therapies such as frequent hot compresses and eyelid scrubbing.

Duke Eye Center's Preeya K. Gupta, MD, offers new hope for longer-lasting relief in the form of intense pulsed light (IPL) therapy.

The light therapy targets the fine blood vessels called telangiectasias and shuts them down, helping relieve the inflammation.

Patients should consider IPL if they have symptoms such as chronic redness in the eyes, irritation, blurry or fluctuating vision, fatigue in the eyes, and not being able to read or use a computer for long periods.

IPL is well tolerated by patients. If patients are interested in IPL, Gupta begins with a comprehensive evaluation of the eyes and dryness to determine if they will likely respond well to the therapy. Good candidates have telangiectasias, dysfunction or thickening of the oil secretions, poor flow of the oil secretions, or any signs of chronic inflammation.

The procedure itself takes 15 minutes or less. The eyes are protected with a shield. A cool ultrasound gel is placed over the skin of the treatment areas, since the light therapy feels similar to the sensation of mild

sunburn. Most patients need four treatments (one treatment every three to six weeks) to see the full benefit of IPL.

"These procedures don't require patients to do anything differently after they go home," says Gupta. "For busy, active people, it really improves their quality of life, and many patients become less dependent on artificial tears and other dry eye therapies."

However, IPL isn't for everyone. Because the light is also absorbed by melanin, the pigment molecules in skin, the treatment works best for fair-skinned people.

IPL is also not a permanent cure. The blood vessels grow back, and the glands can become dysfunctional again. On average, after the initial four visits, patients will need treatment once a year.

A related dry eye therapy, Lipiflow, can also relieve gland obstruction, but it works differently than IPL. The two treatments can be complementary or synergistic, and some of Gupta's patients receive both.

In addition to relieving evaporative dry eye and eliminating the need for constant artificial tears, IPL also appears to help slow the progression of MGD and ocular rosacea. MGD worsens over time with chronic untreated inflammation that can result in the glands scarring, and can become very difficult to treat. Likewise, untreated ocular rosacea can cause scarring of the cornea, which results in loss of vision.

Gupta sees the rapid changes that IPL produces and is glad to be at the forefront of evaporative dry eye treatment.

"IPL relieves the burden of dry eyes," she says. "Patients don't have to think about their eyes as much and can better enjoy their lives." ■

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Learn More

Learn more about IPL and other dry eye treatments offered at Duke at dukeeye.org

