



IN PLAIN SIGHT

New options to combat poor eyesight

BY DR. ARUN GULANI

Have you ever held a smartphone or newspaper as far as your hands could reach and were still barely able to read? Or wished there was more light in a restaurant as you looked at the menu? More than likely, you suffer from presbyopia, the gradual loss of the eyes' ability to focus on nearby objects. It's a natural part of aging—albeit, an annoying one—that typically occurs as people mature into their forties.

In a young eye (those less than about 40 years old), the natural lens is fully transparent and also flexible. The lens muscles can easily change in curvature from steeper to flatter, offering clear vision at all distances. But during middle age, the lens loses the ability to change its shape, causing blurred vision at near points, such as reading, sewing, or working at the computer and smart phones.

Over time, presbyopia happens to everyone and the condition is on the rise as the U.S. population continues to age. According to the U.S. Census Bureau, approximately 112 million Americans were presbyopic in 2006. By 2020, the number is expected to increase to 123 million. Even some people with 20/20 vision still require reading glasses due to presbyopia. So, how can it be fixed? There are a few options for treatments—many of which require no pain, little downtime, and no injections.

In Jacksonville, Dr. Arun Gulani recently launched a facility dedicated to combatting the condition: the PRESBYOPIA iVision Suite. With nearly three decades of experience, Gulani provides more than 20 different techniques that allow presbyopia patients to see without the use of glasses or contact lenses. Various procedures such as no-cut, no-blade, laser precision techniques can be used for patients with presbyopia and even those with associated near-sightedness, far-sightedness and astigmatism.

THE MONOVISION OPTION

The onset of presbyopia can be particularly frustrating for those who wear contact lenses for monovision (wherein two different contact lenses are worn on each eye—one to correct distance vision and one to correct near vision). According to Gulani, monovision can be achieved without the use of contact lenses, thanks to laser and lens-based reactive surgeries adapted for presbyopia correction. Similar to the use of contact lenses, the surgery will correct one eye for near vision and the other for

distance, allowing both eyes to work together to see at all distances.

CATARACT LENS REPLACEMENT

As we age, the eyes' natural lens becomes a cataract. A no-stitch, no-injection, and no-blade procedure utilizes a new generation of lens implant to permanently clear cloudy vision and, in most cases, restore the eyes' ability to "zoom in" without glasses. These lens implants are permanently placed inside

the eye, to replace the cloudy natural lens and aim for vision at all distances.

Patients who do not yet have a cataract can be evaluated for advanced laser techniques to optically manipulate vision, so that both eyes blend to see at all distances using spherical aberrations and wavefronts as a higher form of vision correction. Corneal inlays are also being investigated for use among these patients. *



PRESBYOPIA: SIGNS & SYMPTOMS

YOU MIGHT SUFFER FROM PRESBYOPIA IF:

- You struggle reading a restaurant menu
- You have to hold a smartphone or tablet farther from your eyes to see them more clearly
- You suffer from headaches, eye strain and visual fatigue that makes reading and other near-vision tasks uncomfortable

WHAT CAUSES PRESBYOPIA?

Presbyopia is believed to stem from a gradual thickening and loss of flexibility of the natural lens inside the eye. As we age, changes occur within the proteins in the lens, making the lens harder and less elastic over time. Age-related changes also take place in the muscle fibers surrounding the lens. Without that elasticity, the eye has a harder time focusing up close.

