# Chapter 6
# Solutions for Presbyopia

## Monovision – LASIK for presbyopia

As explained in Chapter 1, presbyopia usually affects people over the age of 40. The ***crystalline inner lens*** of the eye loses its flexibility to shift focus from distant to near objects, and this results in a person's ability to see either faraway or up-close, but not both. Presbyopic people often wear **bifocals** to correct this problem. The prescription at the top of the lens allows them to see distant objects, while the prescription at the bottom of the lens allows them to focus on near objects.

Although both nearsighted and farsighted people over 40 years of age can have LASIK to bring their vision to normal, this will not correct for presbyopia and they will have to wear reading glasses to do up-close work.

**Monovision** is a LASIK procedure that is used to treat people who are presbyopic. The corrective procedure differs for people depending on the degree of their myopia or hyperopia.

Myopic people usually receive LASIK on the first eye to bring it to 20/20. The second eye is often left uncorrected so that it can be used for up-close work such as reading. However, severely myopic people will also receive an ***undercorrection*** on their second eye. This means that this eye will be treated with LASIK but not brought to 20/20. It will be left nearsighted enough to manage reading activities without being so myopic as to prevent good vision.

Hyperopic people with presbyopia will receive LASIK on both eyes. Their first eye will be brought to 20/20, but their second eye will be ***overcorrected*** so that it becomes slightly nearsighted. This allows them to regain normal vision as well as the ability to read.

Dr. Chynn recommends that you experiment with a contact lens in one eye before deciding whether you would like to have monovision surgery.

## Surgical Reversal of Presbyopia

Surgical Reversal of Presbyopia is another procedure that reverses presbyopia, but this is done without the use of a laser. Four arched implants are placed around the edges of the visual axis, just outside the lens. These ***plastic implants*** stretch the diameter of the lens and enable the ciliary muscles to push and pull on the inner crystalline lens with greater efficiency.

Some disadvantages of this procedure are that it can take up to an hour to perform on each eye, and the reversal of presbyopia is gradual rather than immediate. This is a highly experimental procedure that is not yet FDA-approved because it continues to be investigated in clinical trials throughout the U.S. However, initial results are extremely promising and no serious complications have been reported.