

# Hammond & Dummer

O P T I C I A N S

## **PRESBYOPIA – OR MY ARMS AREN'T LONG ENOUGH TO READ ANYMORE**

During middle age, usually beginning in the 40s, people experience blurred vision at near points, such as when reading, sewing or working at the computer. There's no getting around it — this happens to everyone at some point in life, even those who have never had a vision problem before.

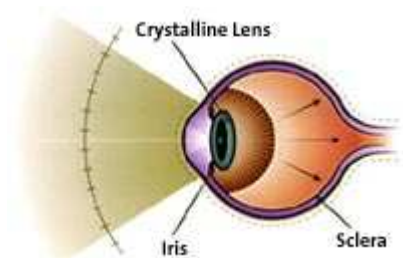
### **Presbyopia Symptoms and Signs**

When people develop presbyopia, they find they need to hold books, menus and other reading materials at arm's length in order to focus properly. When they perform near work, such as embroidery or handwriting, they may have headaches or eyestrain, or feel fatigued.

### **What Causes Presbyopia?**

Presbyopia is caused by an age-related process. This is different from astigmatism, myopia and hyperopia, which are related to the shape of the eyeball and caused by genetic factors, disease, or trauma. Presbyopia is generally believed to stem from a gradual loss of flexibility in the natural lens inside your eye.

These age-related changes occur within the proteins in the lens, making the lens harder and less elastic with the years. Age-related changes also take place in the muscle fibers surrounding the lens. With less elasticity, the eye has a harder time focusing up close. Other, less popular theories exist as well.



**The eye's lens stiffens with age, so it is less able to focus when you view something up close. The result is blurred near vision. (Illustration: Varilux)**

### **Presbyopia Treatment: Eyewear**

Spectacles with bifocal or varifocal lenses are the most common correction for presbyopia. Bifocal means two points of focus: the main part of the spectacle lens contains a prescription for distance vision, while the lower portion of the lens holds the stronger near prescription for close work.

Varifocals are similar to bifocal lenses, but they offer a more gradual visual transition between the two prescriptions, with no visible lines between them.

Reading glasses are another choice. Unlike bifocals and varifocals, which most people wear all day, reading glasses are typically worn just during close work. If you wear contact lenses, your optician can prescribe reading glasses that you wear while your contacts are in.

There are contact lenses for presbyopes, called multifocal lenses. You can obtain multifocal contact lenses in gas permeable or soft lens materials. Another type of contact lens correction for presbyopia is monovision, in which one eye wears a distance prescription, and the other wears a prescription for near vision. The brain learns to favour one eye or the other for different tasks.

Because the human lens continues to change as you grow older, your presbyopic prescription will increase over time as well. This has nothing to do with wearing the glasses as some people think. You can expect your optometrist to prescribe a stronger correction for near work as you need it.

### **Presbyopia Treatment: Surgery**

New surgical options to treat presbyopia are being researched and are already available in many countries. One example is Sceral Implants where an ophthalmologist inserts four small white implants into the sclera (white of the eye). It is thought to increase the efficiency of the muscle which works the lens and so helps its focusing ability.

There are also accommodating implants which can be inserted after cataract removal.