

Overview of Presbyopia and Its Medical Management

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The term *presbyopia* refers to the gradual loss of accommodation by the crystalline lens with advancing age. Patients typically become symptomatic when approaching middle age. They may report blurry vision when doing near work, headaches, asthenopia, squinting, and eye strain.¹ Identification of presbyopia is important because it is an easily correctable cause of vision loss in aging individuals, with many affordable nonsurgical and surgical management options. In developing nations, presbyopia remains widely undertreated due to limits in access to eye care.² In developed nations, patients have a variety of treatments available to improve their acuity at near and intermediate distances. Nonsurgical management options include inexpensive over-the-counter plus power reading glasses, prescription spectacles that incorporate a bifocal segment or progressive lens, multifocal or monovision contact lenses, and pharmacological drops.¹

For previously emmetropic patients, the experience of developing a new dependency on corrective lenses may be distressing. Health care providers should reassure patients that these changes in their vision are a normal part of the aging process and refer the patient to an eye care specialist in optometry or ophthalmology for further evaluation and treatment. Guiding the patient to the best option to correct his or her evolving refractive error can take some time and will require patience from the patient and provider as

they move through an iterative process of trial and error. All decisions should be made in a patient-centered manner with the goal of improving his or her visual function.

This chapter will review the worldwide epidemiology of presbyopia, some of the theories behind the physiologic changes that may contribute to the onset of this condition, and the nonsurgical management options for presbyopic patients.

EPIDEMIOLOGY OF PRESBYOPIA

Presbyopia occurs in all adults, with the onset typically starting around 38 years of age and reaching a peak incidence around 42 to 44 years of age.³ Nearly 100% of patients will prove symptomatic by the time they are 52 years old.⁴ Despite the universal development of presbyopia in older adults, estimating the prevalence and incidence of presbyopia has proven challenging for a number of reasons. First, it is difficult to assess the precise onset of such a slowly developing chronic condition. Second, not all individuals with presbyopia will present for an examination to an eye care specialist to confirm their diagnosis. This is particularly true in developing nations, where 94% of the world's burden of uncorrected vision impairment due to presbyopia exists.² Third, neither the definition of presbyopia nor the