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### Regressive Lenses – A breath of fresh air for your aging eyes

**M**odern lifestyle and occupational needs have changed the way we use our eyes. Our eyes, originally designed for our hunter ancestors to look or hunt at distance, suddenly find it confined within the “Near Point World”. Most tasks whether on job or during recreations have shifted to either close up viewing within arm’s length or extended near distant. There is a basic difference between seeing more at near and extended near distance than seeing more at distance. When you look at near or extended near distance continuously there is a constant stress upon accommodation and convergence function of the eyes, resulting in visual stress and tiring eyes. When the eyes are tired, ease of accommodation is diminished. The result is often noted as visual stress that produces both temporary and permanent adaptive changes which includes nearsightedness, suppressed vision in one eye; poor eye teaming and in extreme cases poor night sleep. The ultimate impact may be noticed as reduced performance both at work and during leisure time, leading to frustrations.



*Fig : 1 Nikon’s Home & Office Lenses*

Presbyopic people are more affected because presbyopia causes fixed focus eyes. A single vision lens allows him to see only at one single viewing distance and a bifocal lens allows

him to see at two distances. However, in reality a person needs to look at a range of distances. This problem is resolved to some extent by wearing multifocal lenses or progressive lenses in which the power of the lens varies depending on the gaze angle. But the wearer always finds himself peeping through a small near viewing zone for near work and even smaller valley for extended near distance work. Meaning, he needs to move his head more to look at full width of the document, leading to not only visual fatigue but also physical fatigue. Often with progressive lenses he makes unusual posture for prolonged intermediate work which may lead to musculo – skeletal stress. This is particularly true for the people who perform their visual task at intermediate viewing distance (50 to 70 cms) and/or for those with needs to see at near or intermediate viewing distance in straight ahead or overhead gaze direction.

Occupational Enhanced Near Vision Lenses or Regressive Lenses are specially designed lenses that meet the presbyopic demands of the people with extensive intermediate viewing needs such as computer users, assembly line workers, clerks, janitors, general office work etc. Even the retired people who live mostly within the home are also benefitted. The lens design provides a reasonably large intermediate vision on the top of the lens to enable them to navigate the workplace and sufficiently large area for reading. The magnitude of unwanted cylinder in occupational enhanced near vision lenses is significantly less than that in a progressive addition lens because total power change is less, resulting in wider viewing zones compared to the progressive addition lens. However, they do not meet general viewing needs outside the workplace for longer distance.

These lenses are available with more than one power depression. The manufacturer provides the laboratory with a selection guide based on the near addition power. Usually lower depressions are recommended for lower additions and the higher depressions are indicated for higher addition. Occupational Enhanced Near Vision lenses can be used successful in meeting the visual demands of most presbyopic computer users. **A favorable consideration is – the person is using Progressive Addition Lenses for general use and Occupational Enhanced Near Vision Lenses for all indoor use.** The individual must be counseled that these lenses are specially designed for use at the computer and within home and office and should not be worn for other tasks, especially driving.

They are really a breath of fresh air for presbyopic people.

*Reference:*

1. Ophthalmic Lenses By Ajay Kr Bhootra
2. Dispensing Optics By Ajay Kr Bhootra

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