

Progressive Lenses

ADJUSTING TO PROGRESSIVE LENSES

Progressive Bifocal Lenses Explained

By Dr. Dhavid Cooper

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Around the age of 40, most people start to have difficulty focusing at close range. The first indication that something is changing is that your single vision lenses can no longer be satisfactorily used for focusing on small print or near objects.

In the past, the most common solution was to prescribe reading glasses or line bifocal lines. With today's technology and the outstanding developments in the optical industry, a simple solution to the need for reading lenses is the use of multi-focal progressive lenses.

Traditional bifocal lenses provide clear vision of objects in the distance and near ranges, but everything in between is blurred. The visible dividing line is also a telltale sign to everyone that you are wearing bifocals!

Multi-focal progressive lenses are a better solution in many instances because they offer the crispest, smoothest, most comfortable vision at all distances. There is no need to have 2 pairs of glasses (*one for distance and one for reading*) or unsightly bifocal lines, and adapting to your progressive lenses takes practically no time at all!

While there are many progressive brands of lenses on the market, I have researched what I consider to be the best progressive lens brands available today. Below you'll find information about my favorite progressive lens brands; Zeiss, Zeiss Brevity, Gradal Top® E, and Varilux, with a brief description of each provided by the manufacturer. While each manufacturer may tout some aspects of its lens over the other, believe me, they are *all* fine-quality products.

We typically use either Zeiss or Varilux premium brands for your progressive lenses, depending on your prescription, or in some instances, the frame type you select.

If you have any questions or require assistance, please call our friendly online opticians who can guide you to the right lenses for you.

Zeiss

Custom-Design

Your eyes are unlike anyone else's in the world. And for the first time ever, your progressive lenses can be, too. With Gradal® Individual premium progressives, Zeiss gives you lenses uniquely engineered for your personal anatomy.

For truly individualized lenses, customization is key. Whether you prefer traditional size frames or fashionably smaller frames, Gradal® Individual progressives are the best choice for you. In fact, no other progressive allows for so many styling options. And no matter what you use your progressives for -- reading, computer work, gardening, home projects or hobbies -- Gradal® Individual technology gives you crisper, more comfortable vision than you've ever thought possible.

Age Related Focus Difficulty For intermediate and short-range focus difficulty associated with aging, there's no better choice than Zeiss Gradal® premium progressives which provide perfect vision all day long, indoors and out. You'll enjoy comfortable, natural vision from the outset with no adaptation delays or conspicuous rocking or swimming effects. Choose from a variety of materials and lens sizes. For traditional style frames, the outstanding design of Gradal® Top outperforms all other multifocal and progressive lenses on the market. Gradal® Brevity is a progressive lens better suited for today's fashionable smaller frames.

On the Job If you work on a computer or engage in any activity that requires even wider fields of vision at intermediate and near distances (like cooking, sewing, studying, even model-making) you need glasses that allow your eyes to focus smoothly between near and intermediate distances. With Zeiss Business, no longer will you have to move your head around to see the computer screen clearly. And Gradal® RD offers a viewing distance of up to 10 feet so you can move around while wearing your glasses. With both Zeiss Business and Gradal® RD, there's no need to peek over your lenses or exchange your eyeglasses while working; everything in the middle and near distances will be crystal clear.

*Gradal® RD and Zeiss Business are not suitable for driving.

How does it work?

In 1984, Carl Zeiss launched a lens that set a new standard for comfort and quality in progressive lenses. The Gradal® HS lens design introduced the patented Horizontal Symmetry technology still used today. It's an innovation which guarantees your vision will be identical in either eye anywhere on the lens (even with two different prescriptions) and preserves normal depth perception. Zeiss applies the same strict standards of Horizontal Symmetry to all of its Gradal® lenses.

Zeiss Brevity

So much science, so little space

Gradal® Brevity offers your patients all the benefits of renowned Zeiss Gradal® progressives in lenses that are now specifically designed for today's smaller frame fashions:

- Fitting heights as low as 16mm broaden the selection of frame styles
- Soft progressive design enables smooth transitions from distance to near zone
- Wide near area sustains extraordinary clarity and identical impressions
- Fully optical aspheric surface reduces distortions and astigmatism in thinner, flatter lenses
- Variable inset based on power and add maximizes corresponding fields of view

Style options for your patients - practical options for you. Gradal® Brevity is available in traditional plastic 1.5 index and super-high 1.67 index lenses, so you can fill every prescription in any frame with fitting heights as low as 16 mm

Gradal Top® E:

A New Landmark in the Evolution of Progressive Lenses

Ongoing product enhancement is a way of life at Carl Zeiss: it is an integral part of the company's corporate philosophy. Now, Zeiss Optics designers have achieved something really spectacular: in meticulous development work they have succeeded in focusing the top-of-the-range progressive lens Gradal Top® even more sharply on wearers' requirements. The size of the distance zone has been increased by up to 15% by reducing the astigmatic error effective in its periphery. To achieve this goal, all processes - from development right up to the finished lens - were re-examined and optimized. To ensure that this product enhancement is openly communicated to customers, an "E" has now been added to the product name Gradal Top® - "E" for evolution.

Surveys have shown that experienced PAL wearers particularly appreciate large distance and near zones - a requirement which has been fully taken into account in Gradal Top® E progressives. The result: wearer tolerance has been increased even further, giving opticians and optometrists the certainty that they are making the right recommendation to presbyopic patients for crystal-clear, natural vision.

Varilux Lenses

The Varilux Authenticity Guarantee

Most Varilux lenses are designed with a new technology called Airmark, visible only when you breathe on the front of your lenses or expose them to steam. As the technology availability grows, more Varilux lenses will have the Airmark. If you don't see the Varilux Airmark, check your authenticity card and Varilux reference mark toward the nasal side of the lens, or talk to your eye care professional to ensure you've received authentic Varilux lenses.

Adjusting To Varilux Lenses

Progressive lenses will introduce some changes to your peripheral vision due to power changes that occur in the periphery of the lenses. You may feel an initial difference in your peripheral vision that will require some slight changes in horizontal head and eye movements. Sensitivity to this area of the lens will diminish with wearing time as you become more accustomed to the lenses.

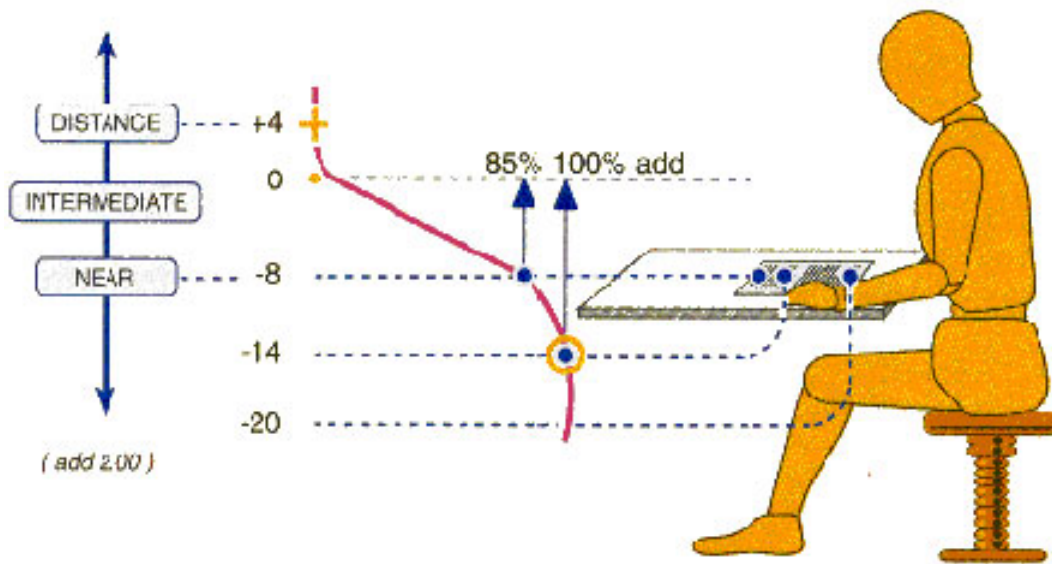
These guidelines will help you adjust quickly and comfortably:

- Stop wearing your old glasses immediately.
- Wear your new glasses high on the bridge of your nose and as close to your face as possible.
- To look at an object, turn your head (and not just your eyes) toward it.
- Move your head vertically until the object glides into focus.

For most, this period of adaptation will be only a few hours. Some individuals may require as much as several days to two weeks to become completely comfortable. If you have been wearing your lenses for this period of time or longer and feel uncomfortable in any way with your vision, contact your eye care professional for an evaluation.

How do Varilux lenses reduce vertical head and eye movement?

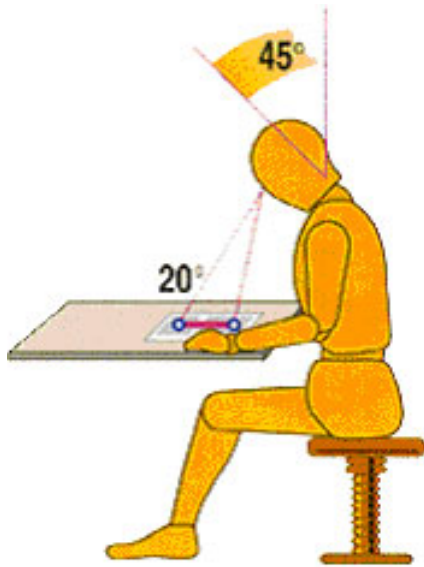
A Unique Power Progression: The higher location of the near vision zone of Varilux lenses results from a unique power progression profile consisting of three parts (See the figure below for an example of a lens with +2.00 D addition, the amount of magnification needed to increase near vision).



Part 1 (from the optical center to 8mm below): A quick increase in power up to 85 percent of the addition. At this point, the near vision zone is considered to start since 85% of the full addition power is sufficient to read the top part of a document that is naturally held further away from the eyes than the bottom part. The physiological length of progression of Varilux is thus 12mm compared with an average 14 to 15mm for other progressives.

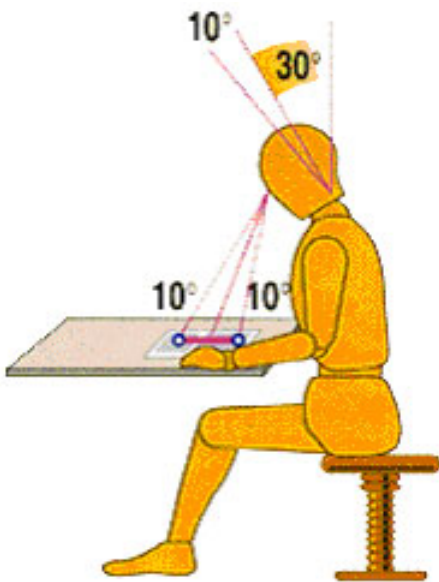
Part 2 (from 12 to 18mm below the fitting cross): Slow increases in power up to the full add power at the center of the near-vision circle. The shape of the power progression, in this part, follows the variation in proximity of the document to the eyes as the gaze lowers, thus creating a truly physiological near-vision zone.

Part 3 (below the vision center): A stabilization of the power progression and then a slight power decrease in the very bottom of the lens below normal reach of the gaze.



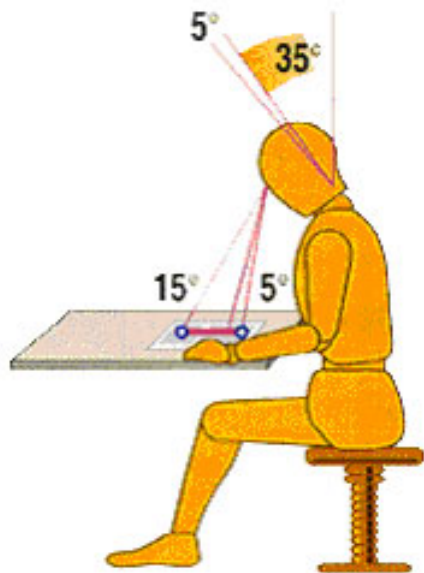
A Non-Presbyope

To reach the bottom of the page, the non-presbyope does not have to move his head but simply lower his eyes 20°. With the head raised and the eyes already lowered 30° to reach the top portion of the page, the wearer of a non-Varilux progressive cannot produce the additional 20° lowering of the eyes that is necessary to read the bottom of the page.



With Non-Varilux Progressive lenses

To achieve the required additional 20°, the wearer lowers his eyes another 10° and the head another 10°. Reading with non-Varilux progressive lenses requires significantly more vertical head movement.



With Varilux

To achieve the same additional 20° required to read the bottom of the page, the Varilux wearer is able to lower his eyes 15° and is required to produce only 5° vertical head movement, half of the head movement required for non-Varilux progressives. Therefore, reading with Varilux lenses is much more comfortable since head posture and eye movements are more natural.

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