

The secret behind biometric intelligence in progressive lenses

When vision worsens at roughly 45 years old, a progressive lens makes optimal vision at all distances possible. However our eyes are so individual that their full potential can only be used with perfectly adapted lenses. Rodenstock expert David Baker (GM Rodenstock UK), describes for whom progressive lenses are suitable and what you should bear in mind while purchasing and during the acclimatisation period.

Who needs to consider wearing progressive lenses?

At some point, everybody! All throughout our life the lenses inside our eyes continue to grow and by the time we reach around 45 years of age, this starts to affect us. As the eye's lens grows it also starts to lose some of its flexibility and cannot bend quickly or easily enough to change focus between distance and close visual tasks. Our eyes now need some assistance for the up to 250,000 eye movements we perform every day. A progressive lens is the ideal choice even for those with previously good vision as it supports vision at every angle and distances.

What should we bear in mind when purchasing progressive lenses?

Quality and accuracy. A huge factor in your journey into wearing progressive lenses is the measurements taken at your opticians. As a rule; the more accurately the lenses match your eyes, the sharper and more comfortable the vision. Biometric Intelligent Glasses from Rodenstock are based on an extremely accurate scan of the eye that allows for the calculation of a highly detailed individual biometric eye model, based on which Rodenstock manufactures lenses that are precise to the micrometer. Other manufacturers use a simplified eye model for making the lenses which results in 98% of lenses not matching the wearer's eyes perfectly.

How does this biometric measurement work?

Rodenstock opticians who provide a biometric measurement are equipped with an innovative technology: Our patented DNEye® Scanner measures the length of the eye, as well as thousands of other data points, which serve as a basis for calculating a biometric eye model. We determine the centre of the sharpest vision for each individual eye and, as a result, considerably more parameters are included in the production of each lens at Rodenstock than at all other manufacturers. Each progressive lens is customised based on these biometric parameters, giving the most accurate lenses in the world. These **Biometric Intelligent Glasses** are the result of our comprehensive B.I.G. Vision® for all concept and make possible an unrestricted, dynamic and natural visual experience, consistent with the brain.

Is the difference really noticeable if the lenses match perfectly?

You notice it straightaway when lenses do not match. But it often happens that spectacle wearers whose lenses are not optimally adapted are not aware of their vision potential – they only notice that their eyes become tired quickly or that their vision is blurred at night when driving and they are hesitant and uneasy. In a Swiss market study, we discovered that 92% of spectacle wearers see sharper than before with biometric intelligent glasses. 88% report greater visual comfort and 80% see better at dusk.

Can I work on the computer or drive a car with progressive lenses or use them as reading spectacles – or would you advise special spectacles for these activities (computer spectacles, driving spectacles, etc.)?

As the name suggests, progressive lenses are designed for providing a smooth transition and sharp vision at all distances. Both up close, and over medium and long distances. All without having to change spectacles all the time or put them on and take them off again. Depending on your lifestyle, there is the right pair of lenses for every spectacle wearer.

If someone spends a lot of time in front of the screen or in the car, we can also recommend computer spectacles with a blue light filter from Rodenstock or the Rodenstock Road lenses.

Are progressive lenses well tolerated? What do I need to bear in mind during the acclimatisation period?

With biometric progressive lenses there are no longer long acclimatisation periods like in the past. They make it easier for the spectacle wearers and the large majority manage well right from the start. At our headquarters in Germany we are constantly researching and developing, calculating and testing. The aim of all these efforts is that spectacle wearers put on their new progressive lenses and not only see perfectly, but also feel good and at ease with their spectacles.

How can I make life easier for myself during the acclimatisation period?

- It is important that the spectacles sit right on your face – therefore, when you pick up your progressive lenses allow the optician to check again how the frames fit on your face. Ensure that the spectacles sit comfortably without any pressure and that the point where you look through the lens is exactly in the middle.
- Wear your new progressive lenses every day from the start, ideally from morning until evening. Don't go back to using your old spectacles or contact lenses. The brain gets used to the new support.
- Turn your head slightly when looking around in the acclimatisation phase. This way you prevent yourself from looking through the blurry peripheral areas of the progressive lens.
- Give yourself some time to find out at which head posture you see best at different distances in day-to-day life with your progressive lenses – e.g. when reading, driving or working on the computer.