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Category: Lenses

# The ABC of progressive lenses

Christine Lorenz, optician and expert for biometric intelligent glasses, answers the most frequently asked questions about progressive glasses and provides valuable insights and tips.

**Munich, September 2022:** The ability to see is one of the most important senses and at the same time one of the most complex processes in the human body. It is therefore all the more important for human well-being to provide the eye with optimal support as soon as it needs it. Especially in their mid-40s, many people notice a change in their visual performance associated with the decreasing elasticity of the eye lens. One notices that especially a quick change between distance and near vision presents the eye with an unprecedented challenge. The optician then usually recommends progressive glasses, which support the eye as an "all-rounder" in all situations. But what exactly are progressive glasses and what do they do? Should everyone choose progressive glasses after a certain age? And what does a good pair of progressive glasses actually depend on?
Christine Lorenz, optician and expert for biometric intelligent glasses at the Regen-based BIG VISION STORE by Rodenstock, answers the most frequently asked questions about progressive glasses and provides valuable insights and tips.

**What is a progressive lens and what does it offer?**
A progressive lens is a spectacle lens that provides additional support to the lens for near and distance vision, thus enabling continuous vision at all distances. The lower part of the lens is designed for near vision, the upper part for distance vision. The section in between forms the transition area for intermediate distances. The individual fields of vision merge smoothly into one another. In addition, the individual areas are not visible, so that the lens does not differ visually from a single vision lens. The individual fields of vision provide sharp vision at all distances and angles, as well as in low light conditions such as twilight.

**Why do you need progressive glasses after a certain age and for whom are they suitable?**
From the age of about 45, the gelatinous lens of the eye gradually loses its elasticity, which is why it can no longer switch as quickly between different distances. For this presbyopia, the eye then needs additional, individual support in the form of progressive lenses, which are adapted to the needs of the particular eye. Progressive glasses are suitable for all people with the onset of presbyopia.

**Is it necessary to change from single vision to progressive glasses at some point?**
Single vision spectacles only compensate for one type of defective vision, short-sightedness or long-sightedness. If presbyopia develops in addition to one of these two refractive errors, single vision spectacles are no longer able to meet the eye's requirements. In this case, a progressive lens specifically addresses the needs of the eye and compensates for both weaknesses through the different vision zones that are integrated into the lens. This creates a sharp image in the distance and close up. So if you don't want to switch back and forth between reading spectacles for near and single vision spectacles for distance, progressive glasses are a good choice.

**Are there any restrictions on the diopter values for varifocals?**
In principle, progressive lenses cover almost all common values. There may be restrictions in the case of very severe refractive errors, which rarely occur.

**There is a very wide range of progressive lenses available in a variety of price ranges. What is the difference**

**There is a very wide range of progressive lenses available in a variety of price ranges. What is the difference between a normal progressive lens and a biometric progressive lens from Rodenstock?**

Biometric progressive lenses differ both in the fit to the individual eye and in the visual comfort they provide. In order for a progressive lens to be optimally adapted to the respective spectacle wearer, the eye must first be precisely measured. Rodenstock uses the so-called DNEye® scanner for individual measurement. This device determines several thousand measurement points of the eye and then calculates a personal biometric eye profile of the spectacle wearer, which is integrated directly into the production of the progressive lens. In contrast, conventional progressive lenses are often only manufactured on the basis of a standard measurement with trial lenses, in which only four standardised refraction values are determined. What remains unconsidered here is that each eye differs in many more parameters, such as the position of the eye or the shape and position of the eye lens. Due to the best possible adaptation to the individual eye, biometric progressive lenses offer the highest level of visual comfort through wide distance and near zones, which cannot be incorporated in conventional lenses due to production technology. Spectacle wearers of conventional lenses notice this by the fact that increased head movements are required in all fields of vision.

**Many people fear a long adjustment period when they first decide to wear progressive glasses. Is this concern justified?**

With every new pair of spectacles, the wearer needs some time to get used to them. After all, the eyes and the brain need time to reprocess the visual impressions. In addition, especially with the first pair of progressive lenses, the wearer needs to understand how to make the best use of the different fields of vision by moving his or her head. Biometric progressive lenses offer a much wider field of vision than conventional progressive lenses, making it easier to get used to them.

My personal tip: Especially in the beginning, new spectacles should be worn regularly as this is the only way the wearer can get used to them. Here it is also helpful to take your time and try out seeing at the different distances. It is advisable not to wait too long to get progressive lenses, as it is easier to get used to them with smaller differences between distance and near vision. As a transition from single vision to progressive lenses, I always recommend a wellness lens that provides very slight support for near vision.

Incidentally, in a Swiss study that asked about the experience with biometric progressive glasses, 87% of spectacle wearers reported a shorter acclimatisation period**. In addition, a high percentage of participants reported other major benefits: 88% of respondents found vision more comfortable with their DNEye® optimised spectacles than with their old spectacles*, 92% saw sharper than before* and 84% saw higher contrast*. 80% also said they could see better at dusk*.

**How often do you need new spectacles?**

As soon as you notice that your eyes are changing and you can no longer see well with your current spectacles, you should have your eyes measured by an optician. The frequency varies greatly from person to person and over the course of a lifetime, but on average a vision check is recommended at least every two years. It is also advisable to have your eyes checked regularly by an ophthalmologist for abnormalities and diseases.

**Where can I buy biometric progressive glasses from Rodenstock?**

As the measurement of the eyes with the DNEye® scanner forms the basis for biometric progressive spectacles, a visit to an optician is required. At www.rodenstock.com/optician-search you can find a suitable optician near you.

**A little life hack to finish off: How do you clean your spectacles properly?**

I always recommend cleaning spectacles with 2-3 drops of washing-up liquid under warm running water or putting them in an ultrasonic bath. Afterwards, you should dry them with a suitable microfibre cloth or a soft

putting them in an ultrasonic bath. Afterwards, you should dry them with a suitable microfibre cloth or a soft tea towel. Be careful with dry cleaning, as dust and small particles can leave scratches on the lens.

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* DNEye® Customer Survey (2018). Zurich.** Muschielok, A. (2017). Personalised progressive lenses according to customer requirements - results of a scientific study. Presentation at the Opti-Forum, Munich.

**About Rodenstock:**

As the world's leading manufacturer of biometric lenses, Rodenstock stands for a paradigm shift in individual lenses thanks to its innovative technologies and its philosophy "B.I.G. VISION® FOR ALL - Biometric Intelligent Glasses". The Munich-based company was founded in 1877 and, as an expert in good vision, demonstrates groundbreaking innovations and market-leading technologies, particularly in the field of spectacle lenses.

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