ZEISS SmartLife Individual SV Lenses.

The next generation of ZEISS Single Vision Lenses with up to 88% larger fields of view.*
Today's single vision lenses are usually optimized for one distance only – usually far vision. However, this is an outdated and out of touch model. This is because our increasingly connected and on-the-move lifestyle has had a profound impact on our visual behavior. Understanding this more current behavior for single vision lens wearers is crucial. ZEISS SmartLife Individual SV optimizes the lens for far-to-near distances. Furthermore, for the first time ever in a ZEISS single vision lens, a 3D object-space model was used to create the next generation of single vision lenses. The new ZEISS SmartView Technology optimizes the single vision lens design for sharp vision in all distances, especially when we lower our gaze to focus on near objects, like smart phones.

*Data on file.

Face Fit+ technology.
Supports faster adaptation to new lenses.

Research shows that many progressive wearers experience limitations in clear distance vision and 3D vision, and may also have difficulty judging distances.

Using **Face Fit+ technology,** ZEISS optimizes viewing zones based on data for the frame, wrap angle, the position of the eyes behind the frame, and the fit of the frame on the nose and ears. The result is a lens precisely fitted to the patient's unique face, maximizing 3D vision and supporting quick adaptation.

ZEISS Individual Single Vision

■ Vertex.....12.0mm
■ Wrap.....5.0°
■ Panto.....9.0°
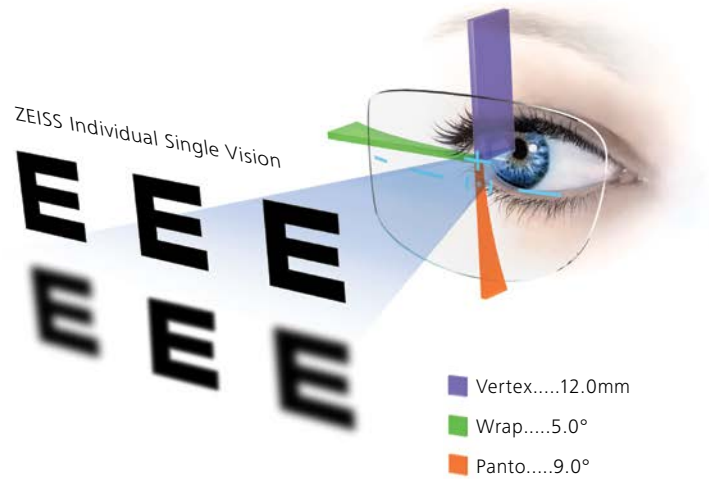
ZEISS Individual SV ensures that visual acuity is maximized and the field of view is wide, comfortable and symmetric.

Luminance Design Technology 2.
Greater clarity for both day and night.

Using **patented Luminance Design technology,** ZEISS factors in patient pupil size across varying light conditions to optimize the design for all-day wear.

Unlike conventional lenses, ZEISS SmartLife Individual SV incorporates ray-trace calculations for entire bundles of light rays across the pupil, thereby delivering more complete data for perfecting the lens design.

The result is a more natural vision experience and greater clarity for lens wearers, whether in bright or low light conditions.
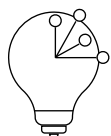
ZEISS SmartLife Lenses.

Developed with you and your patients in mind, to be:
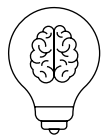
❶ Smart
Addressing relevant consumer needs and a broad target market.

❷ Superior
Incorporating innovative new technology and optical expertise.

❸ Simple
Saving you time by simplifying lens choice and selling.

ZEISS SmartView Technology.

The superior science behind ZEISS SmartLife Lenses.

The foundation of the new ZEISS SmartLife Lens Portfolio - ZEISS SmartView Technology - is founded on consumer insights and scientific research of today's modern visual behavior and individual age-related vision needs.

Based on a unique combination of expertise in ophthalmology and knowledge in various fields of optics, it is the next evolution of the complete ZEISS Precision Technology portfolio.
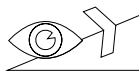
The four cornerstones of ZEISS SmartView Technology:

NEW

❶ Smart Dynamic Optics
State-of-the-art 3D object space-models and design fingerprints adapted to today's dynamic visual behaviors.

NEW

❷ Age Intelligence
Considers the evolution of vision needs at every stage of the lens wearer's life.

❸ Clear Optics
Provides precision in every step of the process: From advanced eye modeling & design calculation to freeform production & manufacturing.

❹ Thin Optics
ZEISS lens aesthetics with the best balance between optics and thin, light lenses.

1. Smart Dynamic Optics.

NEW

The latest design optimization by ZEISS.

Smart Dynamic Optics is based on the simulation of binocular vision during dynamic visual behavior, related to a connected and on-the-move lifestyle (which affects everyone, independent of age).

In summary this entails:

- A sophisticated 3D object-space-model, now also included in the next generation of ZEISS SmartLife Single Vision Lenses.

- New design fingerprints for ZEISS SmartLife Digital and Progressive Lenses

- Both the 3D object-space-model and the new design fingerprints take the dynamic visual behavior from near to far into account, which lead to a smoother transition into the lens periphery with less perceived blur. This enables peripheral vision in a natural dynamic interaction, resulting in comfortable vision and ease of viewing in all distances and directions.[*]

*Data on file.

The 3D object-space-model.

This describes the exact position of a specific object or point, within a 3 dimensional space according to its distance, direction and inclination in relation to the spectacle lens.

The path of light from this object through the lens is calculated binocularly. ZEISS engineers conducted numerous calculations at a multitude of distances and directions over the entire lens surface. They then took modern dynamic visual behaviors into account to optically optimize the lens.

205cm
140cm
500mt
30cm
108cm

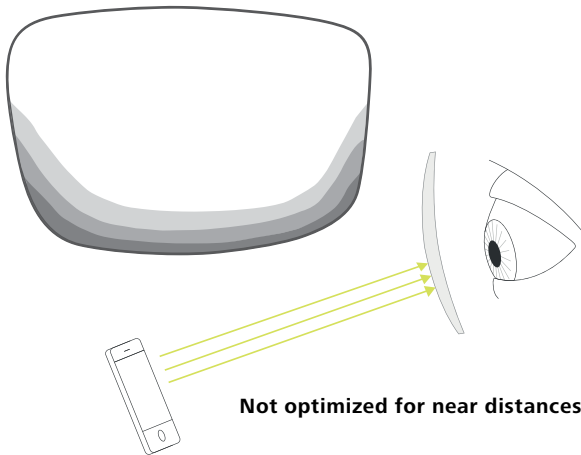My Vision Profile
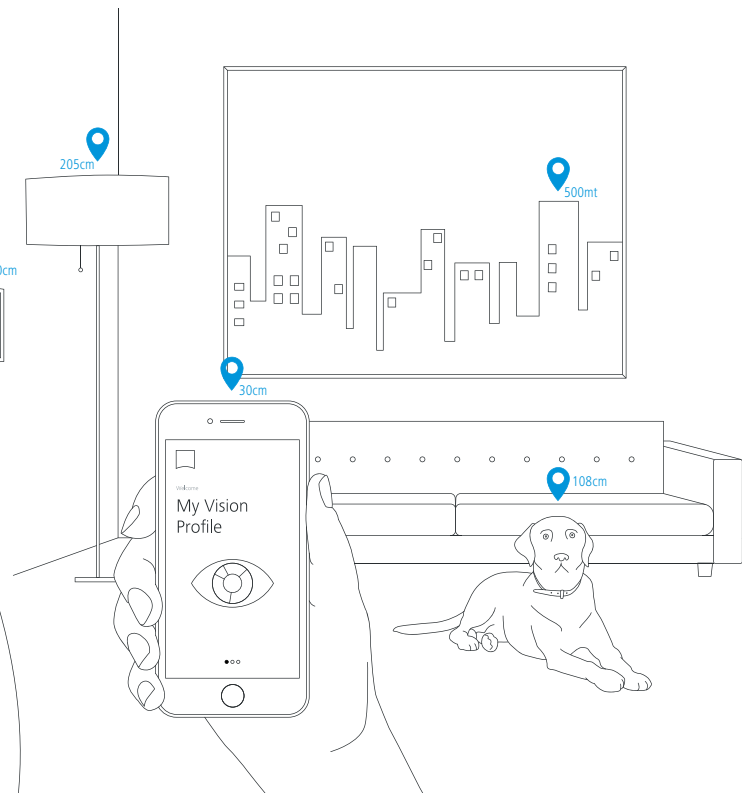
The new design fingerprint.

NEW

ZEISS SmartLife Individual SV

Optical performance in the lens periphery is designed for frequent changes of head and eye position driven by the way we interact with our hand-held devices while on the move. This new design fingerprint provides a smoother transition into the lens periphery with less perceived blur. It facilitates peripheral vision with a more natural dynamic interaction.

Today's Single Vision lenses.
Today's single vision lenses are mostly optimized for one distance only - mainly far vision. As a result, the lower part of the lenses is not optimized for up-close viewing.

ZEISS SmartLife Single Vision Lenses.
ZEISS SmartLife Single Vision Lenses are optimized for sharp vision across all distances. This optimization results in up to **88%** larger clear fields of view.[*]

Not optimized for near distances
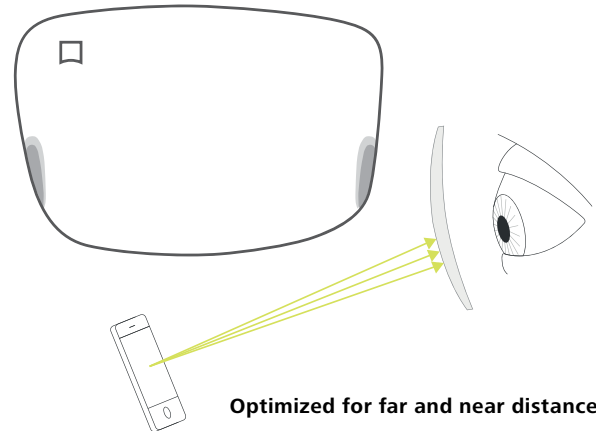
Optimized for far and near distances

Patient benefits

- **94%** perceived wide fields of comfortable vision for intermediate and near tasks.[*]

- **88%** experienced relaxed vision at all distances.[*]

- **94%** experienced ease of viewing in all directions.[*]

- **9 out of 10** rated the quality of vision with ZEISS SmartLife lenses positive.[*]

- **All CLEAR** ZEISS SmartLife lenses include ZEISS UVProtect Technology.

*Data on file.
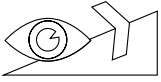
2. Age Intelligence.

NEW

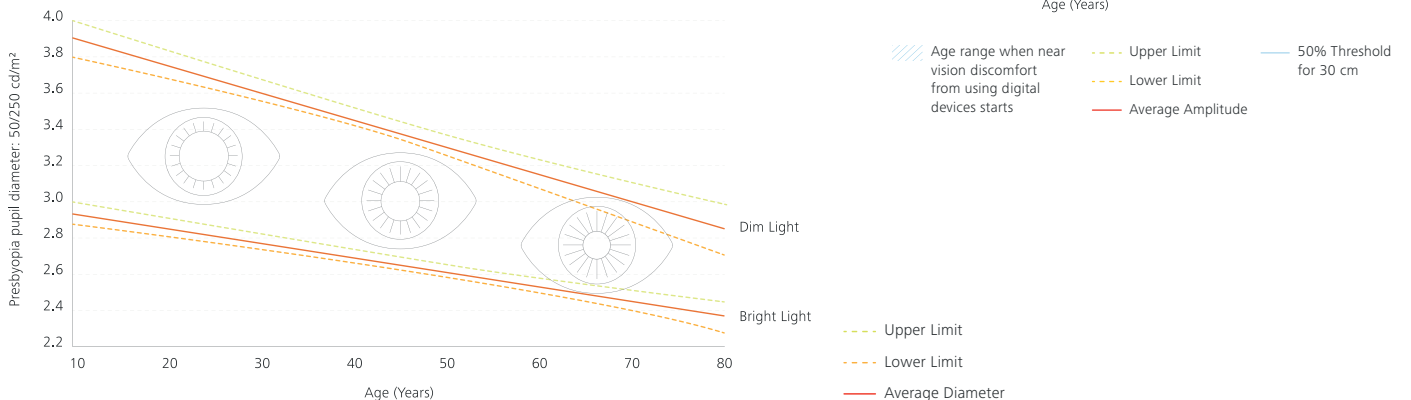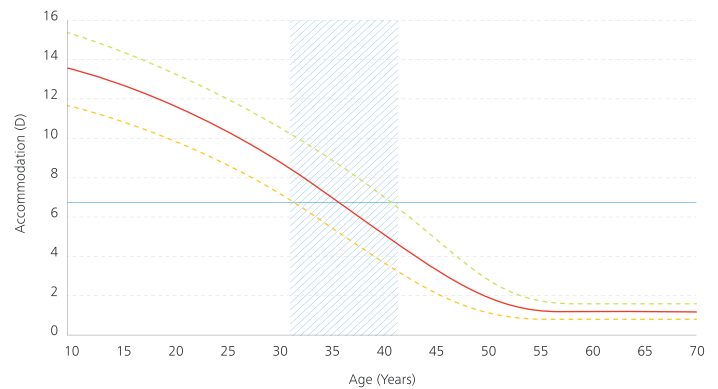## Addressing the evolution of lens wearers' visual needs.

1. Lenses are adapted according to the eyes' accommodation ability, taking into account that this ability decreases significantly as we age. Therefore different lens types are offered for every stage of life – fulfilling evolving vision needs as people age.

Our modern, connected lifestyle has an effect on our visual behavior.
Our eyes also change with age.

Reduced elasticity of the lens due to the aging process

Normal Eye

Eye with Presbyopia
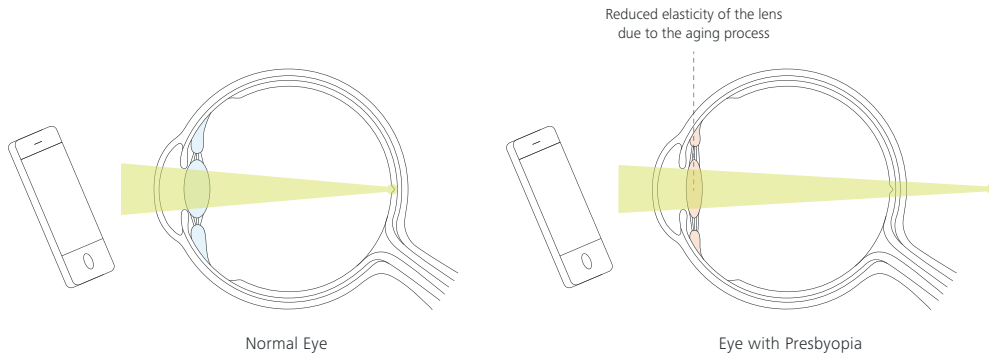
2. Further optical optimization is done based on the average pupil size of a person's age group. As we age our pupils' ability to dilate decreases. For optimization of the lens surface, ZEISS factors in the age-specific pupil size to determine average luminance throughout the day - this is called **ZEISS Luminance Design Technology 2.0.**

Accommodation (D) vs Age (Years)

- Age range when near vision discomfort from using digital devices starts
- Upper Limit
- Lower Limit
- Average Amplitude
- 50% Threshold for 30 cm

Presbyopia pupil diameter: 50/250 cd/m² vs Age (Years)

Dim Light

Bright Light

- Upper Limit
- Lower Limit
- Average Diameter

3. Clear Optics.

The ZEISS promise of precision throughout the complete design and production process.

This is achieved with:

- High precision in an advanced lens-eye-system.

- High precision with the point-by-point lens calculation.

- High precision & leading edge in advanced freeform production.

4. Thin Optics.

ZEISS lens aesthetics with the best balance between optics and thin, light lenses.

Enabled by the ZEISS thickness optimization algorithm, thin & lightweight lenses are based on:

- Optima – the ZEISS thickness reduction option.

- Flexible base curve adaptation – for further aesthetic lens optimization.

- Thinning Prism – for Digital and Progressive lenses, an individual thinning prism is applied, based on all given order data.

ZEISS SmartLife: the smart choice.

The ZEISS SmartLife Lens Portfolio caters to all connected, on-the-move consumers, independent of age – providing clear, comfortable vision to balance their modern lifestyle.
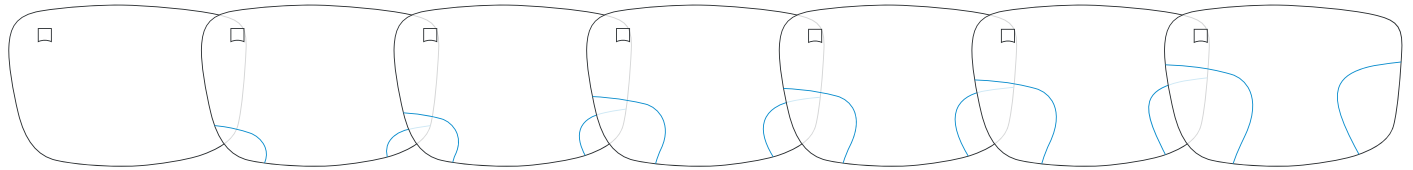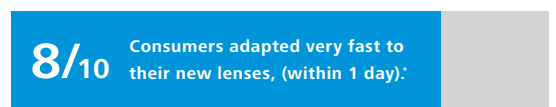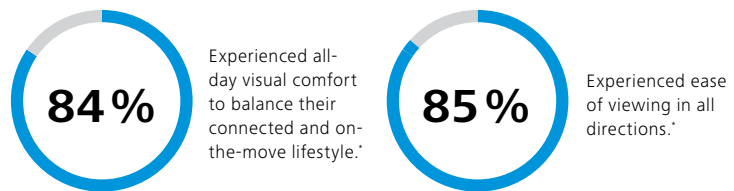
FULL UV Protection in all **ZEISS** clear lenses

20 25 30 35 40 45 50 55

One go-to lens portfolio to address today's consumer needs.

ZEISS's in-depth understanding of visual behavior and visual habits has been incorporated into the design philosophy of the ZEISS SmartLife Portfolio. The portfolio is divided into three categories: ZEISS SmartLife Single Vision, ZEISS SmartLife Digital and ZEISS SmartLife Progressive Lenses, all with further optimization based on age-related visual needs.
This complete portfolio serves a wide range of consumers (20 years and up), addressing their visual needs now and in years to come.

A comprehensive consumer acceptance test was conducted by Aston University's School of Optometry in the UK. Results show a high level of customer satisfaction with ZEISS SmartLife lenses.

84 % Experienced all-day visual comfort to balance their connected and on-the-move lifestyle.*

85 % Experienced ease of viewing in all directions.*

9/10 Rated the quality of vision with ZEISS SmartLife Lenses as positive.*

8/10 Consumers adapted very fast to their new lenses, (within 1 day).*

*Data on file.

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ZEISS

Seeing beyond