Getting Started

TECNIS Synergy™ IOL
The Most Advanced PC IOL
from Johnson & Johnson Vision
TECNIS Synergy™ IOL is a breakthrough innovation that delivers a wider range of continuous vision with better near, day & night.*¹,²

*Vs. AcrySof® IQ PanOptix® Trifocal IOL; continuous 20/32 or better based on DFU defocus curve.
1. TECNIS Synergy™ IOL with TECNIS Simplicity® Delivery System DFU, Z311421E
PRE-OPERATIVE:
Patient Selection and Techniques

To achieve best refractive outcomes:

• Minimize postoperative residual astigmatic error to ≤0.75 D; consider posterior corneal astigmatism (PCA) and surgically induced astigmatism (SIA) in surgical planning.

• Manage any ocular surface conditions, such as dry eye disease, as part of the preoperative assessment.

Please review the full TECNIS Synergy™ Indications and Important Safety Information prior to use for additional information about patient conditions and possible comorbidities:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupil abnormalities</td>
<td>Non-age-related cataract</td>
</tr>
<tr>
<td>Prior corneal refractive or intraocular surgery</td>
<td>Proliferative diabetic retinopathy (severe)</td>
</tr>
<tr>
<td>Choroidal hemorrhage</td>
<td>Severe corneal dystrophy</td>
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<tr>
<td>Chronic severe uveitis</td>
<td>Severe optic nerve atrophy</td>
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<tr>
<td>Concomitant severe eye disease</td>
<td>Irregular corneal astigmatism</td>
</tr>
<tr>
<td>Extremely shallow anterior chamber</td>
<td>Amblyopia</td>
</tr>
<tr>
<td>Medically uncontrolled glaucoma</td>
<td>Macular disease</td>
</tr>
<tr>
<td>Microphthalmos</td>
<td>Pregnancy</td>
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</table>
PRE-OPERATIVE:
Managing Expectations

Patients considering implantation of a presbyopia-correcting IOL need to be aware that there may be trade-offs associated with the technologies available. Ensure patients’ postoperative expectations are adequately managed.

• TECNIS Synergy™ IOL has been designed to provide a range of vision from far to intermediate to near, even in low-light conditions1,2 to reduce eyeglass wear, however:
  – Inform patients that they may still need to wear glasses for some activities.
  – Inform patients that visual disturbances such as halo and glare may occur, especially at night.
  – Patients may experience a period of visual adaptation in distance visual acuity.

1. TECNIS Synergy™ IOL with TECNIS Simplicity® Delivery System DFU, Z311421E.
BIOMETRY

Optical biometry is a non-invasive method for measuring anatomical characteristics of the eye.

• Regularly calibrated Biometers and proper fixation may help ensure that measurements are reliable. Having the patient look directly at the red light will assist with proper fixation, as the instrument measures along the visual axis.

• Repeat measurements 3x-5x.

• Repeat axial length measurement if:
  – Axial length <22.0 mm or >25.0 mm
  – Average corneal power <41 D or >47 D
  – Difference of corneal astigmatism between eyes is >1 D
  – Difference of axial length between eyes is >0.3 mm
  – Difference of calculated emmetropic IOL power is >1 D

• If uncertain with measurements, try another device and compare the results (i.e. IOLMaster® and Lenstar®).
KERATOMETRY

- Make sure that the surface of the cornea is stable prior to keratometry. Manage the ocular surface before biometry AND surgery.
- Perform the keratometry before any eye drops (anesthetic, cycloplegic, fluorescein) are instilled (except artificial tears).
- Ask patient to blink several times then take the measurement.
- Recent contact lens usage may affect the corneal stability; therefore, in contact lens wearers, surgeons should establish corneal stability without contact lenses prior to determining IOL power.
- Repeat keratometry if:
  - K is not between 41 D – 47 D
  - Difference of mean corneal power > 1.0 D between eyes
  - Difference in corneal astigmatic power > 1.0 D between consecutive measurements
  - Poor fixation e.g. mature cataract, etc.
  - Uncooperative or non-communicative patients
- Note: Refractive outcomes are matched 1:1 with keratometry inaccuracy (If you’re 1.0 D off in your K readings, you will have a 1.0 D refractive surprise).

TOPOGRAPHY

- Topography can be used to identify irregular astigmatism and confirm the astigmatism orientation.
- Depending on the device (e.g. Cassini®, Pentacam®, Galileil), topography can also be used to directly measure posterior corneal astigmatism.

With the rule  Against the rule  Oblique  Irregular
REFRACTIVE TARGETING

To optimize distance through near vision, select the IOL power that gives residual refraction closer to plano:

- When equidistant from plano, choose the lens that will target slight hyperopia.
- Targeting myopia is only recommended when closer to plano. Targeting more myopia is neither recommended nor necessary.

1. TECNIS Synergy™ IOL with TECNIS Simplicity® Delivery System DFU, Z311421E.
POWER CALCULATION LENS CONSTANTS
To achieve optimal refractive outcomes

- If you have a personalized A-Constant for TECNIS® Monofocal (ZCB00), use it for TECNIS Synergy™ IOL Power Calculation.
- In the absence of a personalized A-constant for TECNIS® Monofocal (ZCB00), use the labeled TECNIS Synergy™ A-constant (optical 119.3).
- It is suggested that a 4th generation IOL formula is utilized.

SAMPLE CASE: IOL POWER SELECTION

Ensure postoperative astigmatism will be <0.75D

Use labeled DFR00V A-constant or surgeon’s personalized A-constant for ZCB00

Select IOL that is closest to 0.00;

Only when equal, choose the lens that will target first plus

<table>
<thead>
<tr>
<th>Date</th>
<th>Right</th>
<th>Left</th>
<th>IOL Formula</th>
</tr>
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<tbody>
<tr>
<td>05/09/2019</td>
<td>Refraction: -1.00 @ 90</td>
<td>Refraction: -1.25 @ 90</td>
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<tr>
<td></td>
<td>AL: 23.40</td>
<td>AL: 23.38</td>
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<tr>
<td></td>
<td>BCVA: 42.25 @ 00</td>
<td>BCVA: 42.34 @ 00</td>
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<tr>
<td></td>
<td>K1: 42.65 @ 00</td>
<td>K1: 42.65 @ 00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>K2: 42.65 @ 00</td>
<td>K2: 42.65 @ 00</td>
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<td>Average K: 42.45</td>
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<td></td>
<td></td>
<td>n: 1.3375</td>
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<td></td>
<td>Scleral Buckle: No</td>
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<tr>
<td>Additional Data</td>
<td>Silicone in Vitreous Cavity: No</td>
<td>Silicone in Vitreous Cavity: No</td>
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<td></td>
<td>New PC Lens in bag: Yes</td>
<td>New PC Lens in bag: Yes</td>
<td></td>
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</tbody>
</table>

J&J Technis Synergy DFR00V
Procedure: Std Phaco
MFG ACD (Opt): 119.3
IOL SEQ | SEQ Ref
| 23.00 | 0.17 |
| 23.00 | 0.17 |
| 23.50 | 0.17 |

J&J Technis Synergy DFR00V
Procedure: Std Phaco
MFG ACD (Opt): 119.3
IOL SEQ | SEQ Ref
| 23.50 | 0.15 |
| 23.50 | 0.15 |
| 23.50 | 0.15 |
| 23.50 | 0.15 |
INTRA-OPERATIVE

• When using intraoperative aberrometry, if the system has not been optimized, do not choose the TECNIS Synergy™ lens from the IOL menu. Choose the TECNIS® Monofocal 1-Piece IOL (ZCB00) to determine the spherical equivalent power.

• A consistent curvilinear capsulorhexis is critical for centration and accurate effective lens position.

• After implantation of the TECNIS Synergy™ IOL, remove all OVD including behind the IOL, then push posteriorly to aid in capsule capture.

• While patient is fixating on the single coaxial microscope light, center the first diffractive ring on the first Purkinje image. If angle kappa is larger (> 0.5 mm), center the first diffractive ring in between the pupil center and the first Purkinje image. This will effectively center the TECNIS Synergy™ lens at the midpoint of the angle kappa.

• For TECNIS Synergy™ Toric II IOL implantation, please refer to TECNIS® Toric II IOL Tips and Pearls by Dr. Daniel Chang.
POST OPERATIVE:

OCULAR SURFACE

• Continue to optimize the ocular surface and treat OSD, MGD and/or blepharitis.

AUTO REFRACTIONS WILL NOT BE ACCURATE WITH THIS LENS

• Due to the chromatic aberration compensation inherent in the TECNIS Synergy™ lens, auto-refractors (including aberrometers) may give inaccurate readings.

CONSIDERATIONS

• The lens may reflect a blue hue during slit lamp examination. This will not affect the patients vision or color perception.

• Near vision may appear clearer than the distance vision during the early postoperative period.

Image provided by Daniel H. Chang, MD.
**INDICATIONS and IMPORTANT SAFETY INFORMATION FOR TECNIS Synergy™ IOL with TECNIS Simplicity® Delivery System, Model DFR00V and TECNIS Synergy™ Toric II IOL with TECNIS Simplicity® Delivery System, Models DFW150, DFW225, DFW300, DFW375**

**Rx Only**

**INDICATIONS:** The TECNIS Simplicity® Delivery System is used to fold and assist in inserting the TECNIS Synergy™ IOL which is indicated for primary implantation for the visual correction of aphakia in adult patients, with less than 1 diopter of pre-existing corneal astigmatism, in whom a cataractous lens has been removed. The TECNIS Simplicity® Delivery System is used to fold and assist in inserting the TECNIS Synergy™ Toric II IOLs that are indicated for primary implantation for the visual correction of aphakia and for reduction of refractive astigmatism in adult patients with greater than or equal to 1 diopter of preoperative corneal astigmatism, in whom a cataractous lens has been removed. Compared to an aspheric monofocal lens, the TECNIS Synergy™ IOLs mitigate the effects of presbyopia by providing improved visual acuity at intermediate and near distances to reduce eyeglass wear, while maintaining comparable distance visual acuity. The lens is intended for capsular bag placement only. **WARNINGS:** Intraocular lenses may exacerbate an existing condition, may interfere with diagnosis or treatment of a condition or may pose an unreasonable risk to the eyesight of patients. Patients should have well-defined visual needs and be informed of possible visual effects (such as a perception of halo, starburst or glare around lights), which may be expected in nighttime or poor visibility conditions. Patients may perceive these visual effects as bothersome, which, on rare occasions, may be significant enough for the patient to request removal of the IOL. The physician should carefully weigh the potential risks and benefits for each patient. Patients with a predicted postoperative residual astigmatism greater than 1.0 diopter, with or without a toric lens, may not fully benefit in terms of reducing spectacle wear. Rotation of the TECNIS Synergy™ Toric II IOL from its intended axis can reduce its astigmatic correction. Misalignment greater than 30° may increase postoperative refractive cylinder. If necessary, lens repositioning should occur as early as possible, prior to lens encapsulation. The lens and delivery system should be discarded if the lens has been folded within the cartridge for more than 10 minutes. Not doing so may result in the lens being stuck in the cartridge. Do not attempt to disassemble, modify, or alter the delivery system or any of its components, as this can significantly affect the function and/or structural integrity of the design. **PRECAUTIONS:** Interpret results with caution when using autorefractors or wavefront aberrometers that utilize infrared light, or when performing a duochrome test. Confirmation of refraction with maximum plus manifest refraction technique is strongly recommended. The ability to perform some eye treatments (e.g., retinal photocoagulation) may be affected by the IOL optical design. The surgeon should target emmetropia, as this lens is designed for optimum visual performance when emmetropia is achieved. The TECNIS Synergy™ IOLs should not be placed in the ciliary sulcus. Carefully remove all viscoelastic and do not over-inflate the capsular bag at the end of the case. Residual viscoelastic and/or over-inflation of the capsular bag may allow the lens to rotate, causing misalignment of the TECNIS Synergy™ Toric II IOL. All preoperative surgical parameters are important when choosing a TECNIS Synergy™ Toric II IOL for implantation, including preoperative keratometric cylinder (magnitude and axis), incision location, the surgeon’s estimated surgically induced astigmatism (SIA) and biometry. Variability in any of the preoperative measurements can influence patient outcomes and the effectiveness of treating eyes with lower amounts of preoperative corneal astigmatism. The effectiveness of TECNIS Synergy™ Toric II IOLs in reducing postoperative residual astigmatism in patients with preoperative corneal astigmatism < 1.0 diopter has not been demonstrated. Patients with a predicted postoperative astigmatism greater than 1.0 D may not be suitable candidates for implantation with the TECNIS Synergy™ and TECNIS Synergy™ Toric II IOLs, as they may not obtain the benefits of reduced spectacle wear or improved intermediate and near vision seen in patients with lower predicted postoperative astigmatism. **ATTENTION:** Reference the Directions for Use for a complete listing of Indications and Important Safety Information.