# I-Design Ortho-K Tool
Help you to understand Ortho-K lens structure

GLOBAL-OK VISION

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## Before Running I-Design Software

- Obtain I-Design Ortho-K tool
- I-Design is free but need periodic renewal
- You need MS office-Excel installed in your computer (Online version like 365 doesn't work)
- Only compatible with Windows (W7 and above)
- You need a GOV account to order lenses online
  → register membership at www.global-ok.com

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## Check & Enter corneal information

| I-Design Ortho-K Tool | | | |
|---|---|---|---|
| OD | ENTER Value | | mm vs. D |
| Flat K | | mm | 0.00 |
| Steep K | | (Optional) | 0.00 |
| Rx Sph | | S.E | 0.00 |
| Rx Cyl | | Extra | 1.4333 |
| HVID | | (Optional) | (Index) |
| Corneal e | | | Default 0.5 |
| Conform | | microns | adjust sag |
| Lens specs | Reference | | Suggested d |
| Lens type | V3 | | V3 / GP |
| Target power | | non-Vertex | 0.00 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | | 0.8 | 11.2 |
| OZ (zone width) | | mm | 5.0 ~ 6.2 |
| BC | | | 0.00 |
| Lens power | | | 0.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | | mm | (0.4 ~ 1.0) |
| FC | | -0.0100 | (FZ bearing) |
| AZ1 (Zone width) | | mm | |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

- Enter K: Flat K only or Both Flat & Steep K
- Enter the Refraction, Rx Sphere & Rx cyl
- HVID is optional but highly recommended. Without HVID, the lens diameter will be assigned a default value.
- Corneal e is recommended to enter by topography but optional. If leaving it blank, the most popular 0.5e will be applied as default.
- Material is optional: HDS100 or Extra.
- Conform is set for adjusting sag by microns (10 microns = 0.01mm; Plus (+) for adding; and minus (-) for reducing sag. It helps to remake tighter or looser replacing lenses.

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## Entering Target power to determine BC

- Over target → default +1.00 → Optional to change
- Tear reservoir → default 0.01mm → Optional to change a little.
- Enter Target power (maximum -6.00), Lens size, OZ (values suggested to the right)
- Enter suggested Base curve, BC (suggested value shows in column E)

**I-Design Ortho-K Tool**

| OD | ENTER Value | | mm vs. D |
|---|---|---|---|
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| **Lens specs** | **Reference** | | **Suggested** |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 8.8 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.8 | | 8.80 |
| Lens power | | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | | mm | (0.4 ~ 1.0) |
| FC | | -0.0947 | (FZ bearing) |
| AZ1 (Zone width) | | mm | |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

Tear Graph / Lens Graph

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## Tear profile and lens graph

**I-Design Ortho-K Tool**

| OD | ENTER Value | | mm vs. D |
|---|---|---|---|
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| **Lens specs** | **Reference** | | **Suggested** |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 8.8 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.80 | | 8.80 |
| Lens power | 1.00 | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | 0.6 | mm | (0.4 ~ 1.0) |
| FC | | 0.3768 | (FZ bearing) |
| AZ1 (Zone width) | | mm | 1.5 |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

Tear Graph / Lens Graph

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## Fine Tuning Fitting Curve by Tear Profile

**I-Design Ortho-K Tool**

| OD | ENTER Value | | mm vs. D |
|---|---|---|---|
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| **Lens specs** | **Reference** | | **Suggested** |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 8.8 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.80 | | 8.80 |
| Lens power | 1.00 | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | 0.6 | mm | (0.4 ~ 1.0) |
| FC | 6.00 | 0.1048 | (FZ bearing) |
| AZ1 (Zone width) | | mm | 1.5 |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

Tear Graph / Lens Graph

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### Slide 1

## FC 6.50 is closer but still has Tear thickness ➔ 0.0225mm

| I-Design Ortho-K Tool | | | |
|---|---|---|---|
| OD | ENTER Value | | mm vs. D |
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| Lens specs | | Reference | Suggested |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 6.0 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.80 | | 8.80 |
| Lens power | 1.00 | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | 0.6 | mm | (0.4 ~ 1.0) |
| FC | 6.50 | 0.0225 | (FZ bearing) |
| AZ1 (Zone width) | | mm | 1.5 |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

Tear Graph / Lens Graph

### Slide 2

## FC=6.22 ➔ +0.0004 sag is the closest; FC=6.21 ➔ -0.0004 ➔ Slightly too steep

| I-Design Ortho-K Tool | | | |
|---|---|---|---|
| OD | ENTER Value | | mm vs. D |
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| Lens specs | | Reference | Suggested |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 6.0 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.80 | | 8.80 |
| Lens power | 1.00 | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | 0.6 | mm | (0.4 ~ 1.0) |
| FC | 6.21 | -0.0004 | (FZ bearing) |
| AZ1 (Zone width) | | mm | 1.5 |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

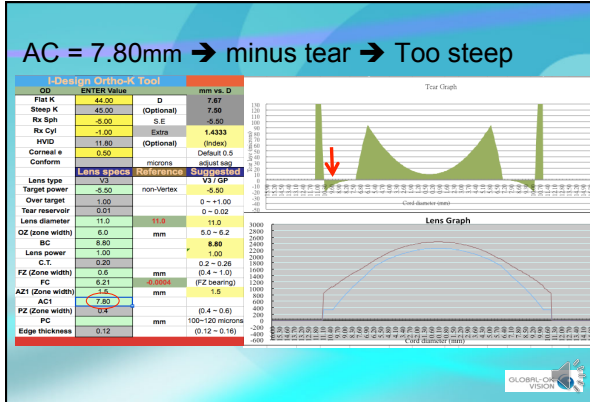Tear Graph / Lens Graph

### Slide 3

## Fine Tuning Alignment Curve

- PZ is set default 0.4mm (If changing PZ, the AZ will alter.)
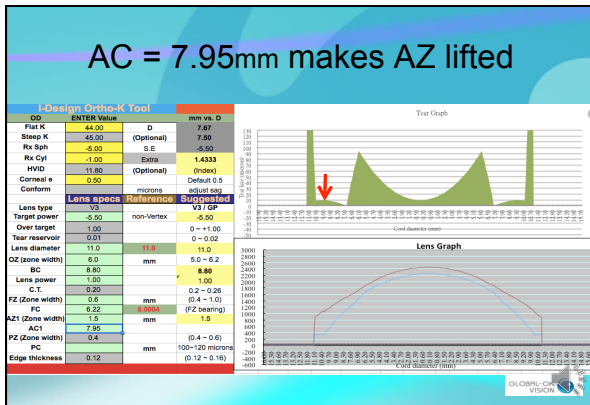- AZ1 is the remaining zone and is suggested 1.5 mm (OAD=11mm=OZ 6mm+ 2*(FZ 0.6mm)+2*(AZ 1.5mm)+2* (PZ 0.4mm))

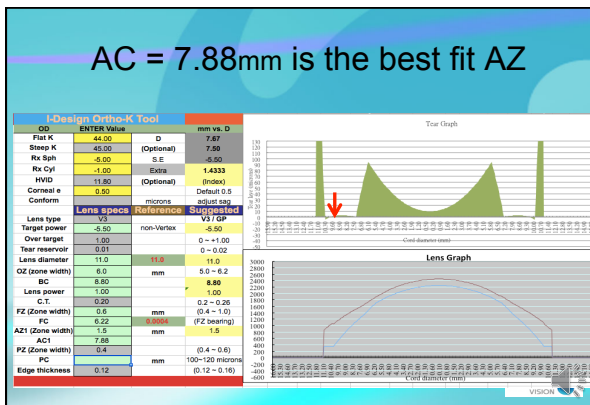| I-Design Ortho-K Tool | | | |
|---|---|---|---|
| OD | ENTER Value | | mm vs. D |
| Flat K | 44.00 | D | 7.67 |
| Steep K | 45.00 | (Optional) | 7.50 |
| Rx Sph | -5.00 | S.E | -5.50 |
| Rx Cyl | -1.00 | Extra | 1.4333 |
| HVID | 11.80 | (Optional) | (Index) |
| Corneal e | 0.50 | | Default 0.5 |
| Conform | | microns | adjust sag |
| Lens specs | | Reference | Suggested |
| Lens type | V3 | | V3 / GP |
| Target power | -5.50 | non-Vertex | -5.50 |
| Over target | 1.00 | | 0 ~ +1.00 |
| Tear reservoir | 0.01 | | 0 ~ 0.02 |
| Lens diameter | 11.0 | 11.0 | 11.0 |
| OZ (zone width) | 6.0 | mm | 5.0 ~ 6.2 |
| BC | 8.80 | | 8.80 |
| Lens power | 1.00 | | 1.00 |
| C.T. | 0.20 | | 0.2 ~ 0.26 |
| FZ (Zone width) | 0.6 | mm | (0.4 ~ 1.0) |
| FC | 6.21 | -0.0004 | (FZ bearing) |
| AZ1 (Zone width) | 1.5 | mm | 1.5 |
| AC1 | | | |
| PZ (Zone width) | 0.4 | | (0.4 ~ 0.6) |
| PC | | mm | 100~120 microns |
| Edge thickness | 0.12 | | (0.12 ~ 0.16) |

Tear Graph / Lens Graph

AC = 7.80mm ➔ minus tear ➔ Too steep



AC = 7.95mm makes AZ lifted



AC = 7.88mm is the best fit AZ

## Complete the lens
### Play PC for an edge lift of 100~120 microns



## Upload orders in Order form



- Scroll up to top, you will find a line of lens design.
- Copy it and paste in order form. Fill in the patient name and material color
- Adding all lenses to be ordered and upload the finished order form online at www.global-ok.com

## Order I-Design lenses

Video



Dr. Tung Worldwide issued patents