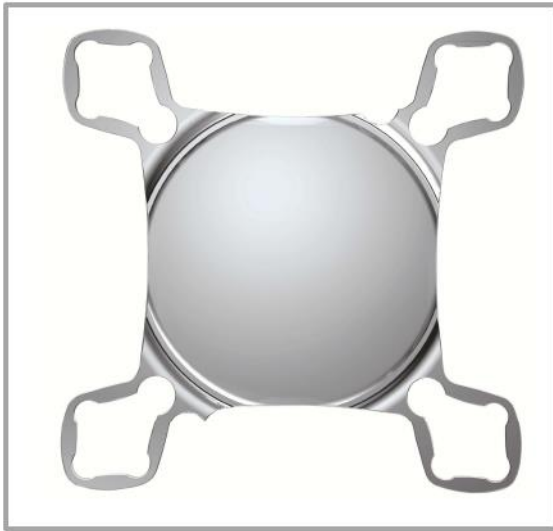


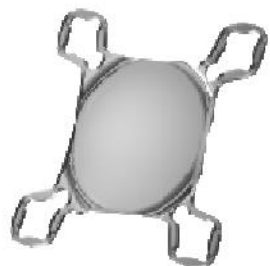
Calcularea LIO AddOn®

15.07.2014

Calcularea LIO AddOn®

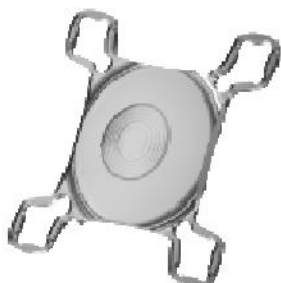


Kembli-Med, 1stQ



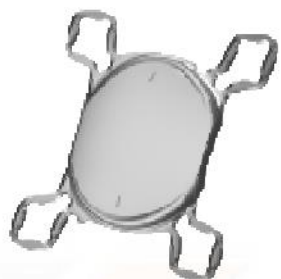
AddOn® Refractiv:

pseudo-phakic ajustări fine, dacă refracția țintă nu a fost obținută;
Disponibil de la -10,0 la + 10,0 dioptrii în pași de 0,25.



AddOn® Difractivă:

pentru vedere la distanță, intermediară și apropiere;
Implantarea LIO-Multifocale este reversibilă;
Disponibil de la -3,0 la +3,0 dioptrii în pași de 0,25;
Putere echivalentă cu 3,0 dioptrii la planul LIO.



AddOn® Toric:

corectarea astigmatismului și a puterii dioptrice a ochiului;
Disponibil de la -10,0 la +10,0 dioptrii (echivalent sferic)
în pași de 0,25, respectiv de la +1,5 la +10,0 dioptrii
echivalent cilindric în pași de 0,75.

Calcularea LIO AddOn®

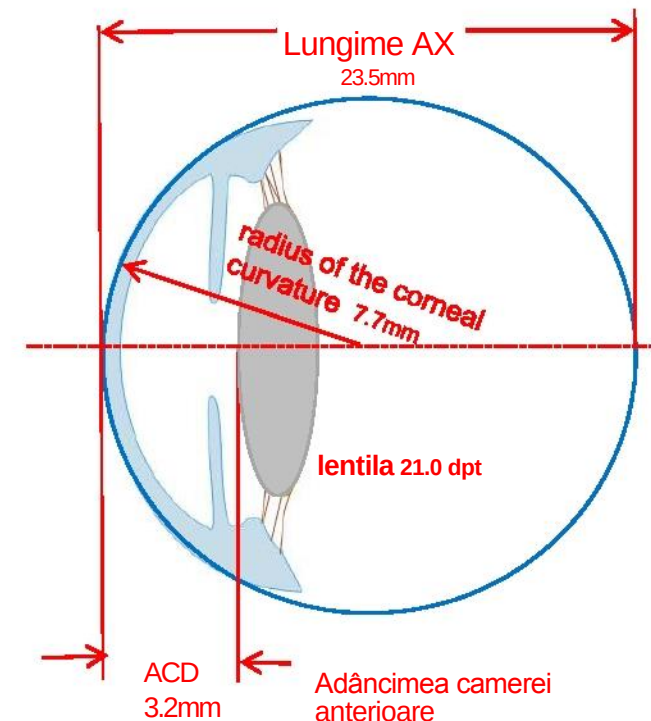
bazată pe

- biometrie
- refracția subiectivă

Calcularea LIO Basis - factori de influență

- Lungimea axială(mm)
- Razele de curbură ale corneei K1/K2 (mm/dpt)
- Adâncimea camerei anterioare (mm)
- Constanta-A a LIO

Ochi model
Măsurători standard:



Calcularea LIO Basis - factori de influență

- Lungime axială (mm)

valoare standard = 23.5mm 21.0dpt LIO

hipermetropie < 23.5mm > 21.0dpt LIO

miopie > 23.5mm < 21.0dpt LIO

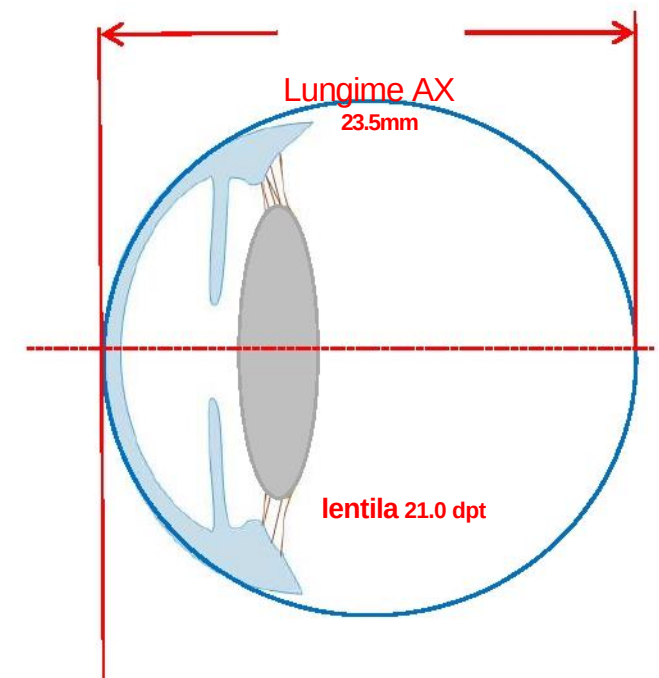
1.0 mm diferență cauzează

3.5 dpt influență asupra LIO !

2.5 dpt influență asupra refracției totale

Ochi model

măsurători standard:



Calcularea LIO Basis - factori de influență

- Razele de curbură ale corneei K1/K2 (mm/dpt)
valoare standard: 7.7mm/43.1 dpt

0.1mm diferență cauzează

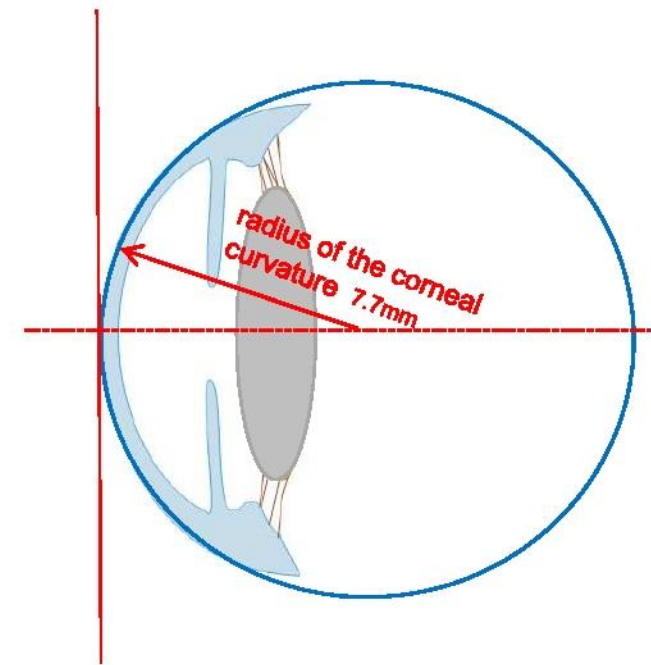
0.8 dpt influență asupra LIO

1.0dpt diferență cauzează

1.4 dpt influență asupra LIO

0.5 dpt / 1.0 dpt asupra refracției totale

Ochi model
Măsurători standard:



Calcularea LIO Basis - factori de influență

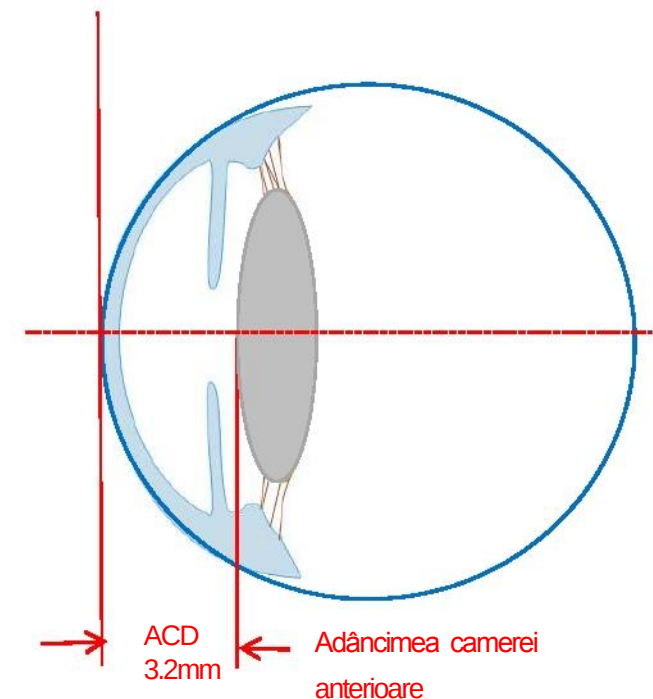
- Adâncimea camerei anterioare(mm)
Valoare standard: 3.2mm
LIO AddOn® - ACD trebuie să fie $\geq 3.0\text{mm}$

1.0 mm diferență cauzează

0.5 dpt asupra LIO

0.3 dpt asupra refracției totale

Ochi model
măsurători standard:



Calcularea LIO Basis

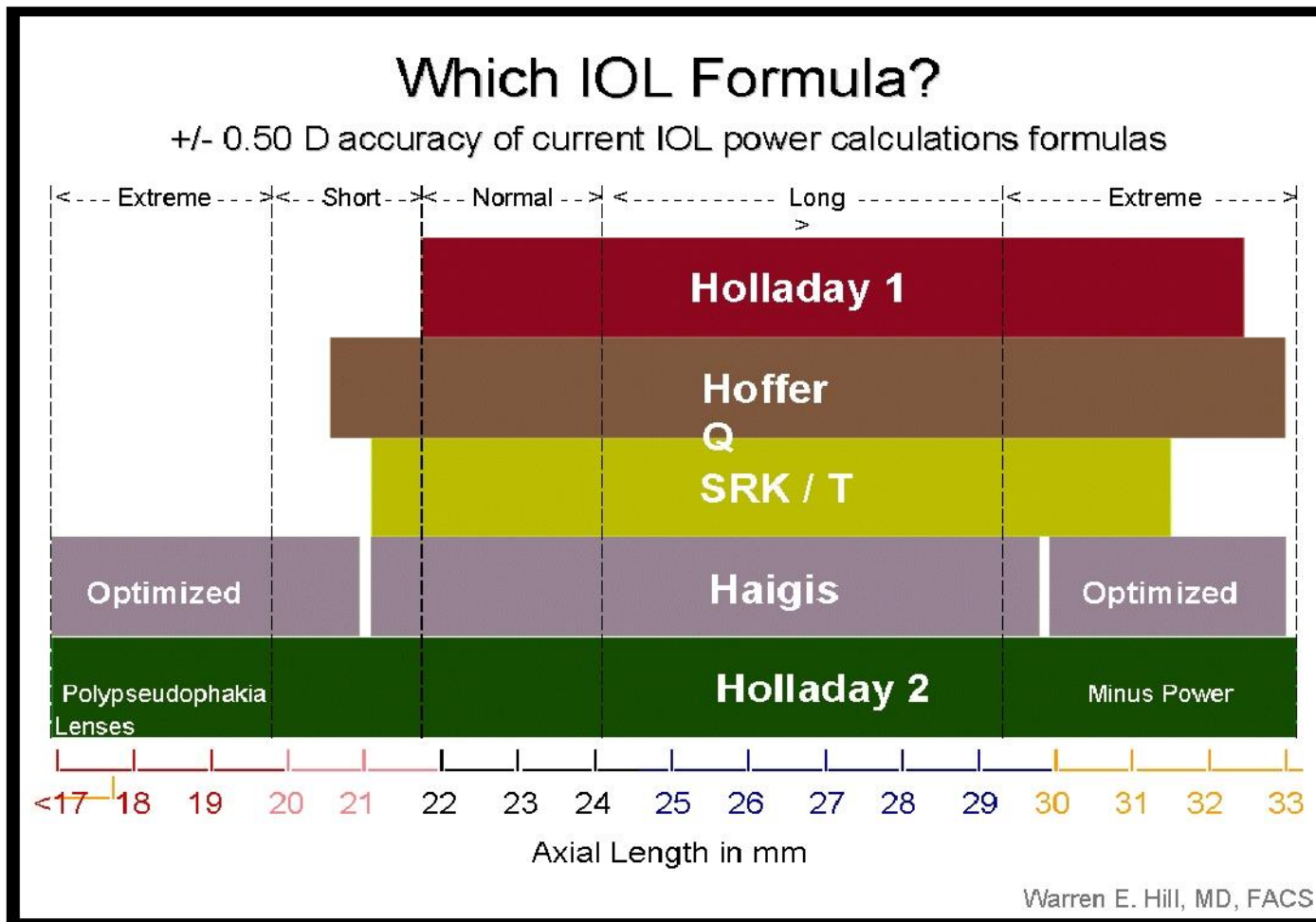
- factori de influență

- Constanta-A a LIO

exemplu: disponibil de la 18.0 dpt până la 20.0 dpt

Name: ID: 44820 Geb. Datum: 13.03.1944 Messdatum: 28.08.2012 Operateur:				Formel: Haigis Zielref.: 0 dpt n: 1.3320							
Die AL-Messwerte sind auf Plausibilität zu prüfen, da pathologische Veränderungen vorliegen könnten!											
OD rechts		AL: 23.40 mm (SNR = 204.5) R1: 7.63 mm / 43.51 dpt x 106° R2: 7.41 mm / 44.80 dpt x 16° R / SE: 7.52 mm / 44.16 dpt Zyl.: -1.29 dpt x 106° VKT: 3.21 mm				AL: 23.71 mm (SNR = 543.4) R1: 7.60 mm / 43.68 dpt x 84° R2: 7.45 mm / 44.56 dpt x 174° R / SE: 7.53 mm / 44.12 dpt Zyl.: -0.88 dpt x 84° VKT: 3.15 mm				OS links	
Status: phak						Status: phak					
IOL A		IOL C				IOL A		IOL C			
A0-Konst.: -2.420 A1-Konst.: 0.157 A2-Konst.: 0.288		A0-Konst.: 0.332 A1-Konst.: 0.244 A2-Konst.: 0.142				A0-Konst.: -2.420 A1-Konst.: 0.157 A2-Konst.: 0.288		A0-Konst.: 0.332 A1-Konst.: 0.244 A2-Konst.: 0.142			
IOL (D)	REF (D)	IOL (D)	REF (D)			IOL (D)	REF (D)	IOL (D)	REF (D)		
21.0	-1.09	20.5	-1.25			20.0	-1.08	19.5	-1.29		
20.5	-0.72	20.0	-0.88			19.5	-0.72	19.0	-0.91		
20.0	-0.36	19.5	-0.51			19.0	-0.36	18.5	-0.54		
19.5	-0.01	19.0	-0.14			18.5	-0.01	18.0	-0.17		
19.0	0.35	18.5	0.23			18.0	0.34	17.5	0.19		
18.5	0.69	18.0	0.59			17.5	0.69	17.0	0.55		
18.0	1.04	17.5	0.94			17.0	1.03	16.5	0.91		
Emme. IOL: 19.49		Emme. IOL: 18.81				Emme. IOL: 18.49		Emme. IOL: 17.77			
IOL B		IOL D				IOL B		IOL D			
A0-Konst.: -1.298 A1-Konst.: 0.233 A2-Konst.: 0.240		A0-Konst.: 0.846 A1-Konst.: 0.400 A2-Konst.: 0.100				A0-Konst.: -1.298 A1-Konst.: 0.233 A2-Konst.: 0.240		A0-Konst.: 0.846 A1-Konst.: 0.400 A2-Konst.: 0.100			
IOL (D)	REF (D)	IOL (D)	REF (D)			IOL (D)	REF (D)	IOL (D)	REF (D)		
21.5	-1.10	20.5	-1.21			20.5	-1.14	19.5	-1.27		
21.0	-0.74	20.0	-0.84			20.0	-0.79	19.0	-0.90		
20.5	-0.39	19.5	-0.46			19.5	-0.43	18.5	-0.53		
20.0	-0.04	19.0	-0.10			19.0	-0.09	18.0	-0.16		
19.5	0.30	18.5	0.26			18.5	0.26	17.5	0.20		
19.0	0.64	18.0	0.62			18.0	0.60	17.0	0.56		
18.5	0.98	17.5	0.98			17.5	0.94	16.5	0.92		
Emme. IOL: 19.94		Emme. IOL: 18.87				Emme. IOL: 18.88		Emme. IOL: 17.78			

(* = manuelle Änderung, ! = Wert unsicher)



În scopul de a obține cea mai bună refracție, **1stQ recomandă formula Haigis!**
Constantele A, optimizate de 3 ori, sunt disponibile pe site-ul ULIB

<http://www.augenklinik.uni-wuerzburg.de/ulib/c1.htm>

Influențe asupra LIO - poziția/dioptria

Exemple LIO Basis/Speciale:

+50,0dpt LIO

Deviația LIO – Poziție cu 0,5mm

1,22dpt

+20,0dpt LIO

Deviația LIO – Poziție cu 0,5mm

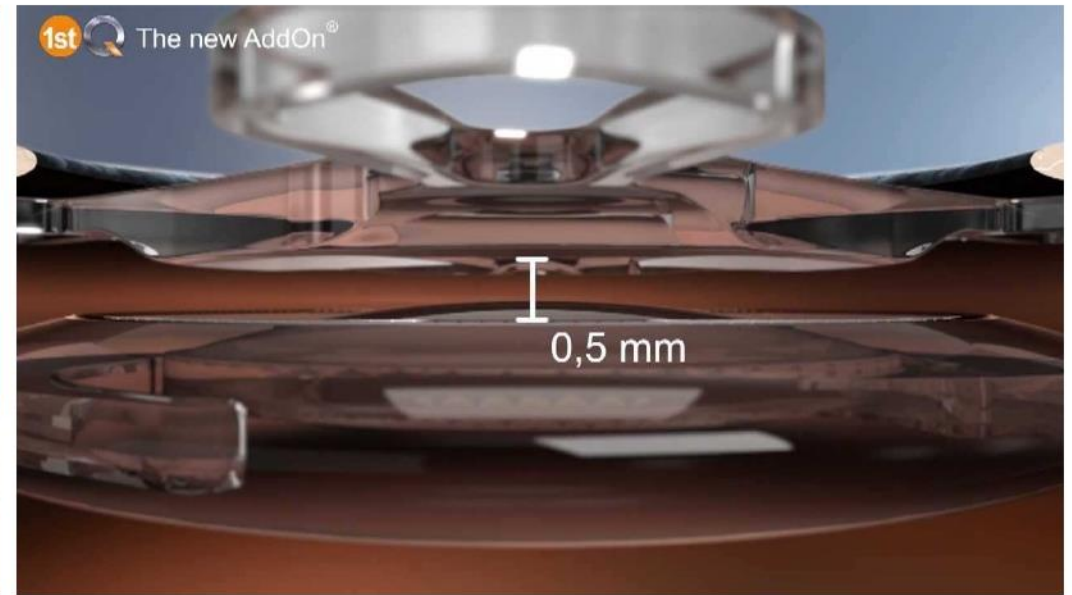
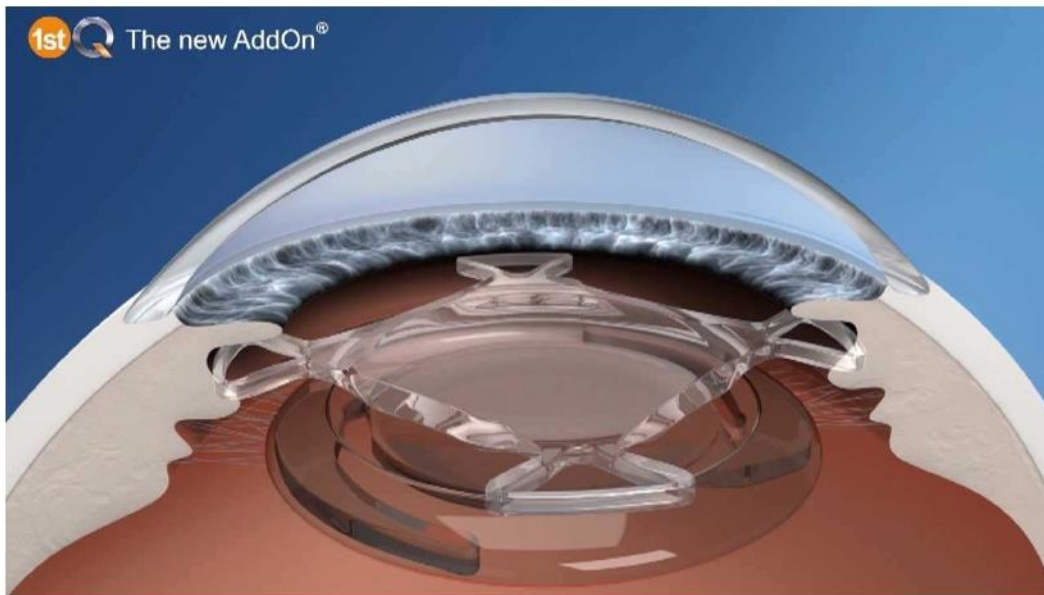
0,20dpt

-10,0dpt LIO

Deviația LIO – Poziție cu 0,5mm

0,05dpt

Influența asupra LIO – poziție / dioptrie



0.5mm distanță între LIO Basis și LIO AddOn®

Influență foarte mică în calculul AddOn®
SEQ de la -10.0 dpt până la + 10.0dpt

Calcularea LIO AddOn®

bazată pe

- biometrie
- refracția subiectivă

Calcularea LIO AddOn®

LIO AddOn®

Formular de Calcul

AddOn®		Refractive		Diffractive		Toric													
Calculation/ Order Surgeon		Please send form to 1stQ via fax or e-mail																	
Name		Country	Mail	Phone		Fax													
Please choose the IOL Model																			
Refractive A4SW00 *10/+10 dpt.		Diffractive A4DW0N *0 dpt +3.5 dpt near A4EW0N *3/+3 dpt +3.5 dpt near		Toric A4TW0T *0 dpt Cyl. 1.50 - 4.50 dpt A4TW00 *0 dpt Cyl. 5.25 - 11.00 dpt A4FW0T *10/+10 dpt Cyl. 1.50 - 4.50 dpt A4FW00 *10/+10 dpt Cyl. 5.25 - 11.00 dpt															
* = refractive power/SEQ																			
Patient Data - to be completed by the surgeon																			
Name or ID-Nr.:				Date of birth:															
Right (OD) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>D</th> <th>axis</th> </tr> </thead> <tbody> <tr> <td>K1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>K2</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Axial length phakic ACD pseudophakic ACD					mm	D	axis	K1				K2				Standard keratometry index 1.3375 If other: Standard biometry: IOL Master or A-Scan Immersion If direct Ultrasound A-Scan contact:			
	mm	D	axis																
K1																			
K2																			
Left (OS) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>D</th> <th>axis</th> </tr> </thead> <tbody> <tr> <td>K1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>K2</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Axial length phakic ACD pseudophakic ACD					mm	D	axis	K1				K2							
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IOL model capsular bag		sph	cyl	axis		IOL model capsular bag													
Subjective, stable postop refraction																			
sph		cyl	axis		BCVA	for standard vertex distance 12.0mm													
						If other:													
						Target refraction													
Manufacturers IOL power suggestion - for different theoretical target refractions																			
Please note that the given target refraction depends on biometry accuracy and does not account for surgical induced astigmatism!																			
Recommended IOL model: A4SW00				Recommended IOL model:															
theoretical target refraction				IOL															
sph equ	sph	cyl	axis	sph	cyl														
Comments:																			
Position of the toric IOL				axis in:															
Order - to be completed after IOL power selection																			
sph		cyl		sph		cyl													
Yes		No		Stand-by-IOL required? (only available for toric model)		Yes No													
Date		calculated on:		Signature															

Calcularea LIO AddOn®

Informații necesare:

1. datele biometriei lungime axială
 mod pseudophakic K1/K2
 ACD

2. LIO implantată

model, dioptrie

3. refracția subiectivă postoperatorie

4. topografie în caz de astigmatism

AddOn®		Refractive	Diffractive	Toric	1st Q																																					
Calculation/ Order Surgeon		Please send form to 1stQ via fax or e-mail																																								
Name		Country	Mail	Phone	Fax																																					
Please choose the IOL Model																																										
Refractive	A4SW00	*10/+10 dpt.		Diffractive	A4DW0N	+0 dpt +3.5 dpt near A4EW0N +3/+3 dpt +3.5 dpt near																																				
* = refractive power/SEQ				Toric	A4TW0T	+0 dpt Cyl. 1.50 - 4.50 dpt A4TW00 +0 dpt Cyl. 5.25 - 11.00 dpt A4FW0T +10/+10 dpt Cyl. 1.50 - 4.50 dpt A4FW00 +10/+10 dpt Cyl. 5.25 - 11.00 dpt																																				
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Subjective, stable postop refraction																																										
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Comments:				Comments:																																						
Position of the toric IOL axis in:				Position of the toric IOL axis in:																																						
Order - to be completed after IOL power selection																																										
sph cyl <table border="1"> <tr> <td></td> <td></td> </tr> </table>						sph cyl <table border="1"> <tr> <td></td> <td></td> </tr> </table>																																				
Yes No Stand-by-IOL required? (only available for toric model)				Yes No																																						
Date				Signature																																						

Exemplu LIO refractivă/difractivă AddOn®:

Refracția țintă nu a fost obținută



Pacientul: -1.5 dpt postoperator - nefericit!

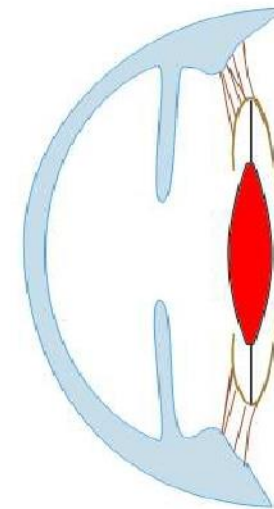
Pre-operator, Biometrie:

K1: 7.60 mm 90° K2: 7.70 mm 0°

Lungime axială: 22.0 mm ACD: 3.2 mm

LIO implantată: B1AWY0 SEQ +25.0dpt

Refracție țintă: SEQ 0,00 (emetropie)



LIO Basis
+25.0 dpt

Postoperator:

Refracția subiectivă: sph -1.25 cyl -0.50 0°

=> SEQ: $-1.25 \text{ dpt} + \frac{1}{2} \times (-0.50 \text{ dpt}) = -1.50 \text{ dpt}$

Pre-operator, Biometrie:

K1: 7.60 mm 90° K2: 7.70 mm 0°

Lungimea axială: 22.0 mm ACD: 3.2 mm

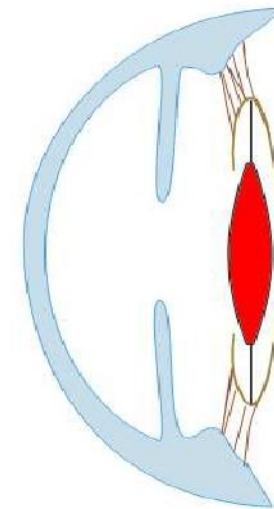
Biometrie (pseudo-phakic):

K1: 7.60 mm 90° K2: 7.70 mm 0°

Lungimea axială: **22.5 mm**

0.5mm mai lung decât măsurat preoperator

aproximativ 1.8 dpt diferență!



LIO Basis
+25.0 dpt

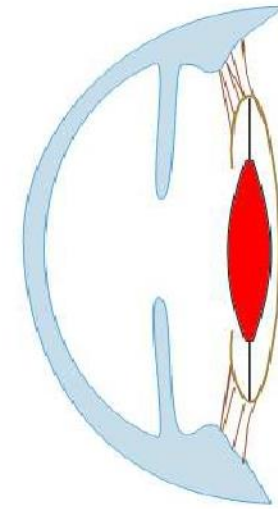
⇒ **Calcularea dioptriei AddOn®**

1.) biometrie

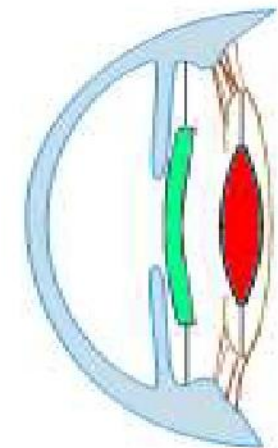
Software/Program de calculare a LIO

Lungimea axială 22.5mm **Țintă: +23.0 dpt**

⇒ Dioptrie AddOn® = **-2.0 dpt**



LIO Basis
+25.0 dpt



AddOn® IOL
-2.0 dpt

LIO Basis
+25.0 dpt

= Țintă: +23.0 dpt

⇒ **Calcularea doptriei AddOn®**

2.) bazat pe refracția subiectivă (verificarea plauzibilității):

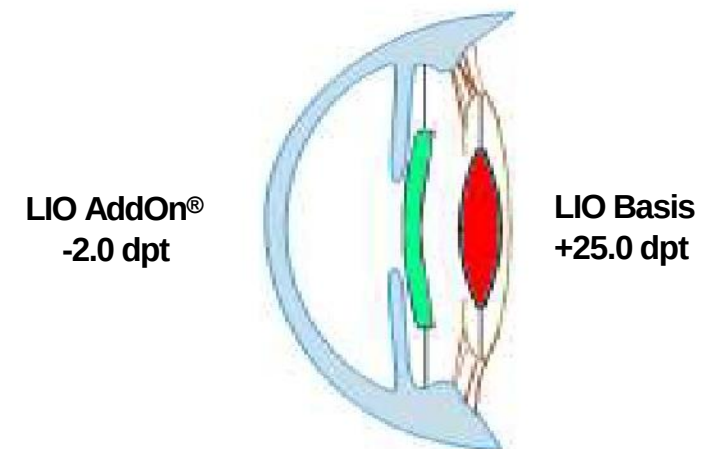
Refracție subiectivă stabilă postoperatorie:
sph -1.25; cyl -0.50; 0°

$$\Rightarrow \text{SEQ: } -1.25 \text{ dpt} + \frac{1}{2} \times (-0.50 \text{ dpt}) = -1.50 \text{ dpt}$$

Factor AddOn® 1.35 (formulă empirică)

$$\text{Dioptrie AddOn®} = \text{SEQ} \times 1.35$$

$$\Rightarrow -1.5 \text{ dpt} \times 1.35 = \mathbf{-2.0 \text{ dpt}}$$



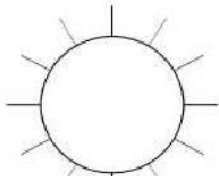
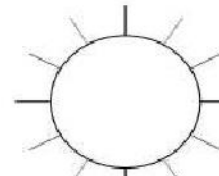
= Țintă: +23.0 dpt

Calcularea LIO AddOn®

Formular de calcul

exemplu

LIO AddOn®
refractivă

AddOn®		Refractive		Diffractive		Toric		1stQ	
Calculation/ Order Surgeon		Please send form to 1stQ via fax or e-mail							
Dr. 1stQ Name		D		info@1sq.de		Phone		Fax	
Please choose the IOL Model									
Refractive		A4SW00		Diffractive		Toric			
		* -10/+10 dpt		A4DW0N		A4TW0T			
				+3.5 dpt near		*0 dpt		Cyl. 1.50 - 4.50 dpt	
				A4EW0N		A4TW00		Cyl. 5.25 - 11.00 dpt	
				*-3/+3 dpt +3.5 dpt near		*0 dpt			
						A4FW0T		Cyl. 1.50 - 4.50 dpt	
						*-10/+10 dpt			
						A4FW00		Cyl. 5.25 - 11.00 dpt	
						*-10/+10 dpt			
* = refractive power/SEQ									
Patient Data - to be completed by the surgeon									
Name or ID-Nr.:		example - refractive AddOn				Date of birth:		15.06.2013	
Right (OD)					Left (OS)				
mm D axis					mm D axis				
K1	7,60		90°	K1					
K2	7,70		0°	K2					
Axial length				22,50		Axial length			
phakic ACD				3,20		phakic ACD			
pseudophakic ACD						pseudophakic ACD			
IOL model capsular bag					IOL model capsular bag				
B1AW00									
sph					sph				
25 dpt									
cyl					cyl				
axis					axis				
Subjective, stable postop refraction									
sph				cyl		axis		BCVA	
-1,25				-0,50		0°		1,00	
0,00									
for standard vertex distance 12.0mm									
If other:									
Target refraction									
Target refraction									
Manufacturers IOL power suggestion - for different theoretical target refractions									
Please note that the given target refraction depends on biometry accuracy and does not account for surgical induced astigmatism!									
Recommended IOL model:					Recommended IOL model:				
A4SW00									
theoretical target refraction					theoretical target refraction				
IOL					IOL				
sph equ	sph	cyl	axis	sph	cyl	sph equ	sph	cyl	axis
	0,05	-0,50		- 2,0 dpt					
Comments:									
Position of the toric IOL					Position of the toric IOL				
axis in:					axis in:				
									

Calcularea LIO AddOn®

Formular de calcul

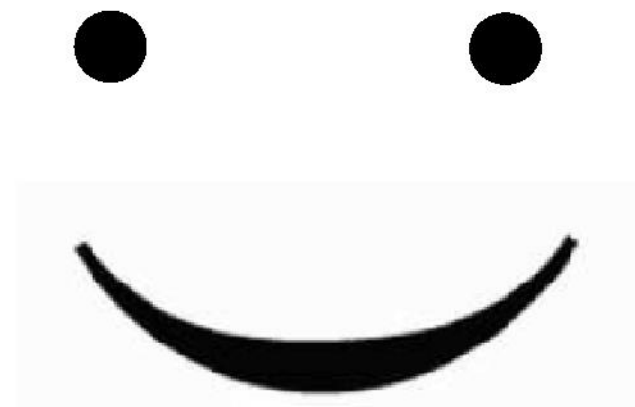
exemplu

LIO AddOn® refractivă/difractivă

AddOn®		Refractive		Diffractive		Toric		1st Q	
Calculation/ Order Surgeon		Please send form to 1stQ via fax or e-mail							
Dr. 1stQ		D		info@1sq.de					
Name		Country		Mail		Phone		Fax	
Please choose the IOL Model									
Refractive		A4SW00		*-10/+10 dpt.		Diffractive		A4EW0N	
								A4TW0T	
								A4TW00	
								A4FW0T	
								A4FW00	
								Cyl. 1.50 - 4.50 dpt	
								Cyl. 5.25 - 11.00 dpt	
								Cyl. 1.50 - 4.50 dpt	
								Cyl. 5.25 - 11.00 dpt	
* = refractive power/SEQ									
Patient Data - to be completed by the surgeon									
Name or ID-Nr.:				example - refractive/diffractive AddOn				Date of birth:	
								15.06.2013	
Right (OD)					Left (OS)				
mm					mm				
D					D				
axis					axis				
K1					K1				
K2					K2				
Axial length					Axial length				
phakic ACD					phakic ACD				
pseudophakic ACD					pseudophakic ACD				
Standard keratometry index 1.3375					Standard biometry: IOL Master or A-Scan Immersion				
If other:					If direct Ultrasound A-Scan contact:				
IOL model capsular bag					IOL model capsular bag				
sph					sph				
cyl					cyl				
axis					axis				
B1AW00					25 dpt				
Subjective, stable postop refraction									
sph					sph				
cyl					cyl				
axis					axis				
BCVA					BCVA				
-1,25					-0,50				
0°					1,00				
0,00					Target refraction				
Manufacturers IOL power suggestion - for different theoretical target refractions									
Please note that the given target refraction depends on biometry accuracy and does not account for surgical induced astigmatism!									
Recommended IOL model:					Recommended IOL model:				
A4EW0N									
theoretical target refraction					theoretical target refraction				
IOL					IOL				
sph equ					sph equ				
sph					sph				
cyl					cyl				
axis					axis				
0,05					-0,50				
					- 2,0 dpt				
Comments:					Comments:				
Position of the toric IOL					Position of the toric IOL				
axis in:					axis in:				



Înainte



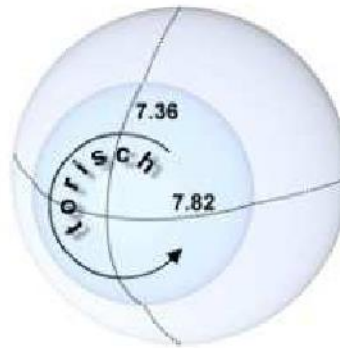
**După implantarea
LIO AddOn®**

AddOn® toric - repetarea principiilor fundamentale



fără astigmatism

ambele meridiane
au 7.82mm => sunt egale

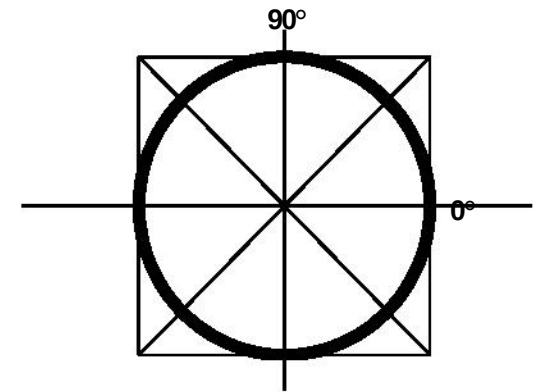


cu astigmatism!

Meridianul abrupt: 7.36mm la 90°
Meridianul aplatizat: 7.82mm

$$7.82 - 7.36 = 0.46\text{mm}$$

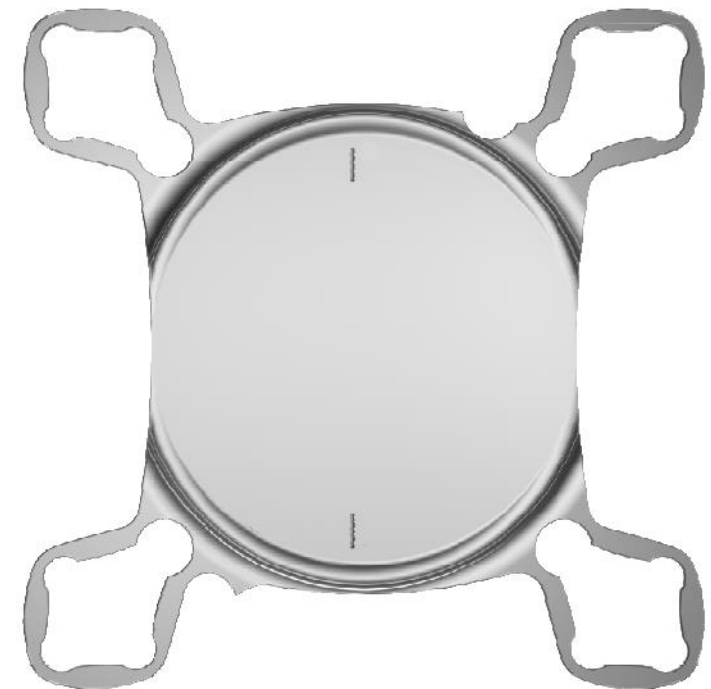
aproximativ 2.7 dpt. cilindru



AddOn® toric – repetarea principiilor fundamentale

Meridianul (axa) orizontal/aplatizat al LIO AddOn® toric este marcat prin două linii opuse ce oferă orientare pentru poziționarea corectă în sulcus.

Pentru a compensa astigmatismul, liniile de marcaj ale LIO (axa orizontală) trebuie să fie aliniate cu axa verticală/abruptă a corneei.



Exemplu LIO AddOn® torică:

refracția țintită nu a fost obținută



Pacientul: sph +1.75; cyl -1.50 90° post-operator - nefericit!

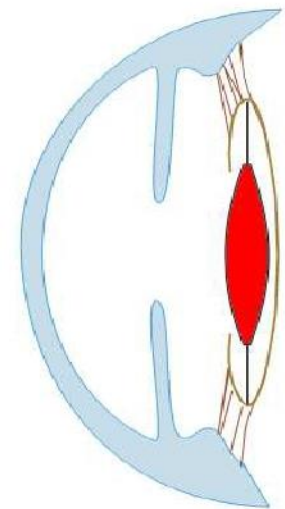
Pre-operator, Biometrie:

K1: 7.60 mm 90°; K2: 7.70 mm 0°

Lungime axială: 23.5 mm ACD: 3.2 mm

LIO implantată: B1AWY0 SEQ +19.5 dpt

Refracția dorită: SEQ 0,00



LIO Basis
+19.5 dpt

Post Operator:

Refracție subiectivă: sph +1.75 cyl -1.50 90°

Pre-Operator, Biometrie:

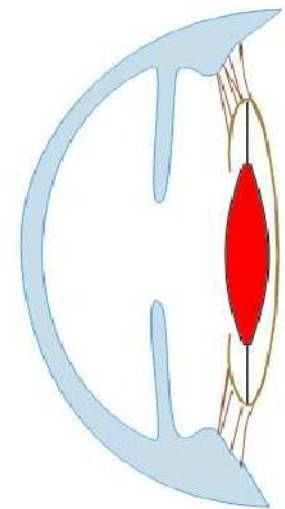
K1: 7.60 mm 90° K2: 7.70 mm 0°

Lungime axială: 23.5 mm ACD: 3.2 mm

Biometrie (pseudo-phakic):

K1: **8.00 mm** 90° K2: 7.70 mm 0°

Lungimea axială: 23.5 mm



LIO Basis
+19.5 dpt

K1/K2 este 0.3mm în loc de 0.1mm

aproximativ 1.8 dpt diferență!

⇒ **Calcularea dioptriei AddOn®**

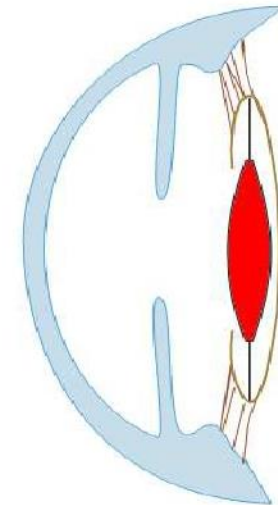
1.) biometrie

Software/Program de calculare a LIO

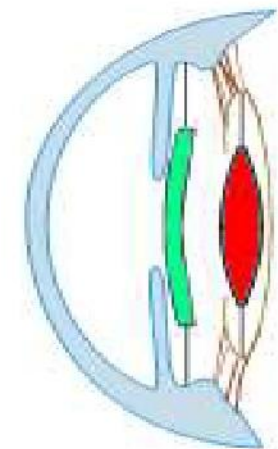
Lungimea axială 23.5mm, K1/K2 8.00/7.70mm

Țintă: +21.0 dpt, Cil. +2.25 dpt

⇒ Dioptria AddOn® = **SEQ +1.50 dpt**
Cil. +2.25 dpt



LIO Basis
+19.5 dpt



LIO AddOn®
SEQ +1.50 dpt
Cyl. + 2.25 dpt

LIO Basis
+19.5 dpt

= Ținta SEQ +21.0 dpt Cyl. +2.25 dpt

⇒ Calcularea dioptriei AddOn®

2.) bazat pe refracția subiectivă (verificarea plauzibilității):

Refracție subiectivă stabilă postoperatorie: sph +1.75 cyl -1.50 90°

⇒ SEQ: $1.75 \text{ dpt} + \frac{1}{2} \times (-1.50 \text{ dpt}) = 1.00 \text{ dpt}$
Cyl. 1.50 dpt

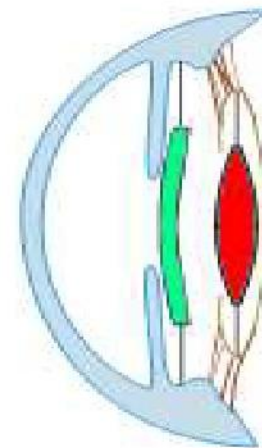
Factor AddOn® 1.35 (formula empirică)

Dioptria AddOn® = SEQ x 1.35
Cil. x 1.35

⇒ $1.00 \text{ dpt} \times 1.35 \rightarrow +1.50 \text{ dpt SEQ}$

⇒ $1.50 \text{ dpt} \times 1.35 \rightarrow +2.25 \text{ dpt Cyl.}$

LIO AddOn®
SEQ +1.50 dpt
Cil. + 2.25 dpt



LIO Basis
+19.5 dpt

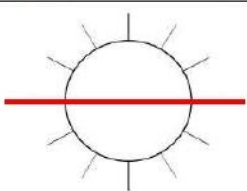
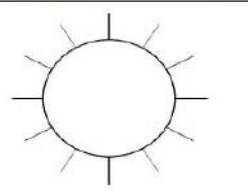
= Ținta SEQ +21.0 dpt Cyl. 2.25 dpt

Calcularea LIO AddOn®

Formulare de Calculație

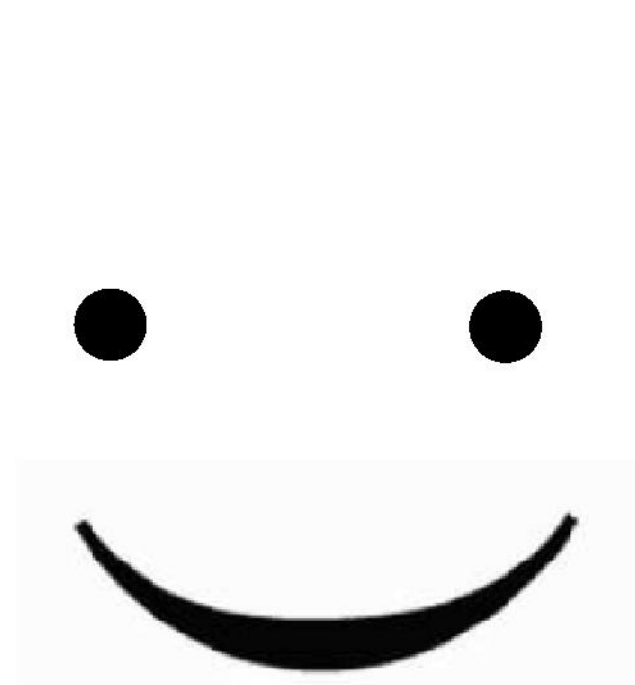
exemplu

LIO AddOn®
toric

AddOn®		Refractive		Diffractive		Toric		1stQ	
Calculation/ Order Surgeon		Please send form to 1stQ via fax or e-mail							
Dr. 1stQ		D	info@1sq.de						
Name		Country	Mail	Phone	Fax				
Please choose the IOL Model									
Refractive		A4SW00	*-10/+10 dpt		Diffractive		A4DW00	*0 dpt	
							A4EW00	*-3/+3 dpt	
							A4FW00	*-10/+10 dpt	
							A4FW00	*-10/+10 dpt	
							A4FW00	*-10/+10 dpt	
							A4FW00	*-10/+10 dpt	
* = refractive power/SEQ									
Patient Data - to be completed by the surgeon									
Name or ID-Nr.:					Date of birth:				
example - toric AddOn					15.06.2013				
Right (OD)					Left (OS)				
mm D axis					mm D axis				
K1 8,00 90°					K1				
K2 7,70 0°					K2				
Axial length 23,50					Axial length				
phakic ACD 3,20					phakic ACD				
pseudophakic ACD					pseudophakic ACD				
Standard keratometry index 1.3375					Standard keratometry index 1.3375				
If other:					If other:				
Standard biometry: IOL Master or A-Scan Immersion					Standard biometry: IOL Master or A-Scan Immersion				
If direct Ultrasound A-Scan contact:					If direct Ultrasound A-Scan contact:				
IOL model capsular bag sph cyl axis					IOL model capsular bag sph cyl axis				
B1AW00 19,5 dpt									
Subjective, stable postop refraction									
sph cyl axis BCVA					sph cyl axis BCVA				
1,75 -1,50 90° 1,00									
0,00									
Target refraction									
Manufacturers IOL power suggestion - for different theoretical target refractions									
Please note that the given target refraction depends on biometry accuracy and does not account for surgical induced astigmatism!									
Recommended IOL model:					Recommended IOL model:				
A4FW00									
theoretical target refraction					theoretical target refraction				
sph equ sph cyl axis sph cyl					sph equ sph cyl axis sph cyl				
0,03 0,05 +1,50 +2,25									
Comments:					Comments:				
Position of the toric IOL axis in: 0°					Position of the toric IOL axis in:				
									
Order - to be completed after IOL power selection									
sph cyl					sph cyl				
Yes No					Yes No				
Stand-by-IOL required?									



Înainte



**După implantarea
LIO AddOn® - fericit**



**Vă mulțumim pentru
atenție**

Backup



Contraindicații:

În afară de contraindicațiile non-specifice asociate cu orice tip de chirurgie oculară, următoarea listă non-exhaustivă de contraindicații specifice trebuie respectată:

- Microftalmia;
- Boli oculare active (uveită cronică severă, retinopatie diabetică proliferativă, glaucom cronic ce nu răspunde la tratament);
- Copii sub vârsta de 18 ani;
- Decompensare corneană sau disfuncție endotelială;
- Cameră anterioară cu adâncime mica;
- Pacienții pseudofaci cu LIO poziționată greșit sau fixată într-un sac capsular instabil;
- Imposibilitatea fixării în siguranță a LIO în locația dorită; ex. anatomie neregulată a corpului ciliar.

Adițional, pentru implantarea LIO AddOn® Diffractive:

- Pacienți cu tulburări oculare, altele decât cataracta, care ar putea cauza pe viitor scăderi de acuitate vizuală până la 0,66 sau chiar mai scăzută, la oricare dintre ochi;
- Pacienții care necesită tratament laser retinian;
- Pacienții la care nu se poate obține un astigmatism post-operator mai mic de 1,5 dioptri;
- Pacienții cu o LIO multifocală fixată în sacul capsular;
- Pacienții care necesită acuitate vizuală foarte bună în apropiere în zone de semi-întuneric;
- Persoanele care conduc noaptea pentru a-și câștiga existența sau aceia a căror ocupații sau hobby-uri depind de o acuitate vizuală foarte bună noaptea.

Cilindru Minus/Plus

Exemplu – același SEQ dar semne +/- diferite

	sferic		cilindru		
	+2.0	-1.0	90° Cilindru MINUS	SEQ = 1.5 dpt	
=	+1.0	+1.0	0° Cilindru PLUS	SEQ = 1.5 dpt	

Adăugați sfera și cilindrul cu semnul +/-

Întoarceți axa cilindrului cu 90° și schimbați semnul +/-

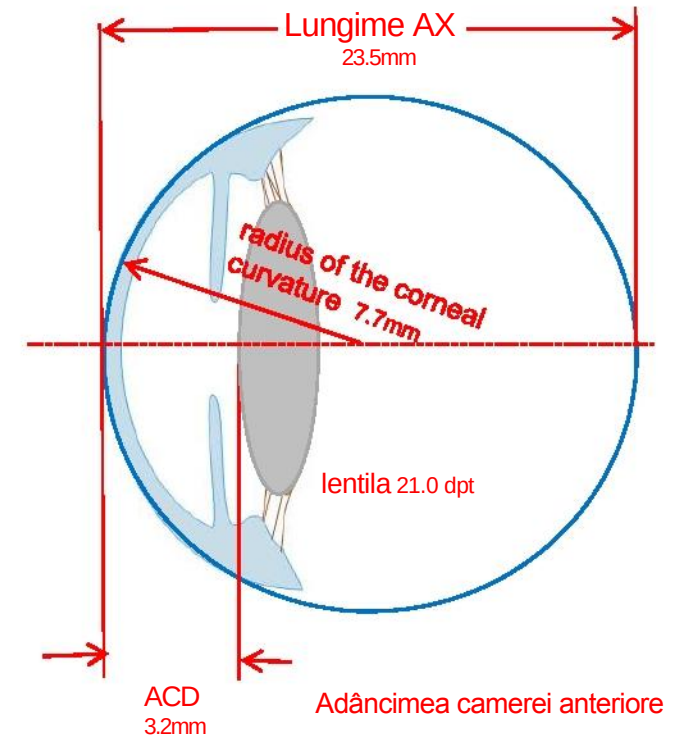
LIO torică cu Minus – alegeți aceeași LIO cu Plus dar întoarceți-o cu 90°

Calcularea LIO Basis - factori de influență, repetarea principiilor fundamentale:

- Razele de curbură ale corneei K1/K2 (mm/dpt)
- Adâncimea camerei anterioare(mm)
- Lungimea axială (mm)
- Constanta-A a LIO

Influență	Valori Standard	Δ	Influența asupra LIO	Influența asupra Refracției
Lungime axială	23.5 mm	1.0 mm	-> 3.5 dpt	-> 2.5dpt
Raze de curbură	7.7 mm 43.1 dpt	0.1 mm 1.0 dpt	-> 0.8 dpt - > 1.4 dpt	-> 0.5 dpt - > 1.0 dpt
ACD	3.2 mm	1.0 mm	-> 0.5 dpt	-> 0.3 dpt

Ochi cu măsurători standard:



Lungime axială > 23.5mm => miopic, IOL < 21.0 dpt
 Lungime axială < 23.5mm => hipermetropic IOL > 21.0 dpt
 Echivalent specic: dioptrie sferică + 0.5 x cilindru

Formula empirică: în mm x 6 = dpt
 Exemplu K1:7.30 K2:7.90: 0.6mm => 0.6mm x 6 = 3.6dpt

Calcularea LIO AddOn®

Raport Biometrie

Name: TEST PETER ID: Geb. Datum: 15.05.1938 Messdatum: 28.08.2012		ZEISS																			
		n: 13320																			
Please choose the IOL Model																					
Refractive A4SW00 *10/+10 dpt.		Diffractive A4DW00 *0 dpt +3.5 dpt near A4EW00 *3/+3 dpt +3.5 dpt near																			
		Toric A4TW0T *0 dpt Cyl. 1.50 - 4.50 dpt A4TW00 *0 dpt Cyl. 5.25 - 11.00 dpt A4FW0T *10/+10 dpt Cyl. 1.50 - 4.50 dpt A4FW00 *10/+10 dpt Cyl. 5.25 - 11.00 dpt																			
* = refractive power/SEQ																					
Patient Data - to be completed by the surgeon																					
Name or ID-Nr.:		Date of birth:																			
Right (OD)		Left (OS)																			
<table border="1" style="width: 100%;"> <tr><th>mm</th><th>D</th><th>axis</th></tr> <tr><td>K1</td><td></td><td></td></tr> <tr><td>K2</td><td></td><td></td></tr> </table>		mm	D	axis	K1			K2			<table border="1" style="width: 100%;"> <tr><th>mm</th><th>D</th><th>axis</th></tr> <tr><td>K1</td><td></td><td></td></tr> <tr><td>K2</td><td></td><td></td></tr> </table>		mm	D	axis	K1			K2		
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Axial length phakic ACD pseudophakic ACD		Axial length phakic ACD pseudophakic ACD																			
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sph cyl axis BCVA for standard vertex distance 12.0mm		sph cyl axis BCVA																			
Target refraction		Target refraction																			
Manufacturers IOL power suggestion - for different theoretical target refractions																					
Please note that the given target refraction depends on biometry accuracy and does not account for surgical induced astigmatism!																					
Recommended IOL model: A4SW00		Recommended IOL model:																			
theoretical target refraction		theoretical target refraction																			
sph equ sph cyl axis sph cyl		sph equ sph cyl axis sph cyl																			
Comments:		Comments:																			
Position of the toric IOL axis in:		Position of the toric IOL axis in:																			
Order - to be completed after IOL power selection																					
sph cyl		sph cyl																			
Yes No		Yes No																			
Stand-by-IOL required? (only available for toric model)																					
Date		Signature																			

1

2

3

AddOn®		Refractive		Diffractive		Toric		1st Q																			
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Order - to be completed after IOL power selection																											
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Yes No						Yes No																					
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