iTrace
COMBINATION RAY TRACING
ABERROMETER/TOPOGRAPHER

The iTrace as a Toric IOL Power Tool

There are dozens of diagnostic systems on the market that can help you with the calculation of a Toric IOL. There are even a couple of systems that can help you position a Toric IOL during the surgery. But there is only one system on the market that can help you post-operatively with a Toric IOL: the iTrace!

With the click of a button and with no dilation, the iTrace will tell you exactly where the Toric IOL sits in the eye and what you need to do in order to optimize the result: do you need to rotate the IOL? What refractive result is predicted if so? Or do you need to consider an Add on IOL or even an IOL exchange?

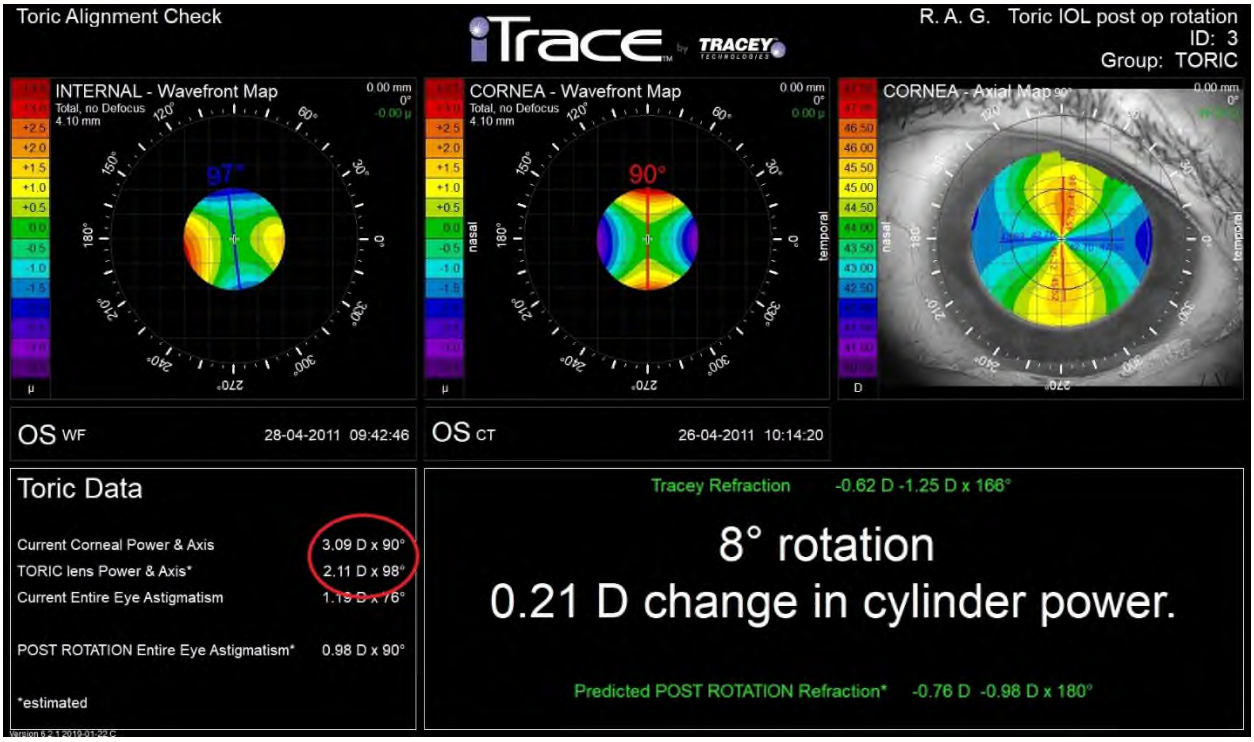
These are decisions that are not lightly made and could inflict serious costs and disappointments.

The next patient cases will show you how the iTrace Toric Check is easy and indicative.

Patient #1

This patient was unhappy after Toric IOL implantation and we can see that the Toric IOL is 7 degrees off its ideal position. So what do we need to do? Rotate?

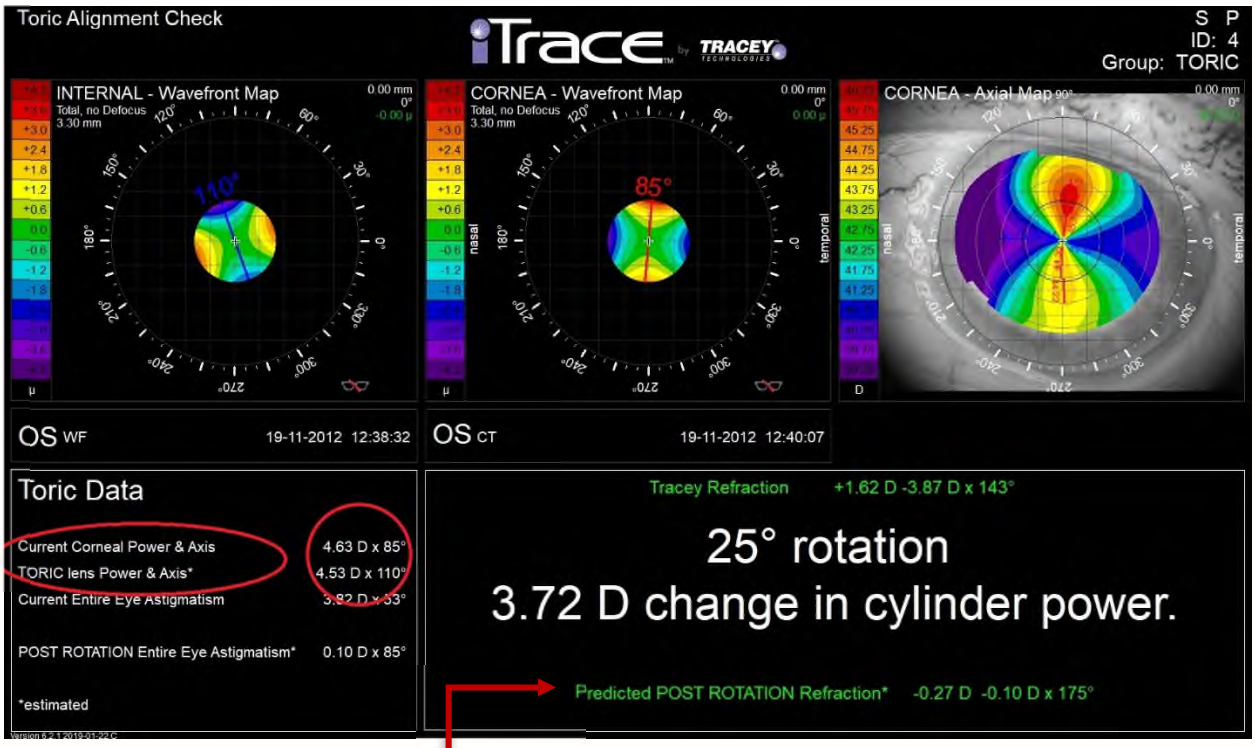
By using the Toric Check function, the iTrace can show you that rotating that IOL to its prime position will not make the patient happy. The under-correction is the main culprit and you should consider an Add on IOL, a PRK or an IOL exchange to the correct power. You can see that the power of the toricity of the Toric IOL (2.11 D) does not match the power of the Astigmatism on the cornea (3.09 D). Knowing this before your start to rotate the IOL could save you time, money, and surgical risk.



Patient #2

This is a straightforward case where the Toric IOL has moved off axis. Recall that the Toric IOL could potentially move until two weeks after the surgery (and up to 3 weeks if you use a capsular tension ring)!

The Toric Check page shows you that the power of the Toric IOL matches the power of the cornea. You can be confident in explaining to your patient before you go back in to rotate that the result will be good.

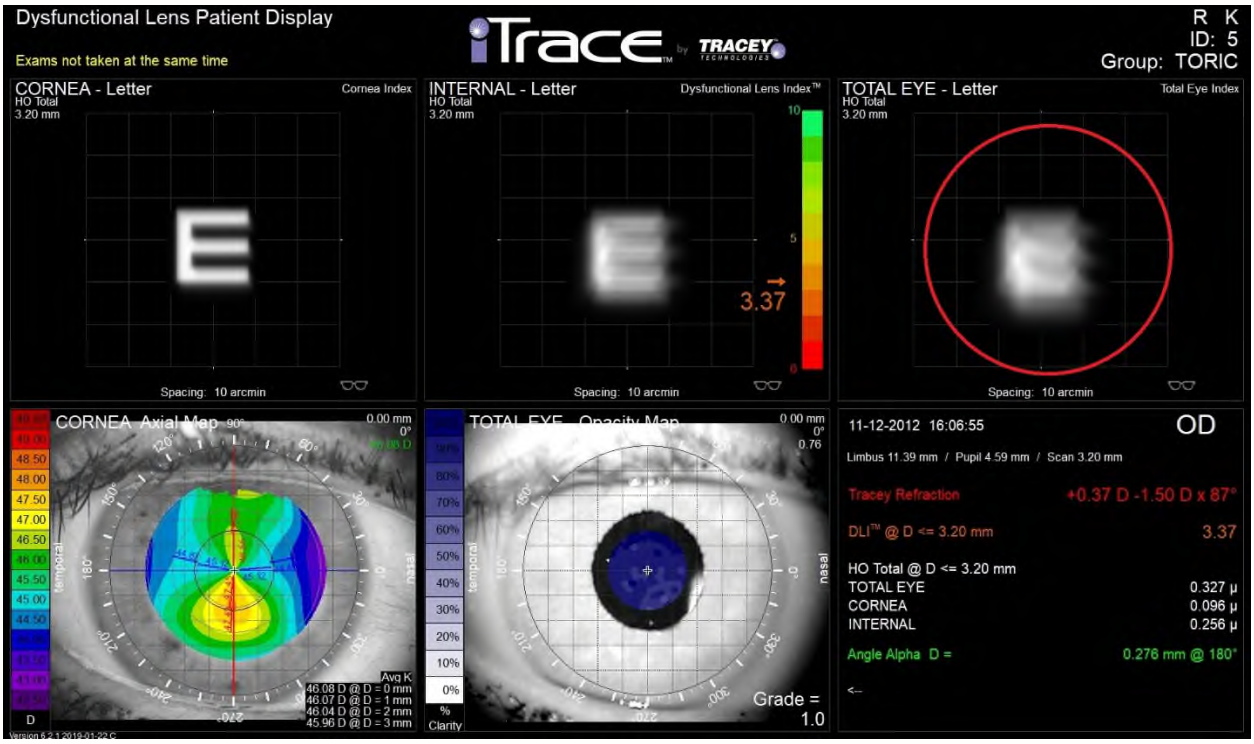


This is the predicted POST OP refraction: or the refraction after you rotate that Toric IOL and everything goes as planned.

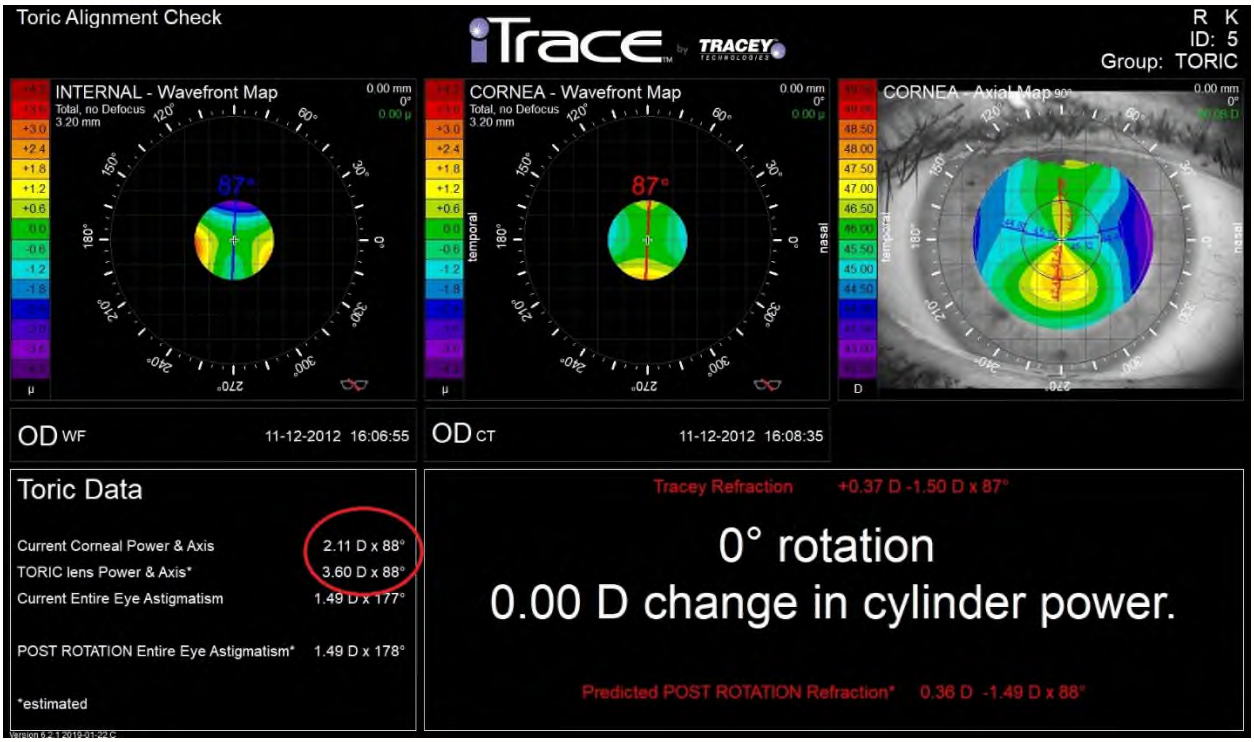
Knowing the predicted outcome before you consider a repositioning is extremely beneficial for your decision-making process.

Patient #3:

This patient is unhappy with his Toric IOL because this is what he sees…



And the reason for this poor vision is that his Toric IOL has the wrong power. It is 1.50 Diopters too strong, even though it sits at the perfect position.



When you look at the corneal topography, you will notice that this is asymmetric astigmatism and you should calculate this with caution and not just enter your Biometer data in a planner.

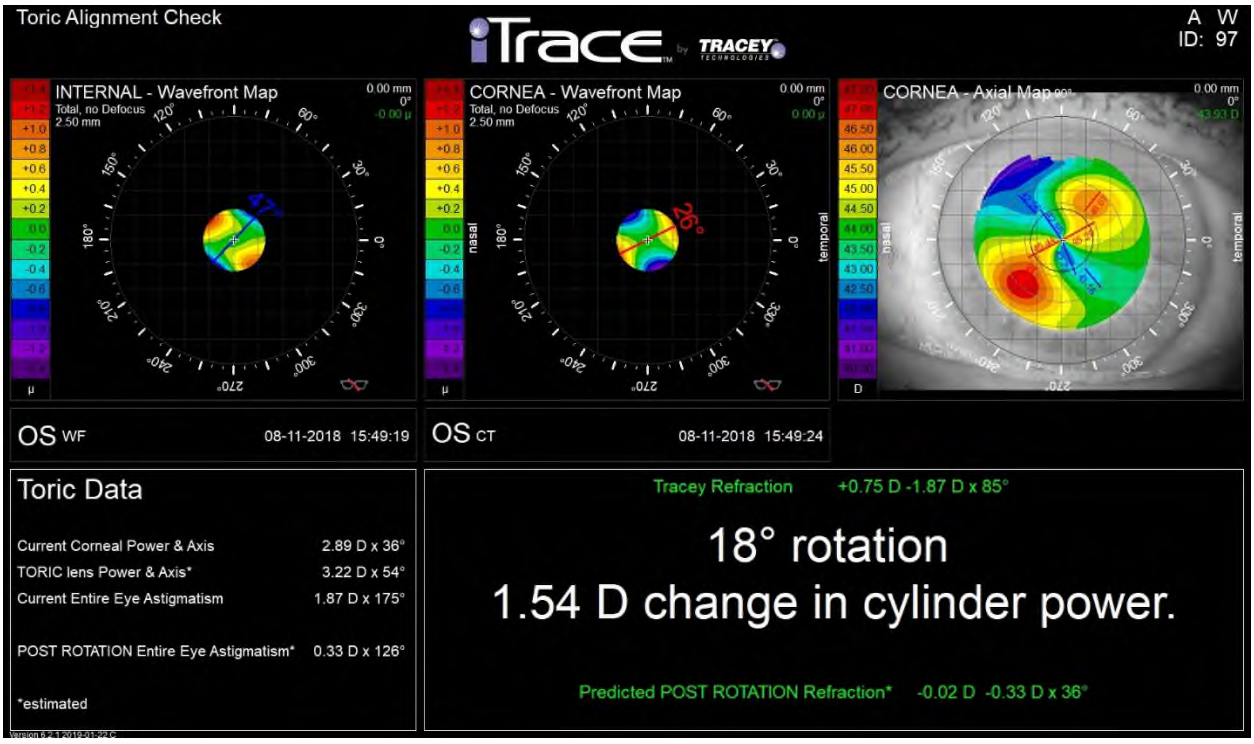
So, you may think: "I got this. I can do this without an added diagnostic device. What is wrong with dilating a patient, looking with my slit lamp and then using an online calculator like astigmatismfix.com?" Well, the next patient explains exactly why you should have an iTrace anyway…

Patient # 4:

This patient is not happy after her cataract surgery with a Toric IOL. After dilatation, the surgeon finds that the Toric IOL is sitting at 47 Degrees, exactly what the iTrace shows. However, the iTrace tells her that the Toric IOL should sit at 26 Degrees instead.

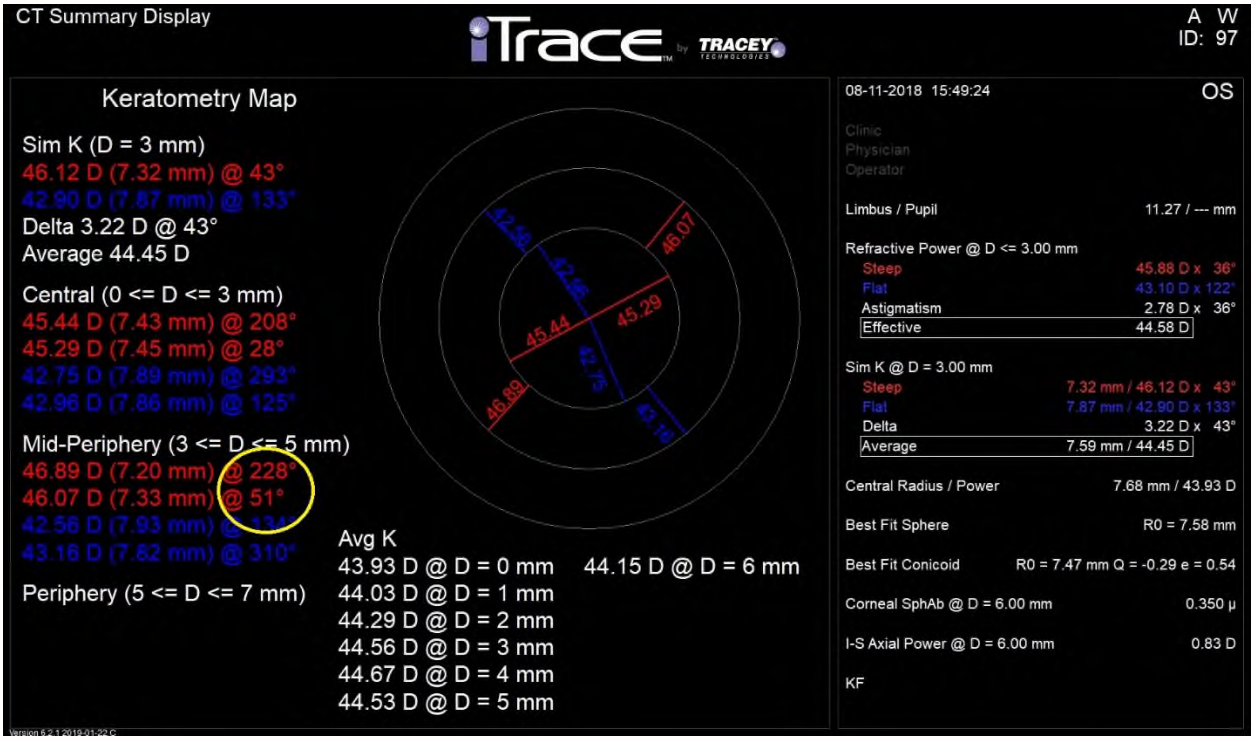
This is contradicted by her new IOLmaster 700 (an exchange from the previous IOLmaster 500), the Pentacam HD and the old Orbscan that was still hanging around in the building. All these diagnostic devices told the surgeon the Toric IOL should sit at 52 Degrees!

So the Toric IOL was planned at 52 Degrees and now sits at 47 Degrees. That is not a bad outcome mathematically but the patient is unhappy nevertheless.



This is the moment that fantasy comes into play: this could be one of these elusive retinal astigmatisms!! Nobody has ever seen one but it could be there! Or a capsular astigmatism! Or even better: the back of the cornea…

Actually the answer is not so spectacular and in fact is plain and simple. Traditional diagnostic devices always measure at a certain predefined distance from the pupil whereas the iTrace measures relative to the patient's actual pupil. The iTrace also indicates 52 Degrees on the Keratometry map below but the patient has a pupil of only 2,5mm and needs to have the astigmatism corrected within the pupil at 28 Degrees!



The iTrace will not only help you with the easy cases but more important, it will eliminate any doubt that you might have in choosing the right therapy and treatment for your patients.

Toric IOL treatment is a blessing for the patient and Torics are becoming the standard of care. It does not help to modernize your IOLs if you do not modernize your diagnostic capabilities.

The iTrace is your TORIC and PREMIUM IOL Workstation for now and for the future.

Learn more by viewing our iTrace University video library.

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