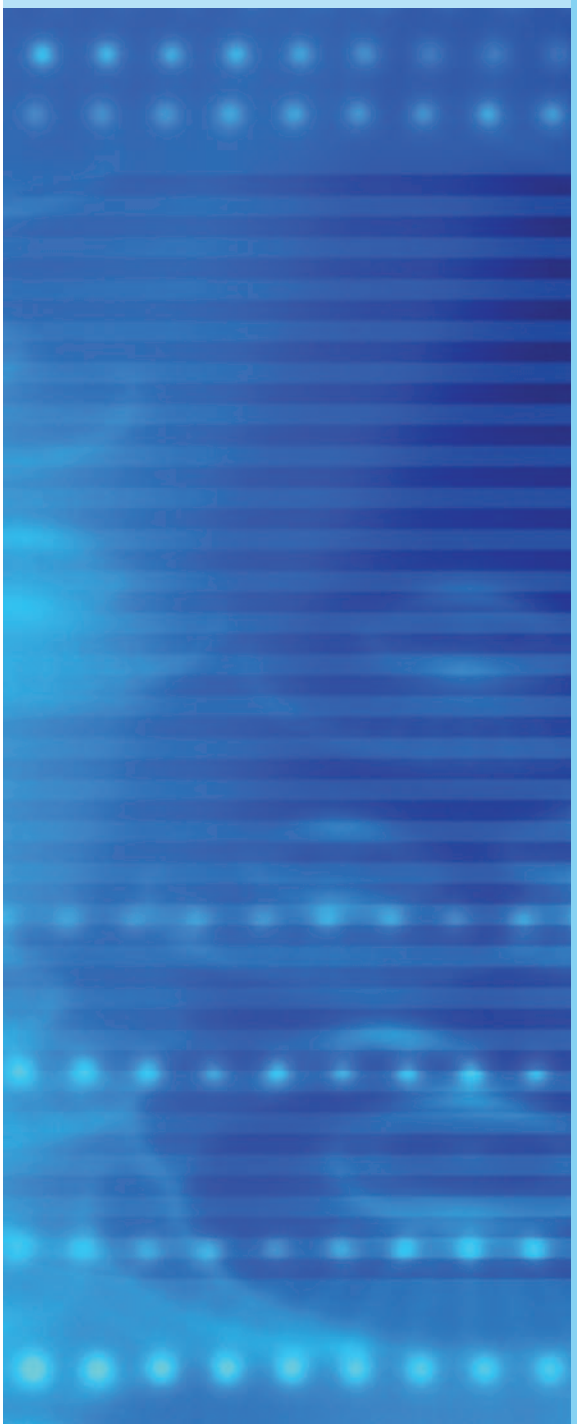


The BE Retainer™ System Certification Course

Supplement

Bausch & Lomb
Vision Shaping Treatment™

The BE Retainer™ System for Vision Shaping Treatment Certification Course

Welcome to the BE Retainer System Certification Course. This handout is designed to accompany the online or in-person certification process for this exciting product for contact lens corneal reshaping.

This handout supports the presentation you will watch that introduces you to Bausch & Lomb Vision Shaping Treatment™ for the temporary reduction of myopia and will provide you information and certify you on the BE Retainer System.

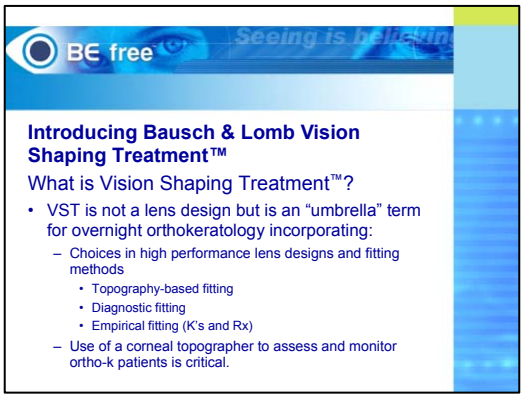
Please keep in mind that this certification test is not meant to take the place of detailed training on overnight orthokeratology and the BE Retainer System.

Additional ongoing training is advised to increase your knowledge in managing patient care in this modality.

In June 2004 Bausch & Lomb acquired a premarket approval for the Boston® Orthokeratology Lens.

This is being marketed in the United States as the Bausch & Lomb Vision Shaping Treatment, or VST, for overnight orthokeratology using Boston® Equalens® II (oprifocon A) lens material.

Additionally, in December of 2004 a supplemental fitting approval that encompasses the use of corneal topography and/or software based designs was also received from the FDA



It's important to note that Vision Shaping Treatment is not a lens design, but instead is a term to describe methods and designs for overnight orthokeratology. With regards to vision shaping treatment this means that you have choices in high performance overnight

orthokeratology lens designs and fitting methods and the use of the high Dk Boston Equalens II material. Presently there are 4 designs that are being marketed under the Vision Shaping Treatment banner.

A unique feature of the Vision Shaping Treatment is that it offers you the flexibility to choose the fitting method that best suits you and your practice style. We will describe each of these in a moment.

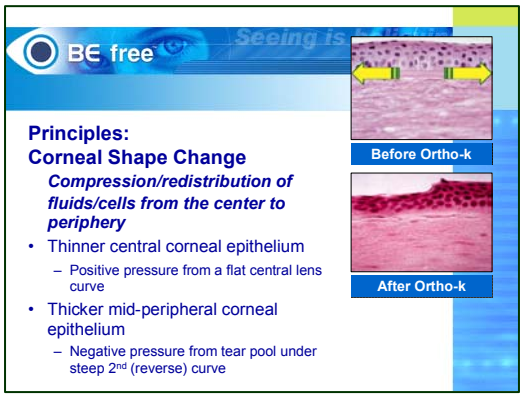
While corneal topography may not be necessary to select the initial lens in some of the vision shaping treatment design offerings, topography is considered essential to properly evaluate the ongoing progress in all designs.

The Boston Equalens II material has been available for a number of years in North American and has been FDA approved for extended wear since 1991.

It provides a significant amount of oxygen exchange having a Dk of 85 as measured by the ISO/Fatt polarographic method. Importantly, Equalens II provides excellent on-eye wetting resulting in a decrease of debris and surface deposit buildup.

Uniquely, Boston Equalens II materials for overnight orthokeratology are available in distinctive colors to allow patients to easily discern which lens belongs in which eye.

A RED lens is used for the right eye and a YELLOW lens for the left. This allows the wearer to easily determine the proper lens for each eye and also ensures the prescriber is receiving the Boston lens material they expect.



In vision shaping treatment the change in corneal shape results from forces exerted on the tear film between the back surface of the lens and the cornea. causing a gradual and steady compression and possibly a redistribution of fluids and epithelial cells under the lens from the center toward the periphery.

Specifically, the central corneal epithelium becomes thinner as a result of positive pressure under a flat central curve of the shaping lens, while the mid periphery becomes thicker due to the negative created by the annular tear pool under a steeper second or reverse curve.

The back optic zone radius, also termed BOZR or base curve, is the first curve of Vision Shaping Treatment designs.

Calculated to be flatter than the central corneal radius, this curve provides positive pressure resulting in compression of the central corneal epithelium.

Generally the back optic zone diameter – termed BOZD - ranges from 6.0 to 8.0mm depending on the specific design – creating a treatment zone of 5.0mm or more.

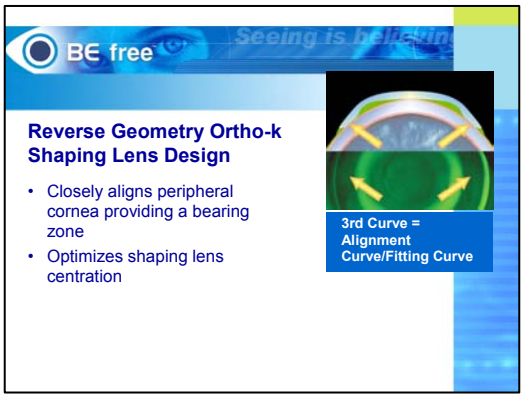
Unlike the base curve in traditional GP designs this BOZR is used only to flatten the cornea and is not considered a fit factor.

The second curve is most often termed the reverse zone and typically has a radius of 0.5mm to 1.0mm or is 3 to 5 diopters or more steeper than the back optic zone radius.

It forms an annulus shaped tear reservoir surrounding the central flat zone, inducing negative pressure

The reverse zone provides an area for the epithelial cells and intracellular fluid to collect.

This zone, comprised of one or more curves, is typically 0.6 to 1.0mm wide depending on the design of the shaping lens.



The third zone is the alignment zone.

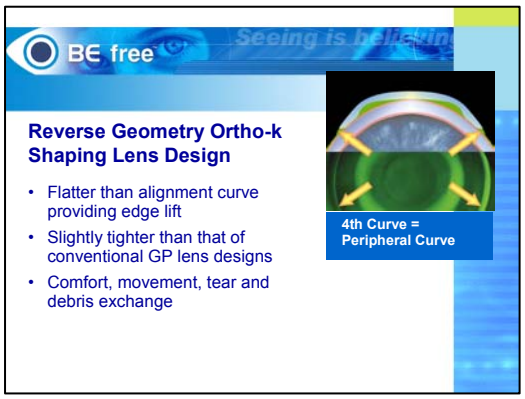
This area is flatter than the reverse curve area and closely aligns the peripheral cornea providing a bearing zone to help the lens to center.

Its main function is the optimizing of lens centration.

The fitting relationship can be modified by altering the angle or radius of the curve or curves, thus improving the lens centering characteristics.

It is generally 1.0 to 1.5 mm wide depending on the lens design.

The 4th curve or peripheral edge curve is flatter than the alignment curve, but slightly steeper than that of conventional lens designs - providing an edge lift adequate for lens comfort and movement, along with tear and debris exchange.



It is useful to understand the relationship between units such as microns, millimeters and diopters as these are the most commonly used to describe lens design.

Let's start the BE Retainer System Certification process. Here are the directions for completing your Answer Sheet.

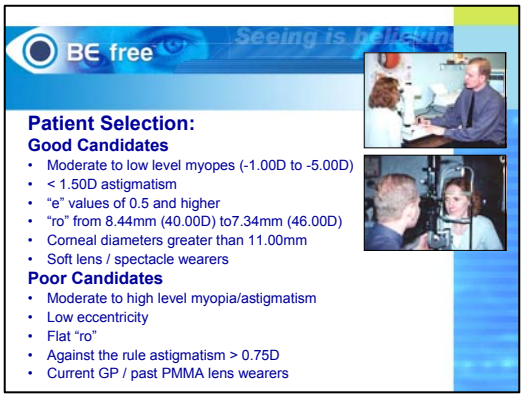
- *Be sure to completely fill-out the personal information at the top of the answer sheet. PLEASE PRINT LEGIBLY*
- *Choose the **best** answer from among those offered*
- *Mark your choice on the answer sheet by completely coloring-in the circle on the answer sheet*
- *If you decide to change your answer draw an "X" through the answer you do not want to be counted*
- *You will have approximately 30 seconds to complete each of the questions.*

Question 1: In which direction are the fluids and cells compressed or redistributed when a vision shaping treatment lens is worn?

Question 2: What is the value of topography in the course of ortho-k treatment?

Question 3: What is the function of the second fitting/reverse curve of the ortho-k shaping lens?

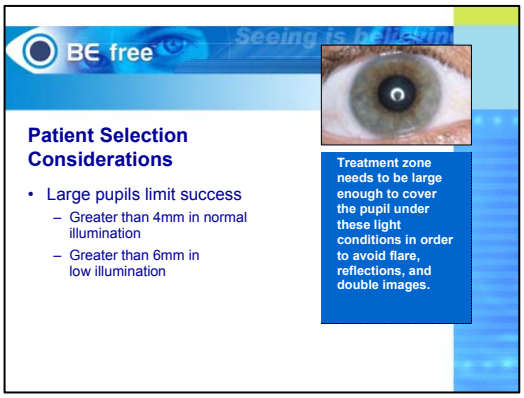
Question 4: What is the function of the third or alignment curve of the ortho-k shaping lens?



The range of myopic correction reduction approved with Vision Shaping Treatment is -1.00D to –5.00 Diopters.

The most successful ortho-k candidates are moderate to low level myopes whose corneal shapes have "e" values of 0.5 and higher, an apical radius measurement between 40.00 and 46.00 diopters and corneal diameters greater than 11.00mm.
Beware of those patients with higher amounts of myopia, low corneal eccentricity measurements and flat corneas. Against the rule astigmatism greater than three quarters of a diopter can also be problematic, in that this reshaping process may induce even higher amounts of against the rule astigmatism. These types of patients may not be as well-suited for vision shaping treatment.

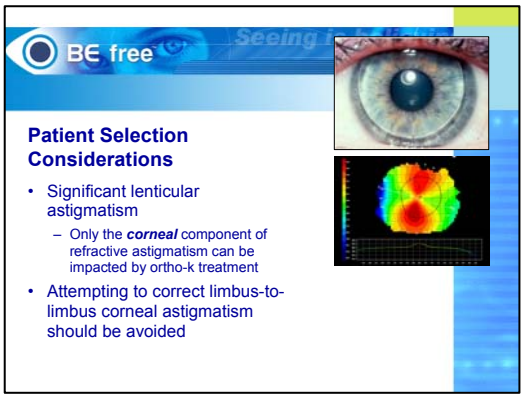
Also, proceed with caution with previous GP and PMMA lens wearers. These patients should remain out of their lenses until the corneal and refractive measurements have stabilized, often 2 to 4 weeks or more.



Evaluate the pupil size accurately in both normal and dim illumination.

Depending on the amount of attempted myopic reduction, the expected treatment area in overnight orthokeratology is usually 5 to 6mm in size.

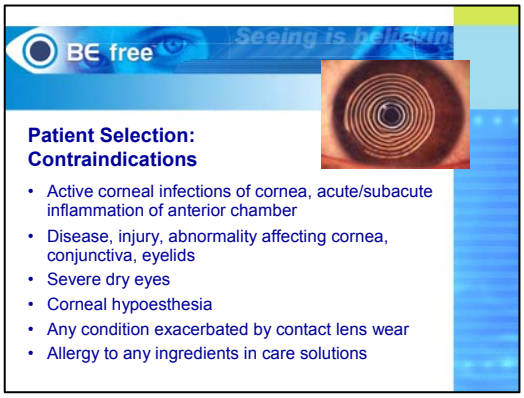
Therefore, patients with pupils greater than 5mm in normal illumination and/or greater than 6mm in low illumination may not be suitable candidates. Large pupils may result in haloes, glare, or peripheral distortion in dim lighting conditions.



The effectiveness of ortho-k treatment is reduced where there is significant internal or lenticular astigmatism.

Note any potential residual astigmatism by comparing the cylinder component of the spectacle Rx to the amount of corneal astigmatism measured by central keratometry. Since vision shaping treatment affects corneal astigmatism only, avoid cases where residual astigmatism may be greater than 0.75D.

Also, limbus-to-limbus corneal astigmatism may result in a less effective ortho-k procedure. In these cases the fitting relationship is altered in the periphery and lens rocking may occur. Visually, the net result is that full myopic reduction is not achieved or the treatment regresses quickly.



It is advisable to avoid those patients that have any active ocular infections.

Patients with severe corneal irregularity from injury, surgery or a condition such as keratoconus or a corneal dystrophy should also be avoided.

Also note patients who have demonstrated an allergic response to lens care products that would be used in vision shaping treatment.

Question 5: What is the generally accepted maximum "against-the-rule" astigmatism that can be attempted with ortho-k fitting?

Question 6: What is the maximum amount of myopic reduction that Vision Shaping Treatment is approved for by the FDA?

Question 7: Why may patients with large pupils experience problems with ortho-k?

Question 8: Why is lenticular astigmatism a potential problem when fitting ortho-k shaping lenses?

Patient compliance is an important factor in the success of Vision Shaping Treatment patients. Here are a few important tips.

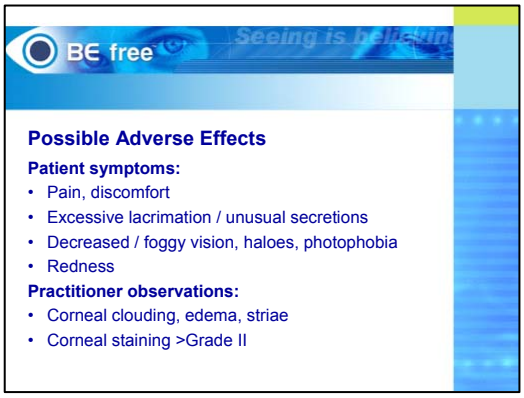
There is no need to remove the shaping lenses if awoken during the night - but upon awaking in the morning it is advisable that patients instill a few drops of the recommended rewetting solution and wait a few minutes before attempting to remove their lenses.

Of greatest importance is that the patient should check that the shaping lens is moving prior to lens removal.

While removal of Vision Shaping Treatment lenses is usually not a problem for the patient in some cases, due to the larger lens diameter, it may be necessary to employ the use of a DMV lens remover.

Be sure to advise your patients to contact your office if they have difficulty removing the lenses.

Also, remind the patient to use only the



recommended approved GP lens care products with their Vision Shaping Treatment lenses.

Patients should be advised to discontinue reshaping lens wear and call your office immediately if they experience pain, discomfort, excessive tearing or any of the other symptoms described on this slide.

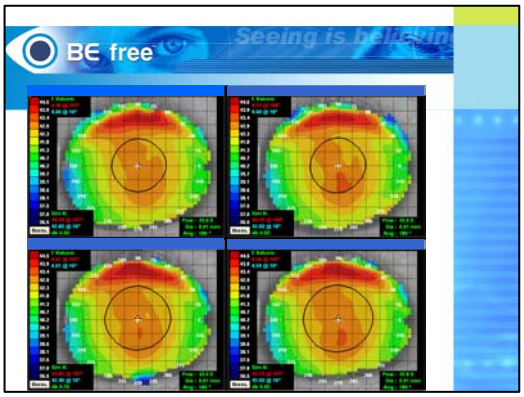
Vision shaping treatment should also be discontinued if you observe any corneal hypoxia or staining greater than Grade 2.

Question 9: Which patient symptoms with vision shaping treatment are of most concern to the contact lens practitioner?

Question 10: What is the most important observation that the wearer should make prior to attempting removal of their ortho-k shaping lenses after waking?

Now that we have discussed some general principles regarding Vision Shaping Treatment let's look at the details of how the BE Retainer System works.

BE Retainer treatment starts with determining if the patient is a good candidate. Evaluate motivation and commitment to the fitting process. Then, ocular and medical history, eye health evaluation, (that includes refraction), and topography should also be taken at this visit.



The next step is to capture accurate topographical maps to determine the initial BE Retainer diagnostic. Take four totally independent captures on each eye, then analyze the symmetry of the captured maps.

Poor quality maps, called rogue maps should be discarded and only the most accurate maps used to extract design data.

Remember that topographers measure the tear film not the actual corneal surface. So, it is possible with inconsistent tear film and tear break up for the topographer to take rogue readings.

To practice BE Retainer Optimal Orthokeratology, there are 3 corneal values required to calculate the initial diagnostic for overnight trial:

The first value required is the apical curvature – also known as "R" "O", or the radius at zero distance from the apex. This can be derived from the Axial topography map

The second value is the sagittal height of the cornea. If your particular topographer does not measure sagittal height, the shape factor or eccentricity readings can be used instead.

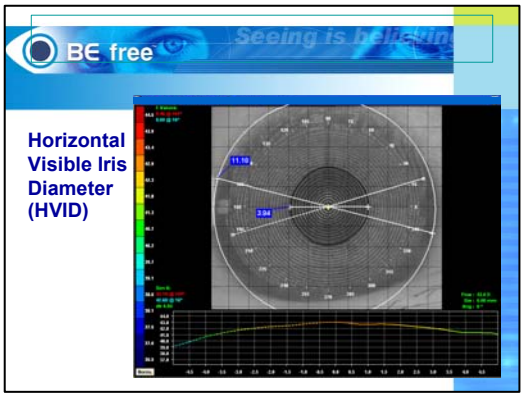
The only other corneal value required is the horizontal visible iris diameter or HVID.

Using the Medmont topographer, any number of baseline maps can be displayed and averaged to extract the apical curvature and sagittal height required.

You can also note the standard deviation error. This figure is an excellent aid to determine if the maps captured are valid. If the standard deviation error is high, the topographer is indicating that from map to map, there was a difference in shape between captures.

In this case, consider taking additional maps and deleting the ones that are different or extreme. Once accurate topography readings are acquired, the corneal data will be input into the BE Retainer fitting software.

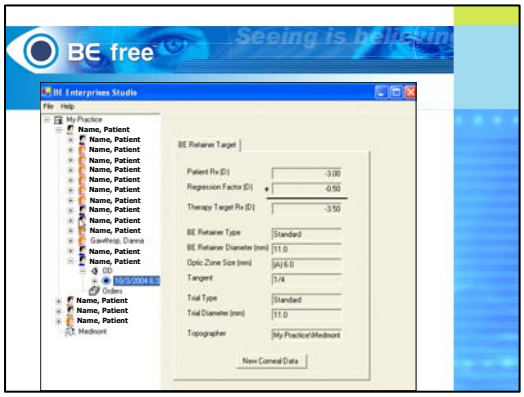
Topography is critical to the success of fitting the BE Retainer because: it calculates the myopia reduction potential, helps to determine the initial trial and the first fit success, plus it monitors the corneal changes over time



If you are using a Medmont topographer, the horizontal visible iris diameter "HVID" can be taken by measuring the cornea from limbus to limbus using the on-screen map.

Question 11: Why is topography so critical?

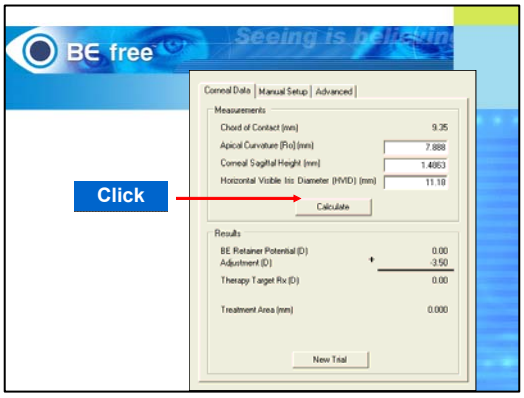
Question 12: What are the 3 critical corneal measurements required to practice BE Retainer Therapy?



The BE Studio Software will calculate the ortho-k myopic reduction desired. An additional -0.50D power will automatically be added as a regression factor.

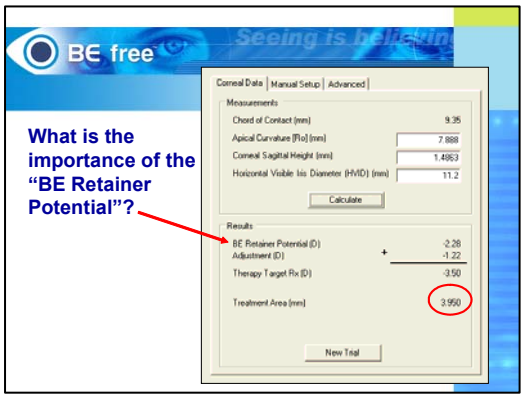
This will ensure that the patient is able to enjoy excellent device-free visual acuity all day long.

Additionally, if the patient has a lower myopic correction or exceptional ortho-k treatment retention, a reduced wear schedule may be possible.



This is the corneal specification screen. Entered here are the apical curvature, sagittal height, and the HVID that was derived from the topographer.

Once this data has been added, select the "Calculate" button



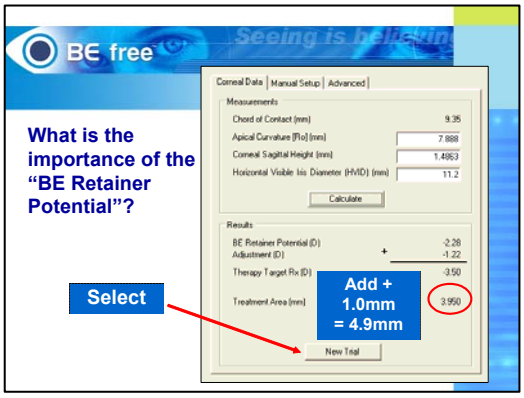
This is the most important screen in the BE Studio software.

The "BE Retainer Potential" figure indicates the myopic reduction potential and helps the practitioner to decide whether a patient will be a good candidate for ortho-k treatment.

In this particular case, this eye shows orthokeratology potential of -2.28 D. With a target correction of -3.50D.

Typically, an additional -1.00D correction can be expected to be achieved over the estimated potential.

Any correction greater than this may not be possible. In the case shown here, the patient is <u>not</u> an ideal candidate for ortho-k treatment.

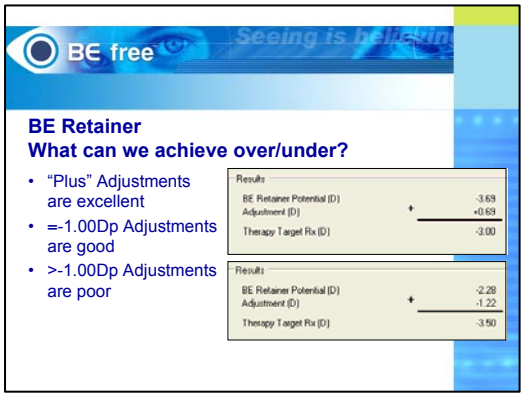


Other information the BE studio software provides is the predicted treatment zone size. This is important where pupil size in concerned.

It is recommended to measure pupil size in dim illumination. This will give an indication of the minimum treatment zone size required in order to avoid flare and glare.

Add 1mm to the treatment area measurement to arrive at the actual predicted outcome for this particular patients BE Retainer treatment zone size.

If it is determined that the patient is a good candidate in terms of myopic reduction potential and treatment zone size, select "New Trial" in the BE software program.



Any patient requiring an adjustment factor of plano to -1.00D is considered to be a good candidate.

Based on the studies of corneal shape and the mechanics of the BE Retainer, achieving target correction in this instance is within prediction.

However, any patient requiring an adjustment greater than -1.00D is considered outside the BE Retainer correction potential and the patient is considered to be a poor candidate.

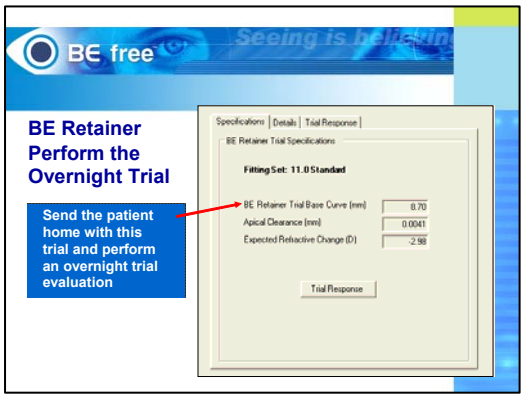
The ability of the BE system to predict orthokeratology treatment potential will greatly assist in determining good candidates from those who should not be considered.

For good candidates, the BE System will ultimately predict the effectiveness of the process and potential for treatment success.

Question 13: After entering the corneal data, the BE software calculates a "BE Retainer Potential". Why is this figure important?

Question 14: When the adjustment to the "BE Retainer Potential" figure predicted to achieve target Rx is over -1.00D, the patient is not an ideal candidate.

Once the patient is determined to be a good candidate, calculate the initial BE Retainer diagnostic.

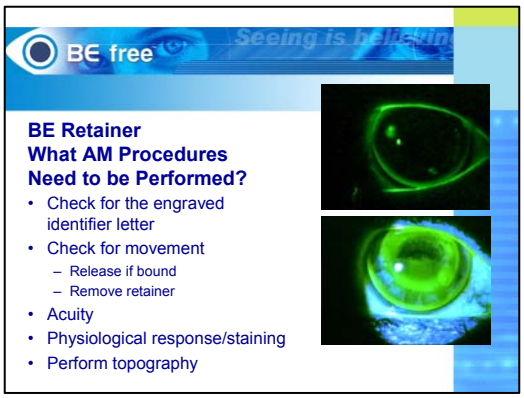


In this particular case, the BE Studio Software has selected a diagnostic with a base curve of 8.70 mm. as the ideal trial for this cornea.

Select the recommended trial from your BE Retainer diagnostic set and begin the overnight trial evaluation. The patient should be instructed on proper insertion and removal techniques before being allowed to take the diagnostic home for the overnight trial.

Advise the patient to instill several drops of the recommended wetting solution before inserting the diagnostic, immediately prior to sleeping.

It is very important that after the first night of wear, the patient returns to the practitioner's office early in the morning wearing the BE Retainers.



It is critical for the overnight trial evaluation that the patient be examined early the following morning.

During this morning visit, the following should be observed:

First, check that the correct letter engraving is on each retainer to rule out that the patient has not switched the diagnostics before insertion the prior night.

Next, check to see that the retainer is moving. If bound, instill the recommended rewetting solution and have the patient look up. With a finger on the lower eyelid, press on the sclera three times. Then have the patient look down and press with a finger on the superior lid and sclera three times. Check that the retainer is moving. If it is not moving, repeat the same procedure.

After that, check unaided VA and over-refract

Next, check the physiological response, staining, and any signs of adverse events.

Finally, take a post-wear topographical map. This will provide the most information about the overnight ortho-k treatment effect.

In terms of the topographical response, overnight wear of the BE Retainer trial will usually yield one of three types of topographic maps.

If the initial topography data was highly accurate, the software will select the ideal BE Retainer diagnostic. This will result in a perfectly centered topography effect called a "Bulls-Eye".

If the topographer over-estimates corneal height, the diagnostic selected will have a sagittal height that is too steep for the cornea. The result will be a Central Island. This response will require a repeat overnight trial using a diagnostic with lower sagittal height.

If the topographer under-estimates the corneal height, the trial selected will have a sagittal height that is too low for the cornea, resulting in a "Smiley Face" topography map.

A Smiley Face topographical response will require a repeat overnight trial using a BE Retainer with an increased sagittal height.

The BE Retainer overnight trial provides the following critical information:

First, the BE Retainer diagnostic will confirm the accuracy of the topographer's corneal data measurement.

Second, it allows the practitioner to observe the physiological response following overnight orthokeratology wear and rule out any poor responders immediately.

Third and most important, the overnight trial provides an opportunity to achieve the ideal response with a patient before investing in a custom retainer order.

When a bulls-eye topography is achieved it will result in a measured refractive change that is used to design the ideal custom BE Retainer.

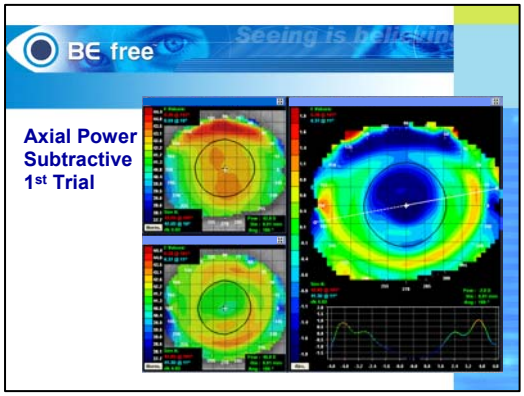
The overnight trial also provides the patient with a sample of the orthokeratology experience and the amazing visual improvement that can be achieved in just one day, even if that change does not result in immediate 20/20 visual acuity.

Not only does the overnight BE Retainer trial yield very valuable clinical information regarding the response to orthokeratology, but it is also an excellent way to build excitement and secure the patients' commitment.

Question 15: What is the purpose of the overnight trial evaluation?

Question 16: Should the trials result in 20/20?

Question 17: What are the 3 major topography responses that may result from Optimal Orthokeratology wear as demonstrated by these topographical maps?



Post-wear topography consists of evaluating the Subtractive or Difference maps.

On the top left is the baseline corneal map which is subtracted from the post treatment map in the lower left. On the right side, the subtractive map provides a representation of the change in curvature when the baseline shape is subtracted from the post-treatment.

The subtractive or difference map is the best, and really the only way to analyze the post ortho-k effect following overnight wear of trials or custom Retainers.

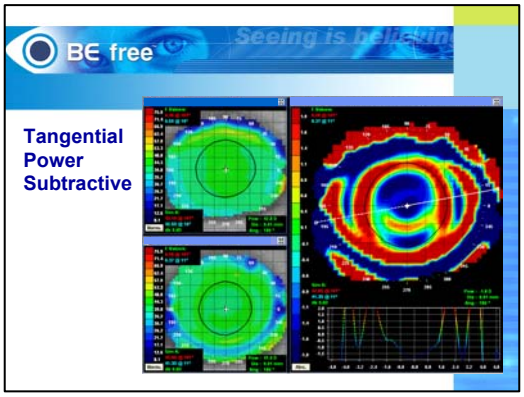
This Axial Map provides the practitioner with 2 important pieces of information.

First, it indicates the amount of refractive change. By clicking on the corneal apex of the map, the post-wear change in corneal curvature should provide a 1:1 relationship with the change in refraction.

The Axial Subtractive map also indicates the position of the treatment zone in relation to the pupil.

In this case, you can see the BE Retainer diagnostic centers well and the treatment zone is well positioned in relation to the pupil.

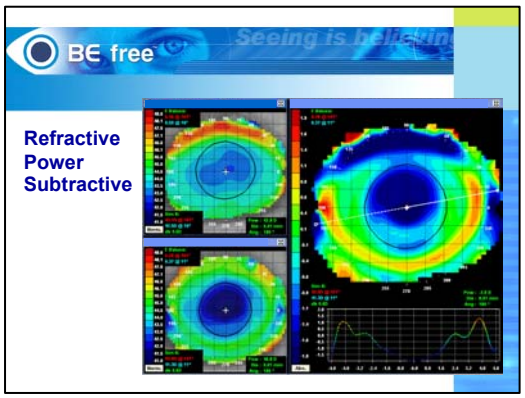
This diagnostic has provided the patient with a 2 diopter reduction in myopia in just one night.



The next map used to analyze topographical response is the Tangential Power map. This map shows the exact position of the BE Retainer during overnight wear.

Of particular interest is the red ring of paracentral steepening in relation to the pupil. In this case, the red area of steepening is parallel with the black pupil margin.

If there is uncertainty regarding the centration by looking at the red ring of paracentral steepening, look at the blue ring just outside of it.



The last map used in analyzing the BE Retainer effect is the Refractive Power map.

This map looks very similar to the axial map and will similarly provide the refractive change and position of the treatment zone in relation to the pupil.

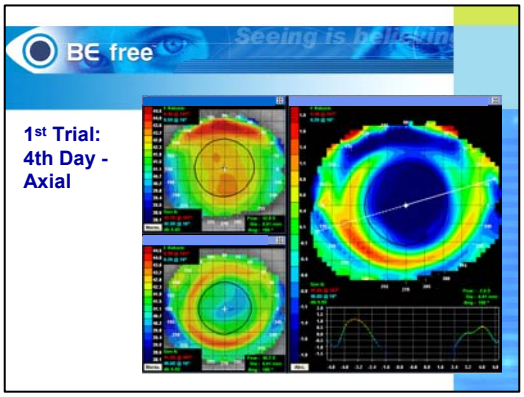
However, compare the power of the cornea on the baseline map in the upper left versus the position of effect on the post treatment capture in the lower left.

The refractive power map provides information on where the effects of refractive change are post treatment in comparison to the baseline corneal power. In this particular case, you can see the post treatment effects appear well centered to the pupil.

Looking at the subtractive map representation on the right screen, the Refractive map will also allow measurement of the treatment zone size more accurately than Axial or Tangential maps.

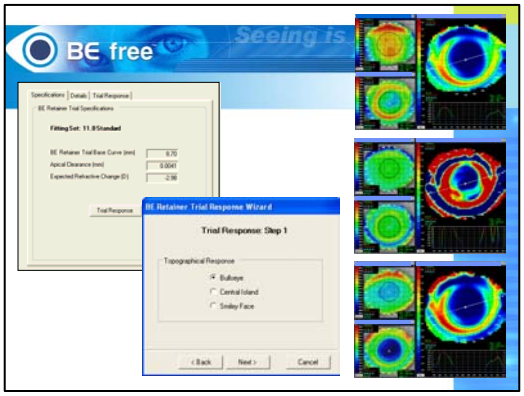
This example represents the results after only one night of BE Retainer trial. So the consistency of the effect across the pupil zone and the myopic change are not complete. Remember - the full orthokeratology effect takes 7-10 days.

If a one night response is inconclusive and you would like to prove out the result, continue the same trial for additional consecutive nights wear.



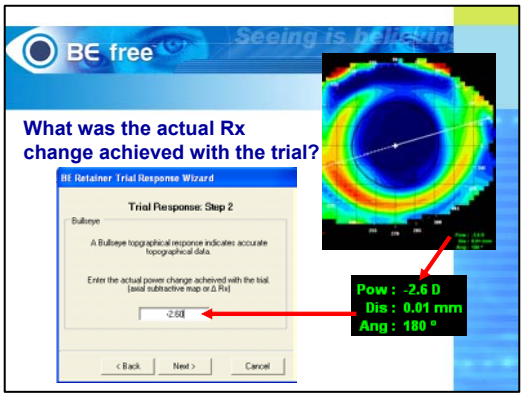
For this patient the one-night wear effect gave the appearance of the beginnings of an excellent bulls-eye result, so in this case, the practitioner had the patient continue the overnight trial for another 3 consecutive nights.

Note the consistency and uniformity of the treatment zone after 4 consecutive nights of wear with the same BE Retainer diagnostic.
You will note that the refractive change is now 2.60D . Additional consecutive nights of wear will provide a more definitive and accurate response.



The question the practitioner must ask following the overnight trial process is: "What was the topographical response?"

Once topography indicates that a definite Bulls-Eye, Central Island or Smiley Face has resulted, the practitioner should go back to the BE software and select the response in the program that indicates the treatment response obtained for that eye, and click: "Trial Response"
Select the response that resulted topographically. In this case the maps on the right all indicate a bulls-eye result.
The "Bull's Eye" choice would be made and then select "Next"



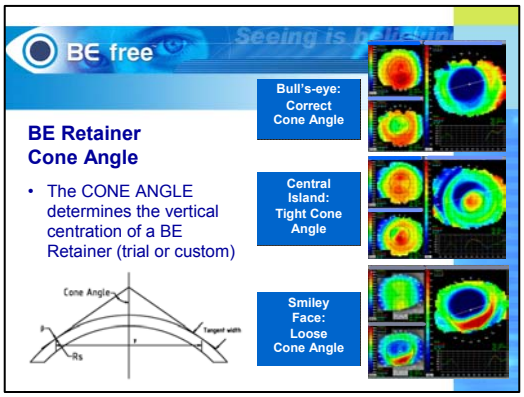
By clicking at the apex of the cornea on the Axial Power Subtractive map, you can see that the effect was 2.60 diopters and not the 2.98 that was predicted based on the initial topography data.

Don't be concerned that the trial may not achieve the treatment target. The BE overnight trial only needs to produce a bulls-eye topography and a measured refractive change. Again, trials are not supposed to achieve the desired myopic reduction, custom BE Retainers are designed for this purpose.

By entering the actual Rx change achieved with the trial, the BE Studio software will calculate the ideal custom BE Retainer parameters.

Using the Axial Power map, the practitioner enters the dioptric change of -2.60D achieved with the overnight trial, then select "Next".

The BE Studio software will account for the slight error that existed in the topography data and calculate the ideal BE Retainer custom order to achieve the desired myopic reduction.



Most parameters of a BE Retainer will be familiar to practitioners such as base curve, diameter and power.

The BE Retainer has additional unfamiliar specifications such as the" TRF" code. This code tells the manufacturer what specific combination of

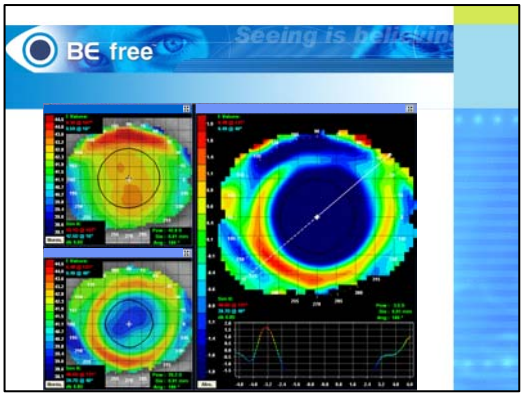
curves need to be manufactured into the custom BE Retainer.
Lastly, you will note the cone angle measurement.

The cone angle is a specification designed to best align the BE Retainer with the shape of the peripheral cornea where it will rest. This angle, measured in degrees, is critically important to the fit of the BE Retainer and determines the vertical centration.

A BE Retainer with the correct cone angle will exhibit perfect centration and will result in a Bull's-Eye topography response.

A cone angle that is too tight will result in a Central Island topography and is similar to a tight fitting conventional GP lens. The result is a BE Retainer that positions low.

A cone angle that is too loose will result in a BE Retainer that positions high resulting in a Smiley Face topography response.



Here we see the topographic result on the Axial Power map after 8 weeks of BE Retainer overnight wear.

We observe a beautifully centered bulls-eye topography and a 3.10D myopic reduction effect.

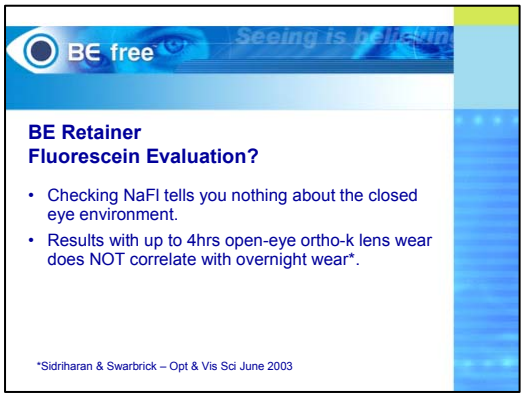
Note also the extent to which the treatment zone has extended beyond the pupil.

With such a perfect result, the practitioner can test a possible reduced wearing schedule with the patient.

Question 18: What is the next step if the topographical results are inconclusive (not a clear bull's-eye, central island or smiley face)?

Question 19: Why is the cone angle important?

You will note that at no point has fluorescein been indicated to evaluate the fit of the BE Retainer.



Fluorescein analysis does not provide any significant information regarding how the BE Retainer will position with the lid closed, muscles relaxed and the patient horizontal.

Sidriharan and Swarbrick demonstrated this by evaluating the fit of orthokeratology lenses worn for up to four hours of open eye wear. A correlation could not be drawn between the open eye appearance of the ortho-k lens and the actual overnight wearing result.

However, fluorescein is used to evaluate the physiological response and corneal epithelial integrity.

Since there is always a layer of tear film between the BE Retainer and the cornea, there should not be any central epithelial disruption from the mechanical forces of a retainer too low in sag height.

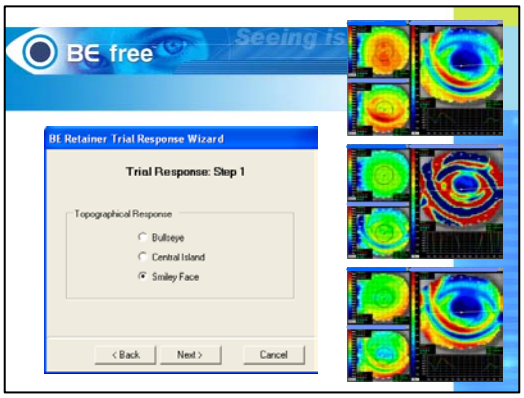
Examine closely on each visit for any corneal staining, especially centrally. Contact your BE Retainer consultant for assistance in such cases.

In terms of BE Retainer handling and care: cleaning, handling and patient compliance are critical. The wearer should be instructed to use only those solutions recommended by the practitioner.

The storage case should be cleaned and allowed to dry nightly or while the retainers are being worn. It should be replaced regularly according to manufacturer or practitioner recommendations.

Handle the BE Retainers with clean, dry fingers.

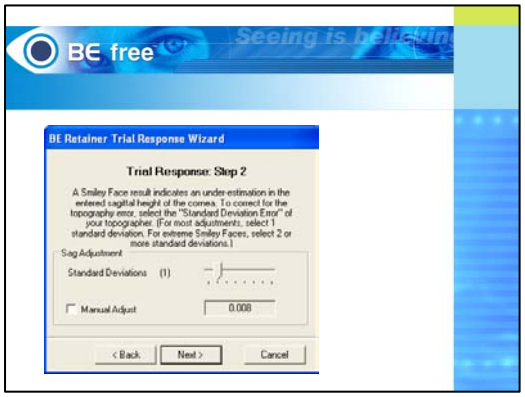
Lastly, ensure that patients comply with the follow-up schedule to monitor their ongoing corneal health.



In this next case, assume the complete eye health workup has been performed, baseline topography taken, initial BE Retainer diagnostics calculated, and dispensed for an overnight trial.

This is the result of the overnight BE Retainer trial as seen on the Axial Power Subtractive or Difference map, the Tangential map, and the Refractive map.

All three maps show the same result of a large arcuate "smile" pattern or Smiley Face encroaching on the inferior pupil margin.



This treatment zone position will cause flare and glare and limit the wear schedule and effect visual acuity significantly.

Although the treatment zone is mal-positioned, note that the refractive change is still quite high at -2.10D.

Since there is certainty regarding the topographic response, the "Smiley face" response can be input to the BE Studio software to make the appropriate parameter changes.

Since the overnight trial resulted in a Smiley face response, there must have been error in the baseline topography data that caused the wrong initial trial to be selected.

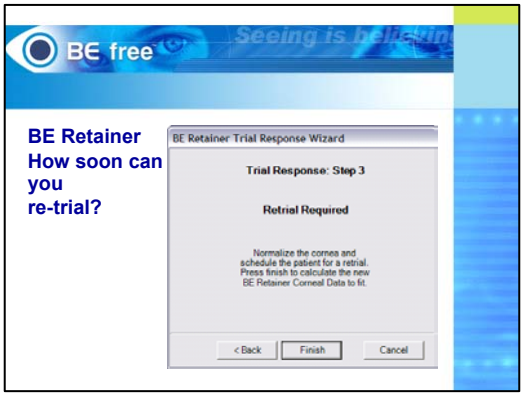
To correct for the error, the BE program can be adjusted by entering a 1-trial step adjustment of 0.008 millimeters.

By entering this value, the existing error is corrected in the initial corneal data and a new diagnostic will be calculated.

The BE Retainer diagnostics are separated by 0.008 millimeter or 8 micron increments in sagittal height.

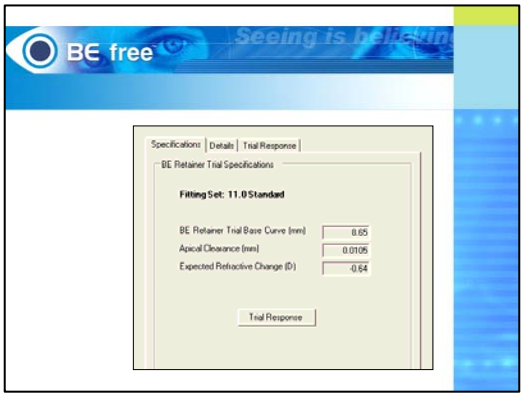
If the first overnight trial produces a Smiley Face, by selecting the next steeper diagnostic, you will be refitting a BE Retainer trial that is 8 microns higher in sagittal height, with a correspondingly steeper cone angle. The combination of the two should result in a better-centering diagnostic result.

To calculate the new trial parameter, select "next".



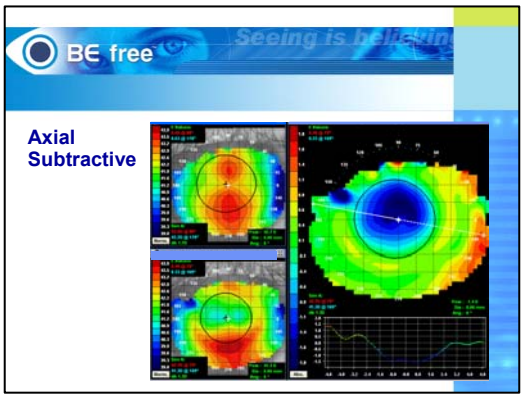
The software program will recommend normalizing the cornea prior to a retrial to ensure the "Smiley Face" obtained on the first overnight trial will not adversely affect the next overnight trial.

The cornea must normalize prior to any new diagnostic or custom order Retainer placed on the eye. It is recommended to use a 1:1 relationship in calculating the return to baseline shape. If the initial overnight trial was two nights, allow two nights without retainers to normalize the cornea.



In this case, the BE studio software recommends the next steeper diagnostic of 8.65 mm to replace the original 8.70 mm base curve diagnostic.

An overnight trial should now be conducted with this diagnostic and the result entered into the BE Studio



Software.

The retrial should achieve a good Bull's Eye topographical response such as seen here.

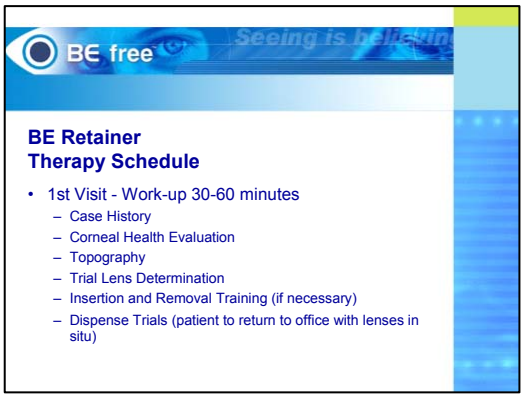
Note the treatment zone well-centered in relation to the pupil on the Axial Power map with a 1.40D change.

The key to the BE Retainer is to do overnight trials until a bulls-eye topographical response is obtained.

The trials are used to achieve the desired topography before ordering the final custom retainer to be dispensed. By trial fitting to achieve the ideal effect, you ensure the success of the custom order.

Question 20: Following a smiley face or central island result, how soon can a re-trial in another diagnostic parameter be tried?

The recommended patient follow-up schedule is as follows:



Visit 1: Complete eye health exam to include: case history, refraction, biomicroscopy, and topography to determine the BE Retainer diagnostics for the overnight trial. Insertion, removal, and retainer care procedures should be taught at this time as well.

The patient should be instructed to insert the diagnostic retainers just prior to sleeping and return to the office with the trials in-situ early the next morning.

It is important that this morning return to the office is as close to awakening as possible, usually within 2 to 3 hours.

The second visit will be the first evaluation of overnight wear with the diagnostic. This visit will take 15 to 30 minutes.

During this visit, the engraving and adherence on each diagnostic is checked. The diagnostics are removed and the cornea is examined using fluorescein for evidence of staining.

Unaided visual acuities are taken followed by topography to asses treatment zone size, position, and myopia reduction.

If a bulls-eye topography response is obtained, discontinue the trial, normalize the cornea and order the custom BE Retainer. If a central island or smiley face results, normalize the cornea and perform a retrial in another BE Retainer diagnostic parameter as indicated by the BE Studio software.

Having achieved a Bull's Eye topography with the diagnostic, the third visit will be the first wearing the custom BE Retainer.

This visit is treated the same as the first night diagnostic trial. The purpose is to be sure the custom retainer is performing as predicted.

The 4th visit will be scheduled after 7 to 10 days of BE Retainer wear to ensure that the full target myopic change has taken place. This will be a morning visit but the patient will not be required to wear the retainer to the office. This visit should last 10 to 20 minutes.

The 5th visit should be scheduled for one month, late in the day.

If the patient has excellent VA in the late afternoon, and exhibits an unaided over-refraction of + 0.25 to +0.50D, the practitioner may want to consider a reduced wear schedule.

Following the 1 month visit, the patient should return for follow-up every six months.

At each visit, the Retainers should be checked for deposits, warping, or any defect. In order to avoid vision or comfort problems, it is recommended that the BE Retainers be replaced at least yearly.

It is important to note that with each and every visit the practitioner is not only checking acuity but must always perform topography, check corneal health and review care, handling and the solution regimen.

Thank-you for participating in the BE Retainer certification course.

The course you have just completed is a condensed version of the full BE Retainer training process. You are strongly encouraged to download the comprehensive BE course to completely familiarize yourself with the BE Retainer system and to prepare yourself for success.

Simply log onto the BE Retainer website at **www.beretainer.com** to download the BE Retainer course.

Once you have successfully completed the certification process you will receive a BE Retainer certification number.

The next step is to call your local BE Retainer distributor to get started with BE Retainer for Optimal Orthokeratology.

Thank you!