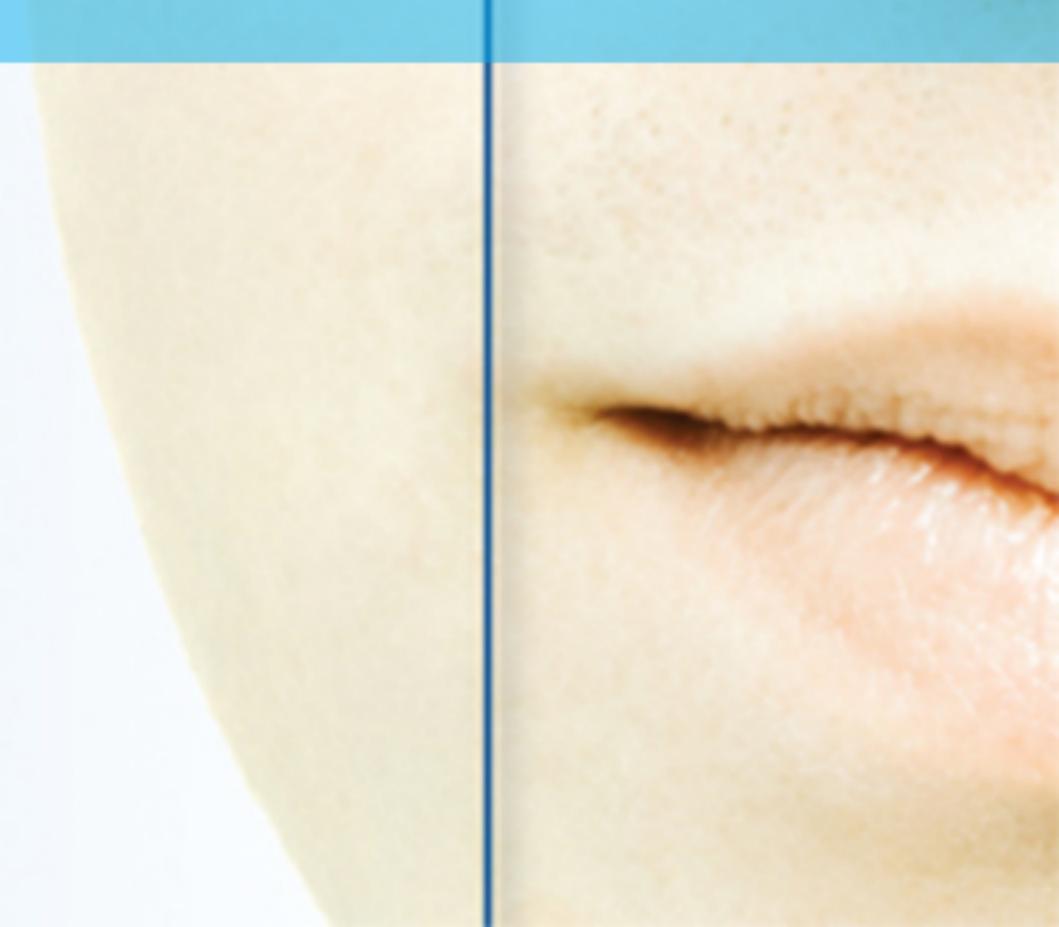
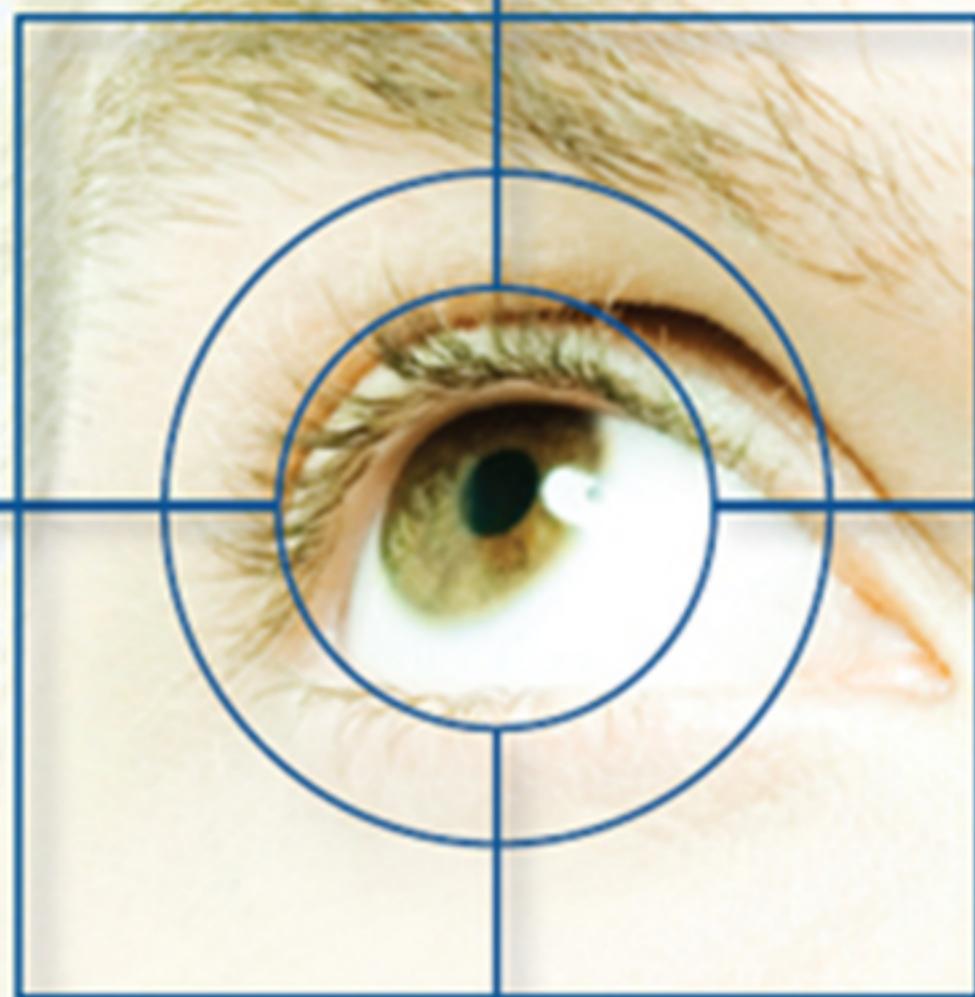




See Clear Today

# FUTURE X LENSES PROGRESSIVE FITTING GUIDE

A GUIDE TO THE SUCCESSFUL  
FITTING OF FUTURE X LENSES  
PROGRESSIVE



# WELCOME

We are pleased to present this guide which outlines the essential rules for **the successful fitting of progressive lenses** to your presbyopic patients.

Overall, it guides you through successful fitting from first contact to the final delivery of the spectacles.

A genuine **working tool**, this guide will be found useful in your daily routine and help you to be successful in fitting progressive lenses and help **to guarantee patient satisfaction**.

**Please use it regularly!**



# FUTURE X LENSES PROGRESSIVE FITTING GUIDE STEP BY STEP

1



## PATIENT UNDERSTANDING

2



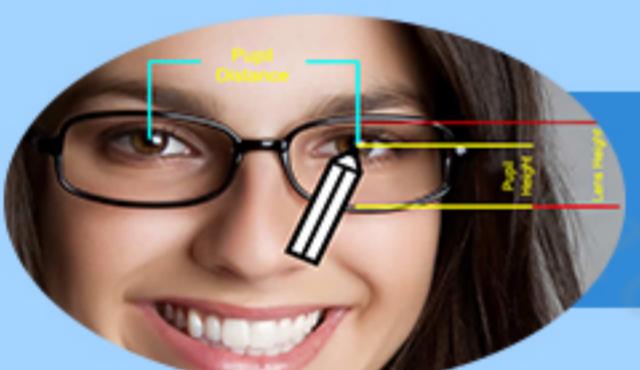
## ANALYSING THE PRESCRIPTION

3



## FRAME SELECTION

4



## TAKING THE MEASUREMENTS

5



## EDGING/SCALING THE LENSES

6



## FINAL FITTING AND DELIVERY

7



## MONITORING OF THE ADAPTATION



1

# UNDERSTANDING THE PATIENT

THIS FIRST STEP IS ESSENTIAL  
TO THE SUCCESS OF LENS FITTING.

1 | What was the patient  
wearing before?

## TYPE OF LENSES WORN

- Single Vision for Distance
- Single Vision for Near
- Mid-Distance (intermediate)
- Bifocal
- Progressive
- Material , Colour , Coatings...

3 | Analysing the previous  
lenses

## PREVIOUS LENSES

- Measure the previous correction: sphere , cylinder , axis , addition and prismatic correction if any.
- Date when give the previous lenses.
- Visual performance with former lenses: measure acuity for distance and near vision.

2 | What are the visual  
needs?

## WHAT ARE THE SPECTACLES USED FOR ?

- Permanent or occasional wear?
- Working distances?

## SPECIFIC REQUIREMENTS ?

- Profession , Hobbies , Leisure.
- Clarity of vision required.
- Field of vision needed.

**\*\* Understand the reasons  
for any lens change and  
confirm its need.**



## 2 ANALYSING THE PRESCRIPTION

AN OVERVIEW OF THE REFRACTION TECHNIQUES

### 1 Compare the new prescription with the previous one

IF THE DIFFERENCE IS EQUAL TO (OR MORE THAN).....

- 1.00 D on the spherical
- 1.00 D on the cylinder
- 10° on the axis
- 1.00 D on the addition

.....confirm its necessity with the prescriber and ensure its acceptance.

### 2 Compare the value of the addition with the ones suggested in the table

These typical values should only be exceeded in cases of real necessity.

AGE	ADDITION
40 years	0.75 D
44 years	1.00 D
47 years	1.25 D
49 years	1.50 D
51 years	1.75 D
54 years	2.00 D
58 years	2.25 D
63 years	2.50 D
67 years	2.75 D
70 years	3.00 D
75 years	3.25 D
80 years	3.50 D

\* Addition over +2.50 D are rarely ever necessary, except in case of short reading distance and/or poor visual acuity.

### 3 In distance vision

#### DETECTING UNDER-CORRECTED HYPERMETROPIA

This is often the cause of a too strong addition because it relates directly to the value of the addition.

### 4 In near vision

#### USING THE READING CHART

The subject wearing the near vision correction, position the reading chart at their usual reading distance.

### 5 Determination of the spherical

- Always fully correct the ametropia, particularly any hypermetropia, but do not overplus.
- Remember that refraction has not been undertaken for infinity: add -0.25 D to the spherical if necessary.
- Record the power of the strongest plus spherical that provides maximum visual acuity.
- Continue until the best acuity is obtained

### 6 Determination of the cylinder

#### USING THE CROSS CYLINDER METHOD

- Position the handle of the cross cylinder along the cylinder axis direction of the trial prescription (it should produce a drop in acuity).
- Correct the astigmatism only if it results in a noticeable gain in visual acuity.
- Be wary of weak astigmatism, it often varies. Moderate prescriptions with oblique axes that may give rise to distortion.

### 7 Determination of the addition

Normally, subjects should be allowed to use two-thirds of their total amplitude of accommodation at their usual working distance (leaving one-third of their total amplitude in reserve) so as to be comfortable.

#### WITH MOVEABLE NEAR VISION CHART:

Bring the near vision chart in towards the subject until it is only just legible, the amplitude of accommodation is the reciprocal of this distance.

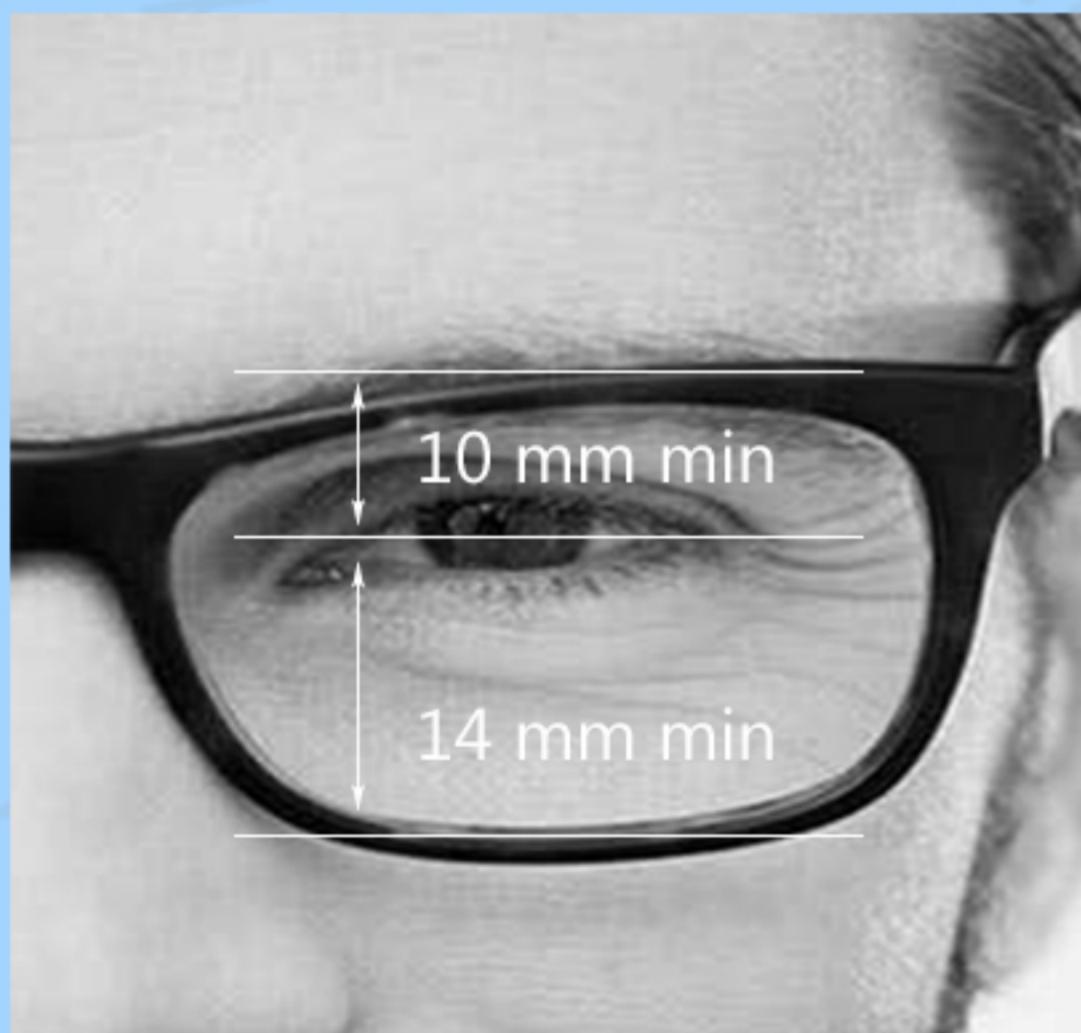


## 3 | FRAME SELECTION

THE CORRECT CHOICE OF FRAME IS IMPORTANT FOR OVERALL COMFORT

### 1 | Frame selection

Select a frame which is right for the wearer's face, that is stable on the nose and offers sufficient height between the pupil and the lower rim of the frame.



**For optimal visual comfort, minimum distance of:**

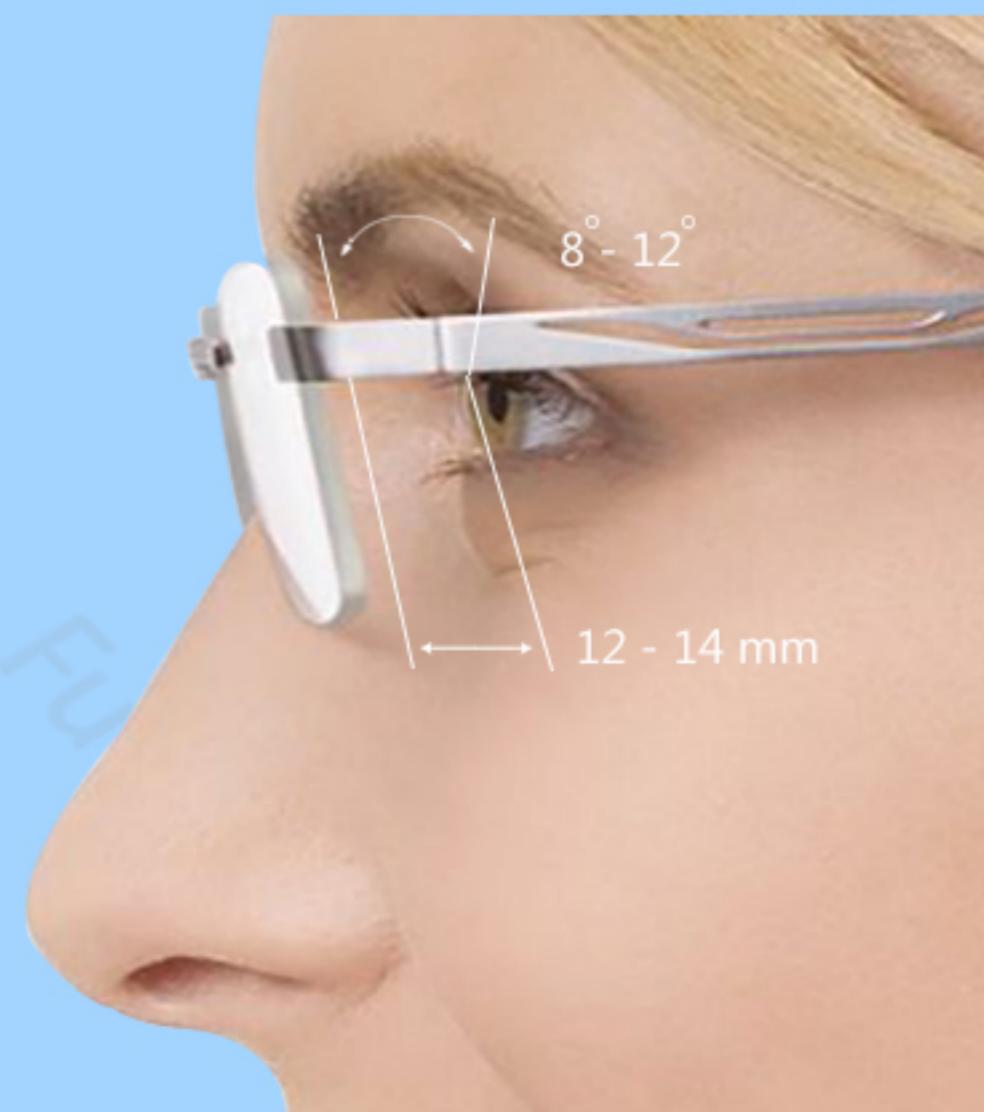
- 17 mm between pupil center and bottom of the frame for regular progressive lenses and 14 mm for short corridor progressive lenses
- 10 mm between pupil centre and top of the frame.

**\*\* The frame should always be adjusted before starting to take any measurements.**

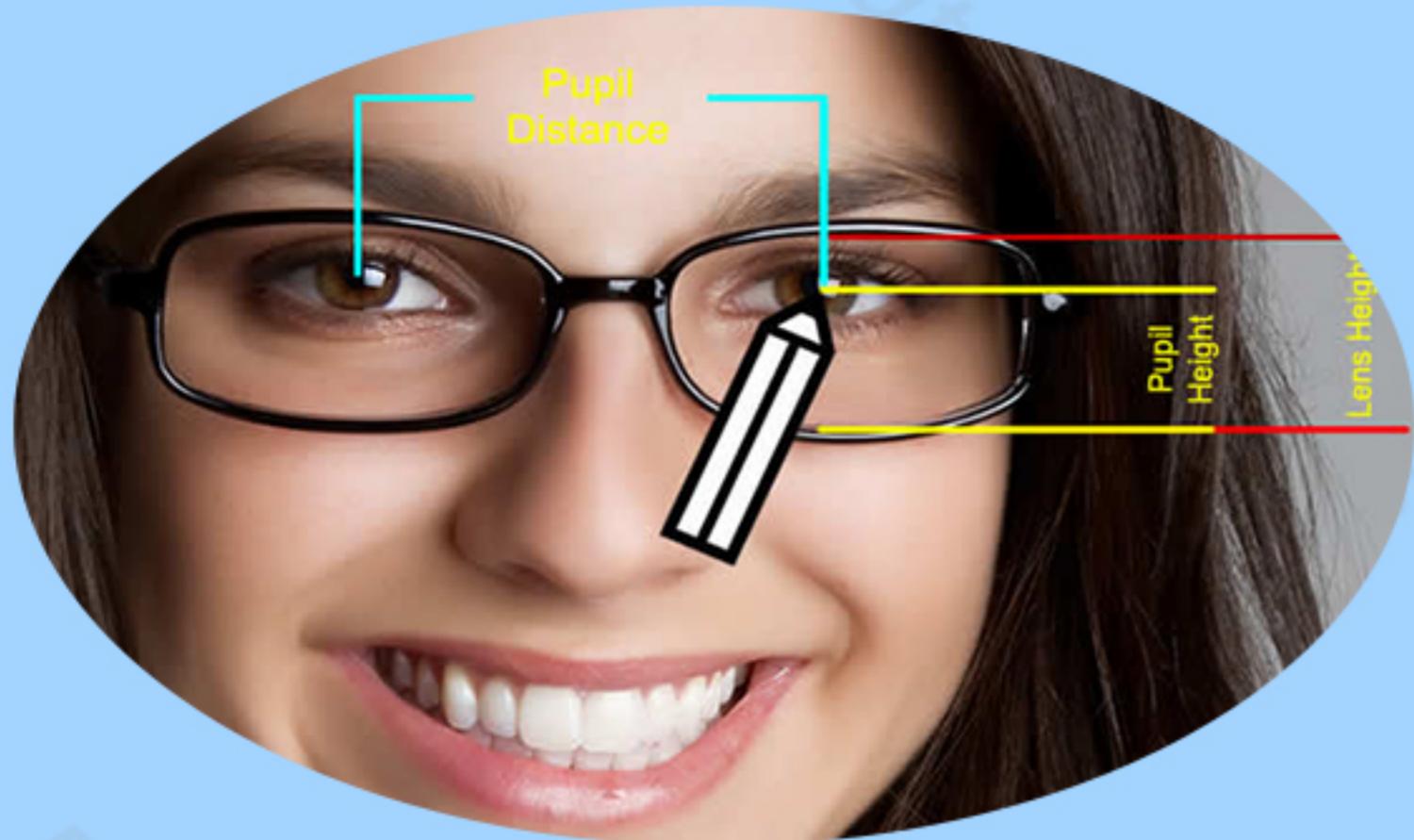
### 2 | Frame adjustment

Adjust the frame to fit the face of the patient so that, in average:

- The vertex distance is approximately 12 to 14 mm.
- The pantoscopic angle is in the region of 8° to 12° Proceed with the adjustments in the order:
  - Adjustment of the front of the frame: projection, inclination, horizontality.
  - Adjustment of the sides of the frame: opening, shape and length, ear pieces, closure of the sides.



After adjustment, if the frame parameters are significantly different from average values, the choice of a progressive lens with personalised fitting parameters is recommended for wearer's optimal vision.



**\*\* Before you take any measurements, it is essential that the frame be adjusted to the patient's face.**

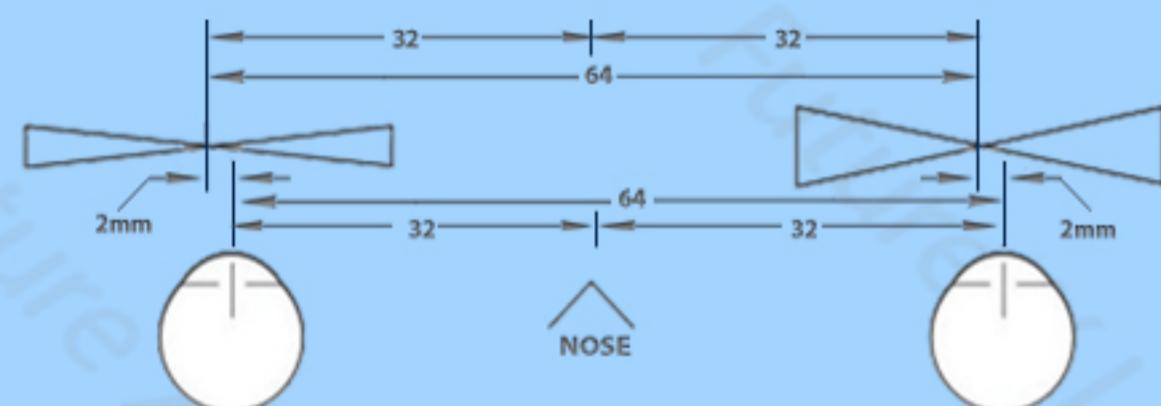
## 1 | With measure instruments

### MEASURING THE MONOCULAR PUPILLARY DISTANCES

Using X lenses application PD measurement tool.



**X lenses affords opportunity to take a photo which gives you the highest accuracy in the PD measurement.**



Monocular pupillary distance = the distance between the root of the nose and the centre of the pupil.

## 4 | TAKING THE MEASUREMENTS

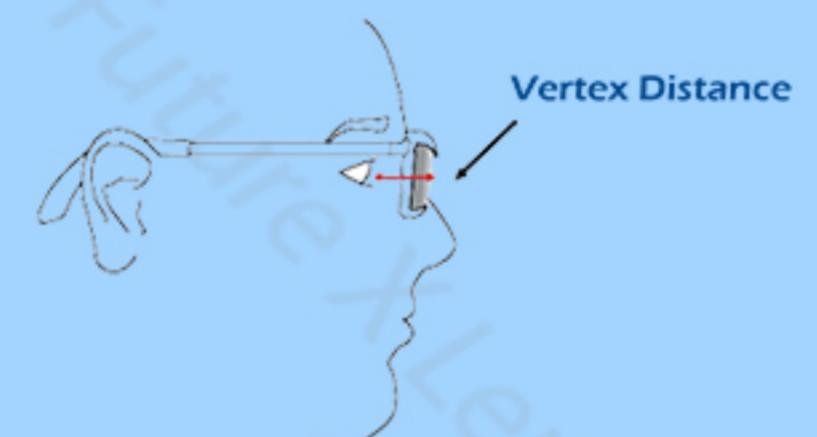
### A CRUCIAL MOMENT FOR THE SUCCESS OF THE PAR SPECTACLES

#### Measuring the vertex distance:

- Position the frame on the patient's face in the adopted position and ensure that it is properly adjusted.
- Get the patient to look into the distance.
- Position the tool on the side of the frame, parallel to the arm.
- Bring the extremity of the tool at the level of the apex of the cornea.

**Note** the distance separating the apex of the cornea from the plane of the lenses.

#### 1. Vertex Distance

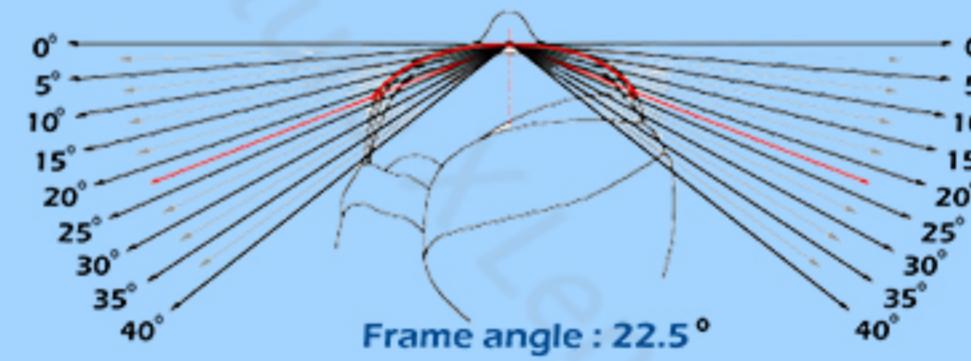
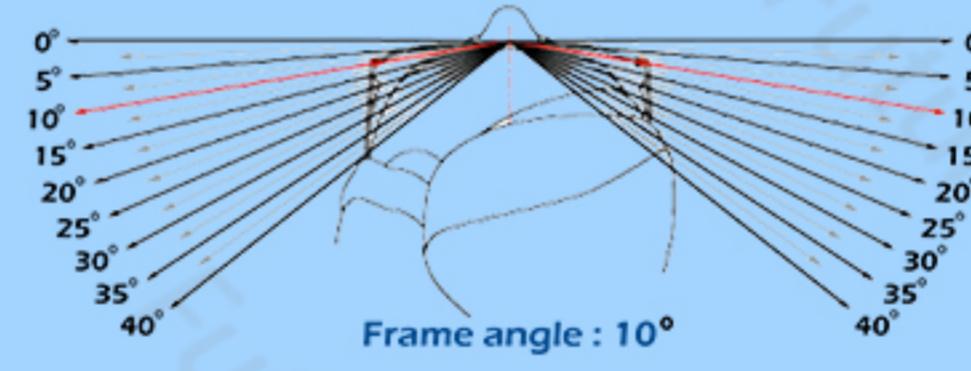


The distance between the person's glasses and their eyes.

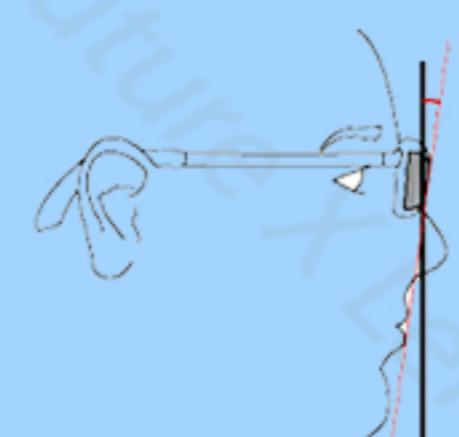
#### Measuring the pantoscopic tilt:

- Remove the display lenses (except for rimless or nylor frames).
- Position the frame on the patient's face and ensure that it is perfectly adjusted.
- Get the patient to look into the distance, in a natural position.
- Apply the lateral face of the tool against the edges of the frame.
- Read the pantoscopic angle shown by the bubble level.

#### 2. Panoramic Angle



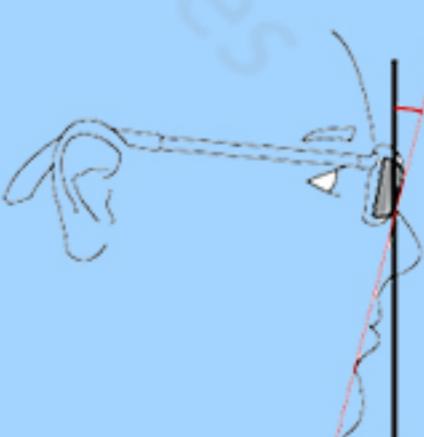
#### 3. Pantoscopic Tilt



Natural Head Position

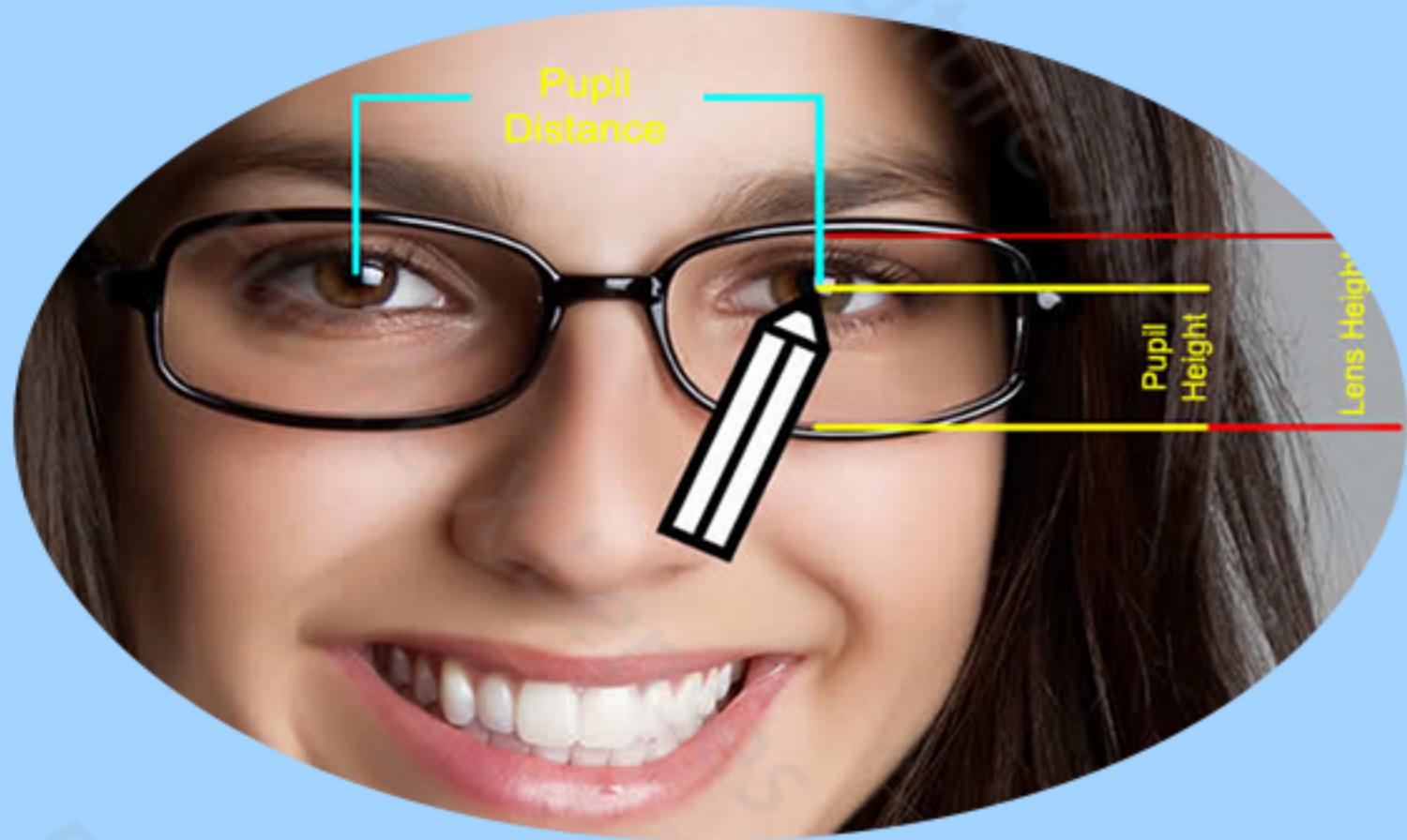


Person 2 - Ear Lower



Person 3 - Ear Higher

The angle of the lenses as they sit on a patient's face.



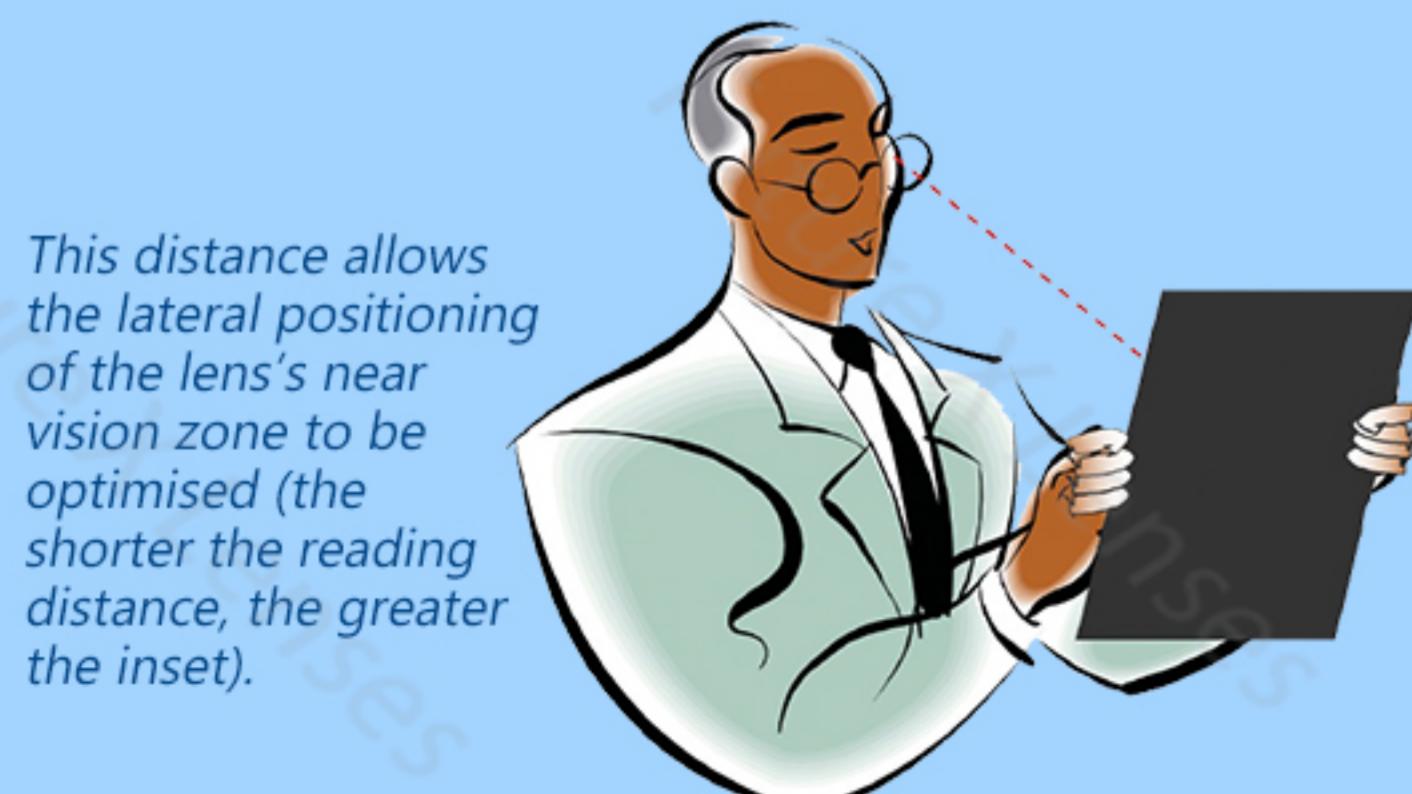
All our designs are calculated for full pupil centring. Meeting this centring condition is essential for achieving optimum vision comfort.

## 2 | Reading distance

### Measuring the reading distance:

- The patient should wear his/her near vision correction (either on a trial frame or by using the previous spectacles).
- Give the patient a reading text and ask him/her to read medium-sized characters.
- Ensure that the patient adopts a natural reading position.
- Using a tape measure or other suitable device, measure the distance between the reading chart and the lens plane.

**The reading distance (in metres) cannot be greater than the reciprocal of the addition (in dioptres).**

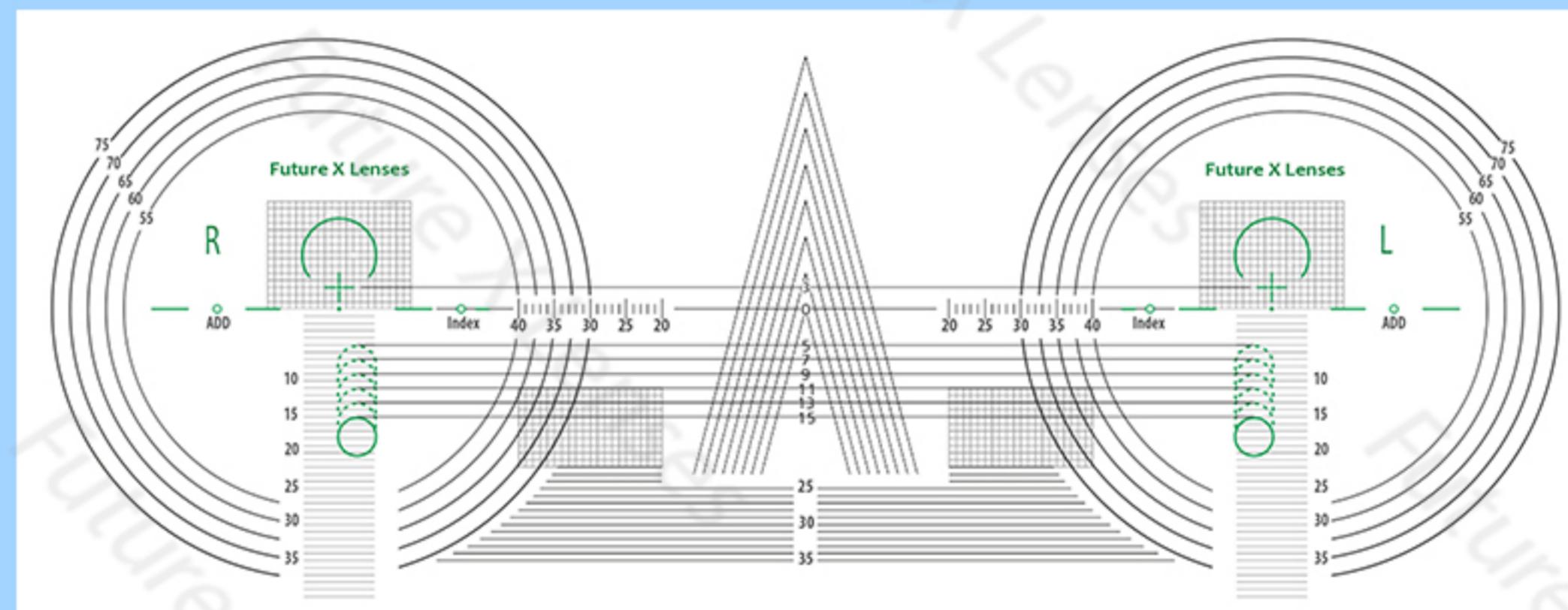


## 4 | TAKING THE MEASUREMENTS

### A CRUCIAL MOMENT FOR THE SUCCESS OF THE PAR SPECTACLES

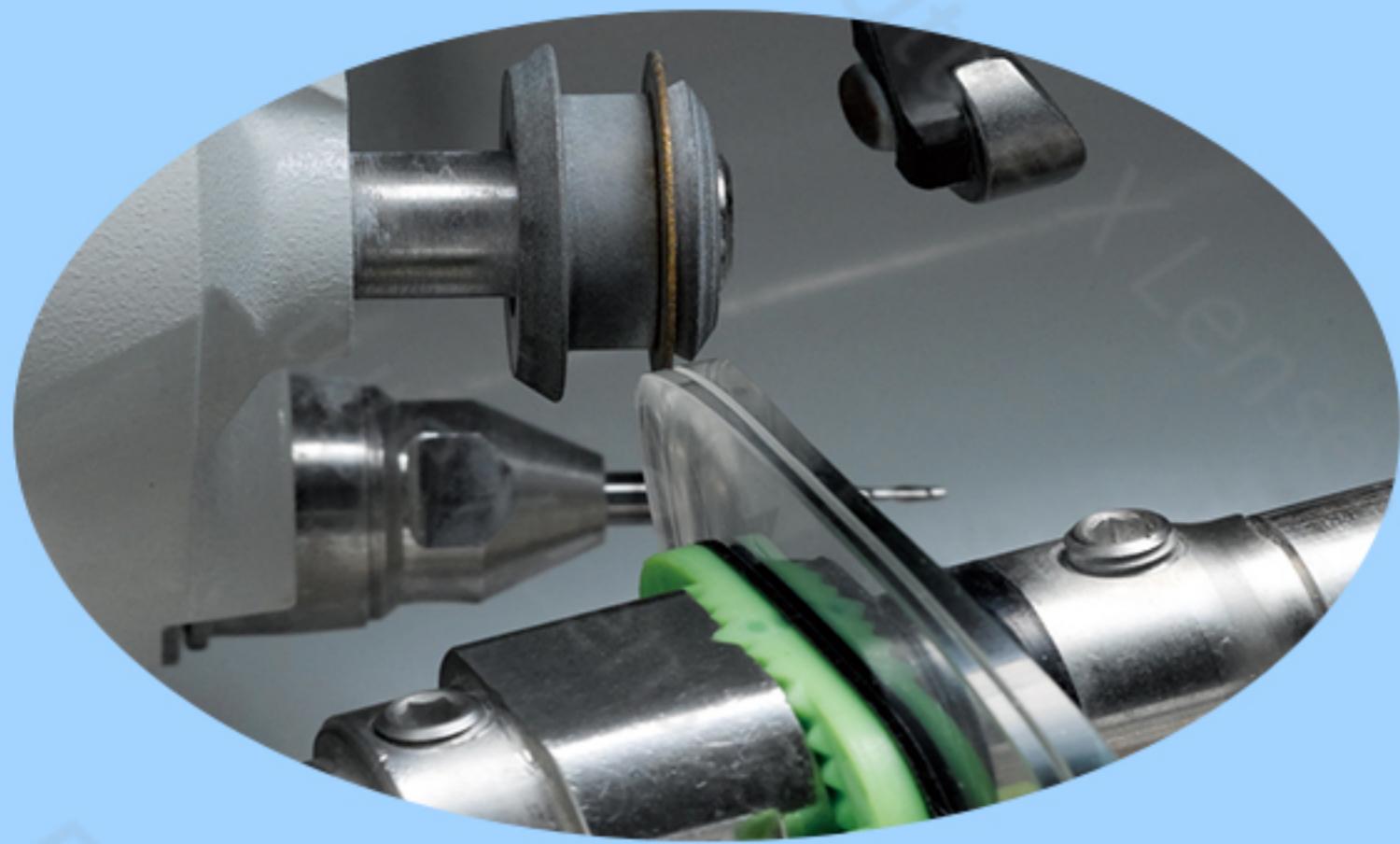
### 3 | Checking measurements

Using a Ditest or centring chart, mark the distance vision centring crosses on the pupillary distances and heights measured and mark the positioning of the near vision circles. Allow the customer to re-position the frame on his/her face



### CHECKING IN DISTANCE VISION

- Have the customer look into the distance, position yourself facing him/her at eyes height and check that the centring crosses coincide with the centres of the pupils (see photograph to right).
- The RE and LE pupillary heights are usually similar. If a difference in height is observed:
  - check the adjustment of the frame, especially any horizontal misalignment, often a cause of difference in height.
  - check that the subject's face is indeed vertically asymmetrical. If a difference in height is confirmed, reproduce it in the glazing.



## 5 EDGING/SCALING THE LENSES

### A FEW STEPS TO FOLLOW

#### 1 Check the conformity of the lenses and their markings

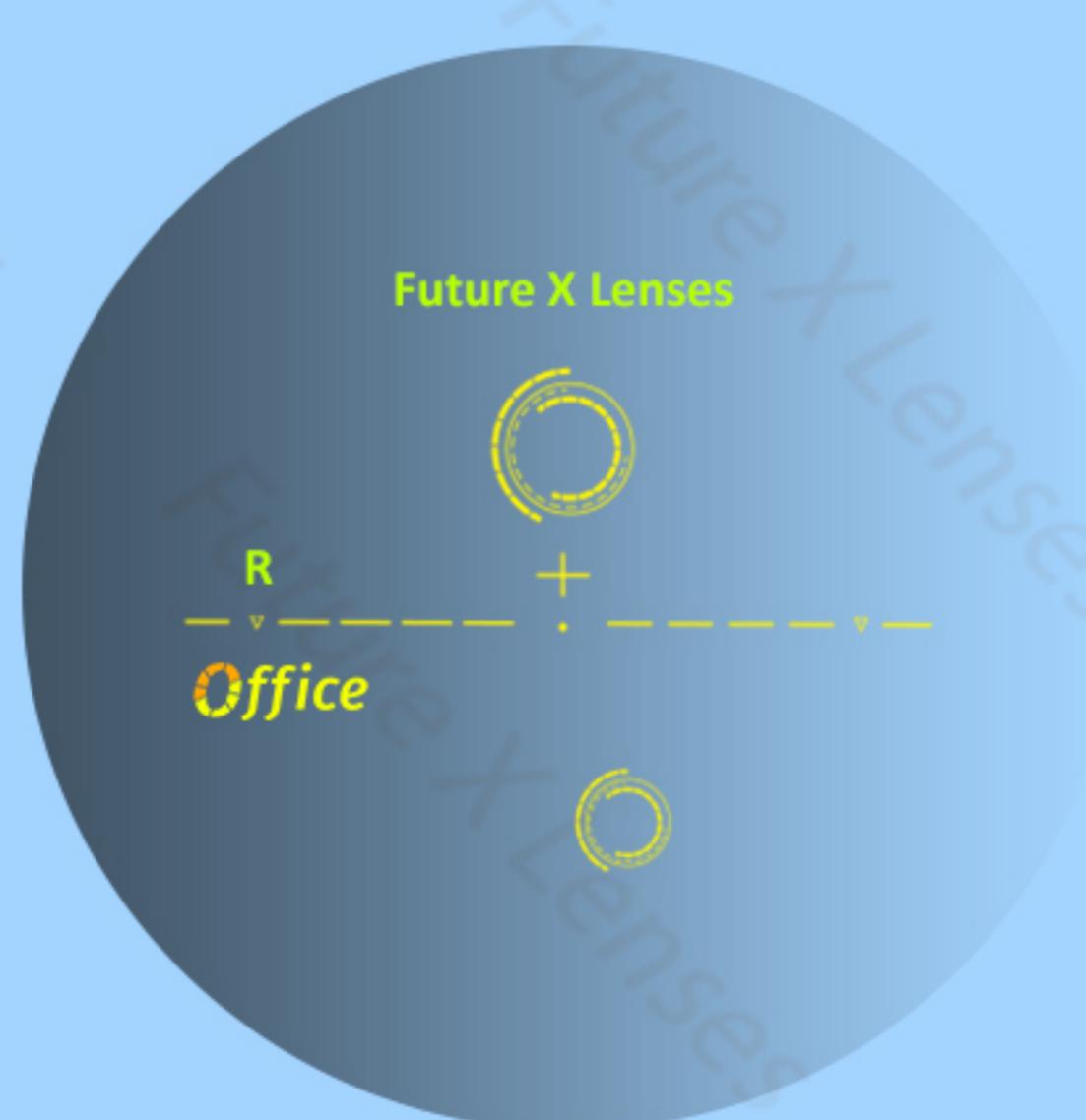
- Checking distance vision power: measurement is made by placing the concave face of the lens in contact with the bearing cone of the focimeter. The distance vision control circle must coincide with the bearing cone of the focimeter, the axis of the lens being horizontal.
- The designs of some lenses take complex optimisation criteria into account (aspherisation, customisation, etc.) affecting the direct reading on the focimeter. These lenses are supplied with double labelling.
- The complexity of some progressive designs and their various optimisation parameters make the location and control of near vision power on the focimeter difficult. Make a simple and reliable check by reading the temporal engraving of the addition value.

Example	R/L	Far Vision			Addition	
		DD	Sph	Cyl	Axis	Add
		70/75	+3,25	+0,75	030	+1,25
			+3,12	+0,62	025	+1,14

Prescribed power  
Power measured with focimeter



- Checking the correct positioning of markings in relation to the engravings.
- Verification of the prism: this is done by placing the focimeter on the prism control point (middle of the 2 micro-circles). The prism measured is the resultant of the thinning prism (2/3 of the addition) and a corrective prism if any





## 5 EDGING/SCALING THE LENSES

A FEW STEPS TO FOLLOW

### 2 Make sure that both centring are made in the Boxing system

- All values must be given in the Boxing system.
- Centring and edging equipment must work in this system

### 3 Check the conformity of the scaling

Using the centring chart,

check:

- the right and left PDs,
- the right and left heights,
- the horizontality of the scaling:  
by the alignment of the micro-circles.

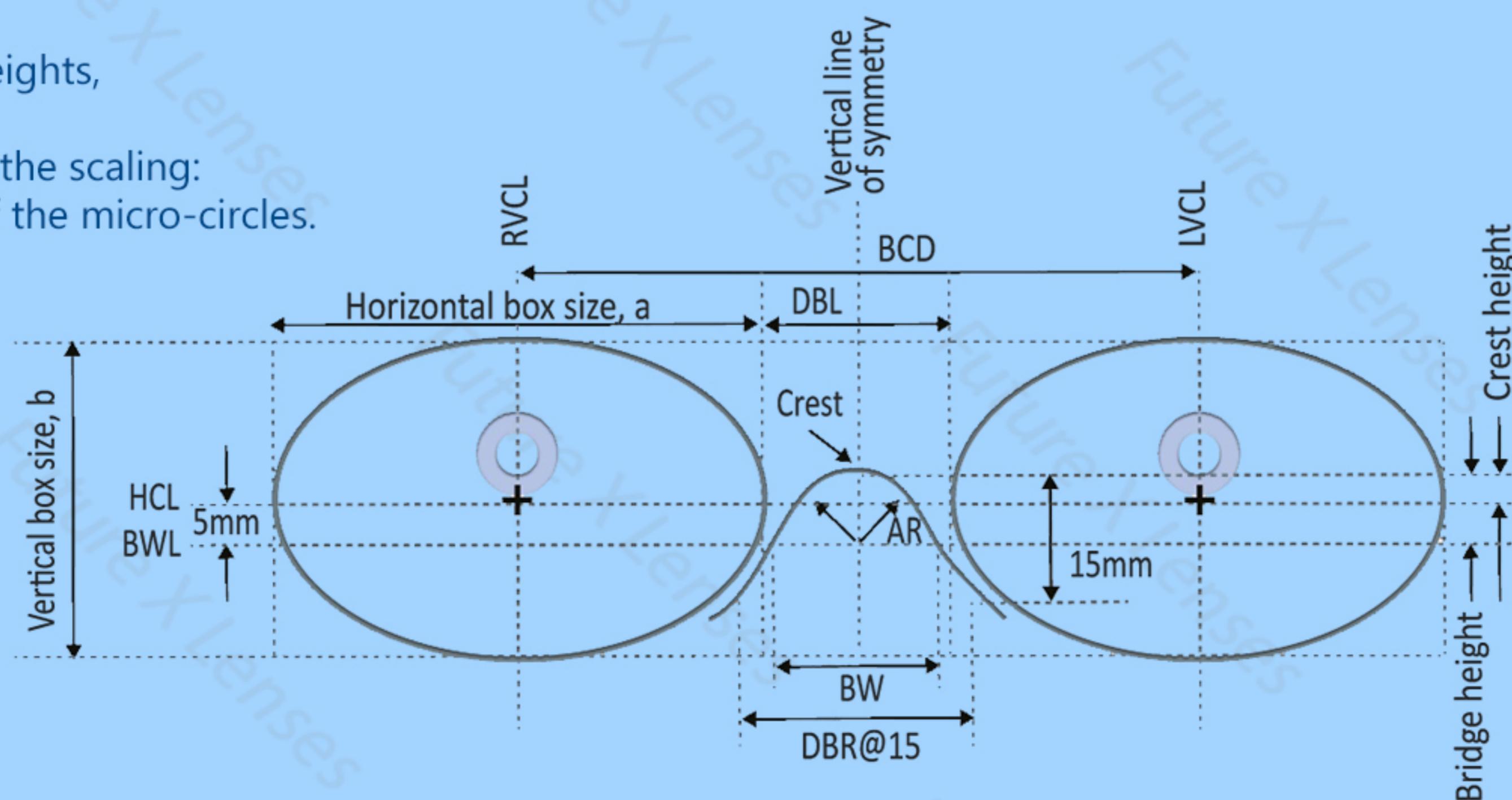
### 4 Make sure the frame is correctly set up

Pre-adjust the frame paying particular attention:

- to the positioning of the lenses in the same plane,
- to the pantoscopic angle

### 5 Retain (or retrace) the lens markings until delivery

For the final fitting and checking on the patient's face.





## 6 FINAL FITTING AND DELIVERY

THE MOMENT OF PLEASURE

### 1 | Adjust the frame to the patient's face

- Respect the frame position chosen by the patient.

### 2 | Check centring using markings

#### In distance vision:

- fitting cross in correspondence with pupil centre for the right and left eyes.
- Finalise the frame adjustment.

### 3 | Check the vision quality

- In distance vision using a visual acuity test.
- In near vision using a reading test.

### 4 | Give recommendations to assist adaptation

- Distance vision at eye level, looking straight ahead.
- Near vision in the lower part of the lens, by lowering the eyes (and slightly raising the head if necessary).
- To begin, all head and eye movement should be carried out slowly.

**\*\* Inform the patient about the learning period necessary for each new pair of lenses.**





## 1 | Visual comfort

- Perfect adjustment is essential to obtain the greatest benefit from a progressive lens design.
- Encourage your patients to visit you regularly to have their spectacles checked and adjusted.

## 2 | Visual transparency

- Recommend that the lenses always be wiped with a microfibre cloth and, if they are very dirty, washed in lukewarm water and liquid soap or a suitable product that does not contain any harsh chemicals.
- Recommend that spectacles be stored in a case after use, that they never be put lenses face down and that they never be exposed to a heat source (car windscreen, etc.)

## 7 | MONITORING OF THE ADAPTATION FOR LONG-TERM SATISFACTION

## 3 | Visual efficiency

- Explain to your patients how presbyopia develops over time.
- Advise them to have their eyes checked regularly, so that they are always wearing a correction suitable for their needs, thus making it easier to adapt to a change of prescription.

## 4 | Certificate of authenticity

- Future X lenses are supplied with a certificate of authenticity guaranteeing their origin and identifying the types of lens worn and the exact prescriptions.
- Tell the patients how important it is to keep this certificate and present it every time they visit their Eye Care Professionals.

## COMPLEMENT

### 1 | Record the precise complaints of the wearer

Type of problem encountered, frequency and particular circumstances of problem, distances concerned, expedient solutions found, etc.

### 2 | Measure the lenses

Power of distance vision, near vision and addition.

### 3 | Remark the lenses

Fitting crosses for distance vision and near vision circles.

### 4 | Check the correct centration of the lenses

In distance vision and in near vision, frame positioned on the wearer's face.

## SOLVING ADAPTATION PROBLEMS

IT IS NECESSARY TO FOLLOW A PRECISE SEQUENCE IN ORDER TO DETERMINE THE PROBLEM. THOROUGH RESEARCH MUST BE CONDUCTED.

### 5 | Check the adjustment of the frame

Vertical and horizontal alignment, pantoscopic tilt and stability.

### 6 | Validate the subject's prescription

- Measure the visual acuity at distance and the reading ability at near.
- Confirm the value of the addition as related to the age.



**Tell the patients how important it is to keep this certificate and present it every time they visit their Eye Care Professionals.**

# COMPLEMENT

This table relates to the complaints sometimes presented by wearers with characteristics which were eventually blamed.

# SOLVING ADAPTATION PROBLEMS

A TABLE OF POSSIBLE CAUSES TO EXPLORE

## CHARACTERISTICS EVENTUALLY BLAMED

WEARERS COMPLAINTS	Anti-reflection	Pupillary distance NV	Pupillary distance DV	Scaling height	Distance vision	Addition	Adjustment	Distance lens/eye	Inclination of the frame	Former lenses	Astigmatism	POSSIBLE SOLUTIONS
Has to raise the head or lift lenses to read				●	●	●	●		●			<ul style="list-style-type: none"><li>• Modify the adjustment by lifting the frame</li><li>• Increase the distance or near powers</li><li>• Mount new lenses higher up</li></ul>
Needs to lower lenses or head to see better in distance vision				●	●	●	●		●			<ul style="list-style-type: none"><li>• Modify the adjustment by lowering the frame</li><li>• Reduce the distance or near powers</li><li>• Mount new lenses lower</li></ul>
Needs to tilt head to see clearly		●	●	●					●	●		<ul style="list-style-type: none"><li>• Modify the adjustment</li><li>• Modify the centring</li><li>• Check the astigmatism</li></ul>
Has a very reduced near vision field. Fatigue after prolonged work in near vision	●	●	●	●	●	●	●	●				<ul style="list-style-type: none"><li>• Check the addition</li><li>• Reduce the addition and increase the distance power</li><li>• Check the astigmatism</li><li>• Modify the adjustment by lifting the frame</li><li>• Modify the centring: mount lenses higher</li></ul>
Sees out of focus in lateral vision				●	●			●	●			<ul style="list-style-type: none"><li>• Verify the balance between right and left lenses</li><li>• Reduce the distance power</li><li>• Reduce the addition</li><li>• Check the distance PDs and modify the centring</li><li>• Check the pantoscopic angle</li><li>• Check the adjustment and the pantoscopic angle</li></ul>

# COMPLEMENT

This table relates to the complaints sometimes presented by wearers with characteristics which were eventually blamed.

## SOLVING ADAPTATION PROBLEMS

A TABLE OF POSSIBLE CAUSES TO EXPLORE

### CHARACTERISTICS EVENTUALLY BLAMED

#### WEARERS COMPLAINTS

	Anti-reflection	Pupillary distance NV	Pupillary distance DV	Scaling height	Distance vision	Addition	Adjustment	Distance lens/eye	Inclination of the frame	Former lenses	Astigmatism	POSSIBLE SOLUTIONS
Sees double at distance or near or both	●	●	●	●	●	●	●	●	●	●	●	<ul style="list-style-type: none"><li>Check distance and near pupillary distances and heights to confirm centring</li><li>Check distance and near powers, astigmatism and balance between right and left eyes</li><li>Check the adjustment and pantoscopic angle</li><li>Compare with the previous spectacles</li></ul>
Sees light sources doubled	●									●		<ul style="list-style-type: none"><li>Make new lenses with an anti-reflective coating</li><li>Verify the astigmatism</li></ul>
Sees lines deformed	●	●	●	●				●	●			<ul style="list-style-type: none"><li>Check the astigmatism</li><li>Reduce the addition</li><li>Check the distance and near PDs and the heights to check centring</li><li>Modify the adjustment by lifting the frame or mount the new lenses higher</li></ul>
Has burning, itching sensation, feels ocular fatigue	●	●		●	●	●		●	●			<ul style="list-style-type: none"><li>Check the distance and near PDs and the heights to check centring</li><li>Check distance and near powers, astigmatism and balance between right and left eyes</li><li>Compare with the previous spectacles</li><li>Make new lenses with an anti-reflective coating</li></ul>



See Clear Today

**For further information  
or for downloading this Future X Lenses  
Progressive Fitting Guide,**

**visit our website at:  
[www.futurexlenses.com](http://www.futurexlenses.com)**

