Retinoscopy – 2010 – UK.

Static and Dynamic Retinoscopy.

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Retinoscopy is objective examination technique.

My dear Colleagues.

In order to measure the refractive status of the eyes easily and quick and to the benefit of the patient and the optometrist as well, I urge you to use Retinoscopy as part of the daily routines.

To learn the examination technique of Retinoscopy is easily done in one evening, it takes but some more time to experience all deviations and possibilities of Retinoscopy as well static as dynamic , and make it part of the daily routines.

I would like to recommend you better start up with Static Retinoscopy # 4. and Dynamic Retinoscopy # 6 in the O.E.P Analytical Optometry. This will in a moment tell you if the patients refractive status is Hyperopic, Myopic, Presbyopic or even astigmatic.

Retinoscopy as objective examination technique is highly professional for the optometrist, and most informative and beneficial to the patient, who is very comfortable in visiting a learned optometrist as most professional I Vision Care.

The Optometrist who further more is using his Ophthalmoscope for examination of the patients Cornea, Iris, Lens, Corpus Vitreum, Retina and Macula Lutea, will already know the conditions of the optical pathway.

Keep in mind that your Retinoscope is the most important and stable instrument you ever hold in your hand.

I really recommend you to start up a personal study or even better in a group of colleagues in workshop – to learn the importance of Retinoscopy as part of your daily routine.

First of all – you must learn how to handle the Retinoscope and look for the reflex in the pupil.



In a very short time this will teach you the professional touch of Retinoscopy as part of your daily routine. And you will learn that Retinoscopy is easy, quick and exact.

1. **Hold your Retinoscope in your right hand – in front of the patient's right eye.**
2. **Hold your Retinoscope in your left hand – in front of the patients left eye.**
3. **The clinic must be illuminated well on common level.**
4. **Your Retinoscope must be illuminated well to make you able to see the reflex**
5. **Take a letter of a size that you know the patient is able to see.**
6. **Take a lens of + 1, 50 to compensate for the distance of examination.**
7. **Or take the lens of + 1,50 in your phoroptor. The Lens of compensation.**
8. **Adjust your Retinoscope by the mark of plano.**
9. **Look through the Retinoscope and observe the reflex in patient's eye.**
10. **Move the Retinoscope - and observe the movement of the reflex.**
11. **Movement with the Retinoscope means Hyperopia.**
12. **Movement against the Retinoscope means Myopia.**
13. **Movement horizontal combined with increased movement vertical means Astigmatism.**
14. **Axis for astigmatism is the axis of increased movement.**
15. **The observations are to be seen easily with a Streak Retinoscope.**
16. **No movement means Emmetropia.**
17. **No movement means Neutral.**
18. **Low Neutral means minimum plus lenses, or maximum minus lenses.**
19. **High Neutral mans maximum plus lenses, or minimum minus lenses.**

Second I urge you to look for positive and negative indications:

Primary Positive Indications for the estimation of Rx.:
Refractive status: Neutral.
Changes in colour: Bright.
Changes in pupil: Increase
Changes in glare: Clarity.

Primary Negative Indications for the estimation of Rx.:
Refractive status: Neutral.
Changes in Colour: Dark.
Changes in pupil: Decrease.
Changes in glare: Dull.

Finally I would really recommend you to go for the touch of:

Refractive status of the eye. (#4)
Refractive status of Rx. (#7)
Optimal Rx. at far distance (#7a)
Optimal balance of RX.
Optimal Rx at near distance. (#6)
Accommodative flexibility.
Check up on the patients glasses.
Check up on the patients contact lenses.

For your benefit as the optometrist.

Retinoscopy is a joint set of objective measurements carried out in order to obtain the holistic concept for professional Vision Care:

1. **Static Retinoscopy - # 4. in the O.E.P. – Analytical. + Phorpotor.**
2. **Dynamic Retinoscopy # 6 in the O.E.P. – Analytical. + Phoroptor.**
3. **Book Retinoscopy in Harmon near Distance.**
4. **Near Distance Retinoscopy in free space.**
5. **Medium Distance Retinoscopy in free space.**
6. **Far Distance Retinoscopy in free space.**

1. **Static Retinoscopy – known as # 4 in O.E.P Analytical Optometry.**



Static Retinoscopy: The Measurement of refractive status of the patients eyes in order to state the presence of Myopia, Hypermetropia, Presbyopia and Astigmatism.

2. Dynamic Retinoscopy: Dynamic Retinoscopy is well known as # 6 in O.E.P.



Retinoscopy carried out as the patient is fixating a near object at 40 cm.

3. Book Retinoscopy: Retinoscopy carried out as the patient is fixating a book as near object under dynamic conditions in free space in habitual Harmon Distance.



Book Retinoscopy is the original set up for Dynamic Retinoscopy with the patient holding the book in his hand as a visual-tactile situation.

4.Near Distance Retinoscopy in free space.



You only need lenses for measurement, because plane of fixation and observation is equal to the plane of object.

5. Medium Distance Retinoscopy in free space.



Medium Distance Retinoscopy is carried out as the patient is fixating an object at medium distance under dynamic conditions in free space.

6. Far Distance Retinoscopy in free space.



Far Distance Retinoscopy is a monocular measurement of Rx, and a estimation of the optimal Rx. under dynamic conditions, and makes quite a difference to Static Retinoscopy.

Far Distance Retinoscopy can be carried out as a binocular dynamic control of optimal Rx. by asking the patient to start at 600 cm and walk slowly up to the optometrist who can observe positive or negative indications.

"Beauty is in the eye of the beholder".
Quote - by Antoine De Saint – Exupéry.



Seen it once – and you will know forever.

Dynamic Retinoscopy.

Dynamic Retinoscopy is an examination technique, by which the optometrist is able to observe if the patient has established and can maintain binocular vision in all distances from 600 cm, 460 cm, 320 cm, 160 cm, 42,5 cm and all the way up to convergence near point, - either as standards or individual calculated distances.

The optometrist is observing similarity or differences in movement, colour or glare of the light reflects in both eyes of the patient positioned at 600 cm. This is very easily observed in a streak retinoscope, where the light beam has been oriented horizontal, and is moved in vertical direction. This gives the optometrist the opportunity to observe both eyes simultaneously.

If binocularity previously has been examined and confirmed at 600 cm, for example with an associated polarised test, this can be checked up on with the retinoscope. When the light reflects are identical in movement, colour and glare on both eyes, binocularity is likely to be maintained.



The optometrist will now ask the patient to move slowly and calm towards him, and will simultaneously observe the changes of light reflects in movement, colour and glare.

If there is to be observed differences in glare – one eye will grow dull.
If there is to be observed differences in colour – one eye will grow darker.
If there is to be observed differences in movement – one eye will show more movement.

All three observations are symptoms of decrease of binocularity in the above-mentioned order.

If the observations are simultaneously and equal in both eyes the patient continues towards the optometrist in all distances from 600 cm – 42,5 cm. The optometrist must observe and note any change at all for specific distances.

Dynamic Retinoscopy can be extended to near point distance by using a wooden or steel ball, which the optometrist reaches out against the patient in arms length. Move the ball back against the optometrist and ask the patient to follow the ball with both eyes. Continue beyond Harmony Distance and up to the patients near point of convergence, and you will observe even slight tendencies of suppression – or actual suppression just before it happens, as the patient can no longer maintain binocularity.

Dynamic Retinoscopy – in Child vision Care.

Reach out for the child with an open mind – and your retinoscope.



Ask Charlie to give you a hand.

“Seen him once – you will know him forever”.

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