

PRECISION OF ORTHOKERATOLOGY

ABSTRACT:

This article describes about the introduction, fitting guidelines, patient selection and contraindications of ortho keratology.

INTRODUCTION:

DEFINITION:

It is a study where reduction, modification or elimination of the visual defect by the application of contact lenses.

Here, reverse geometry lens is being applied.

REVERSE GEOMETRY:

The meaning of reverse geometry lens centrally flatter and peripherally steeper

ORTHOKERATOLOGY:

The meaning of ortho keratology is

Ortho = straight

Kerat = cornea

Ology = knowledge

Orthokeratology is being used for myopia reduction. The effectivity of orthokeratology is “ it significantly changes the corneal curvature and corneal thickness and it can be showed by corneal topography. Before orthokeratology lenses, Rigid Gas Permeable lenses were used for this purpose.RGP lens flattens the cornea and decreases the myopic refractive error.

It is difficult to achieve the correct orthokeratology lens, so trial and error method is applicable over here. By the trial and error method, when we get the final perfect lens, then this lens is called “RETAINER LENS”. Exmples are Fargo series, BE Retainer etc.

29 **FITTING OF ORTHO KERATOLOGY LENSES:**

30 Corneal Topography, extensive knowledge of RGP lenses and Large set of trial
31 lenses are required. Eccentricity should be measured always. The meaning of
32 eccentricity is “how much central part of the cornea is decentered from its
33 normal position”.Fitting should be done on the trial and error basis. After
34 fitting, patient should be seated for 5-10 minutes for adaptation and the fit
35 should be checked with white light and then with fluorescein with blue filter
36 light.In low illumination pupil diameter should be assessed also

37 **PATIENT SELECTION:**

38 Myopia should be between -0.5Dsph to-4.00Dsph

39 Less than -1.50Dcyl of corneal astigmatism

40 Central K reading should be greater than 42.00D

41 High motivation is required

42 **CONTRAINDICATIONS OF ORTHO KERATOLOGY LENSES:**

43 Ortho K lenses is contraindicated in following:

44 Previously failure of RGP Contact Lenses

45 Corneal disease and inflammation of Anterior chamber

46 Systemic disease which affects the eye

47 Keratoconus

48 Unrealistic patient's expectation

49 Against the rule Astigmatism $> \pm 0.75\text{Dcyl}$

50 Very steep and flat K value

51 When the cornea is spherical, means eccentricity is zero

52 Very loose and flaccid lids

53 **CONCLUSION:**

54 In ortho keratology lenses, reverse geometry lens is being applied. Before
55 prescribing this lens, one must have extensive knowledge on RGP. In cases of

56 RGP failure, it is contraindicated. It is useful for myopic patients with the range
57 of -0.5 Dsph to -4.00Dsph with the cylinder of +/-1.5 Dcyl. By changing the
58 corneal curvature for a transient period, orthokeratology lens is able to correct
59 the refractive error.

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