



REFACTIVE ERRORS

جامعة ساوية

كلية التقنيات الصحية والطبية

قسم تقنيات البصريات

الثالثة المرحلة

رقم المحاضرة10

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Anisometropia

Anisometropia is an ocular disorder characterized by an interocular difference (IOD) in refractive error. It represents a specific refractive condition where the two eyes of an individual can have asymmetric eye growth.

This condition can occur in situations of myopia, hyperopia or astigmatic asymmetry and is strongly associated with the development of other eye changes such as Aniseikonia, Amblyopia, Diplopia, and Strabismus.

Types of Anisometropia:

There are six clinical types of anisometropia: simple, compound, mixed, simple astigmatism, compound astigmatism and mixed astigmatism.

I-Simple anisometropia:

This type of anisometropia happens when one eye has normal vision and the other eye is myopic or hyperopic

Ex.1

R.E PLANE

L.E -2.00 D.S

Ex.2

R.E +2.00 D.S L.E PLANE

2-Compound anisometropia:

Compound anisometropia happens when both of your eyes have the same type of vision problem but one eye is worse than the other .if both of your eyes are myopic but one is much more myopia than the other ,you have compound myopia anisometropia .

If both of your eyes are hypermetropia but one is much more hypermetropic than the other ,you have compound hypermetropia anisometropia.

E.X1

E.R -1.00 D.S L.E -3.00 D.S E.X2

E.R +4.00 D.S L.E +1.5 D.S

3- Mixed anisometropia :

If one eye is myopia and the other is hypermtropia,you have mixed anisometropia .

E.X

R.E +1.00 D.S L.E -1.50 D.S

4-simple astigmatism anisometropia :

If you have simple astigmatism anisomteropia ,one eye is normal and the other eye has astigmatism myopia or hypermrtopia.

E.X I

R.E PLANE

L.E 0.0/-3.00 X40

5-Compound astigmatism anisometropia:

If you have compound astigmatism anisometropia ,you have astigmatism in both eyes ,but one eye needs much more correction than the other .in this type ,both of the eyes are either myopia or hypermtropia

E.X 1

R.E -3.00/-1.00 X 180

L.E -1.00/-1.00 X180

E.X 2

R.E +1.50/ +1.50 X165 L.E +4.00/+ 2.00 X15

6-mixed astigmatism anisometropia :

If you have mixed astigmatism anisometropia ,you have astigmatism in both eyes ,but one eye is myopia and the other is hypermtropia.

EX

E.R +1.50 /+1.00X170 L.E -0.5/-1.00X10

Symptoms of the Anisometropia:

Sometimes anisometropia may be present at birth, although it is often asymptomatic up to a certain age .

Symptoms of anisometropia are manifested: 1-eye strain visual discomfort. 2-deterioration of binocular vision.

3-diplopia (double vision), which is accompanied by dizziness and headaches.

4-hypersensitivity to light.

5-decreas in the level of contrast of vision (visible image are blurred).

6-the difference in the field of the eyes.