



PEDIATRIC EYE EXAMINATION

جامعة ساوة

كلية التقنيات الصحية والطبية

قسم تقنيات البصريات

المرحلة الرابعة

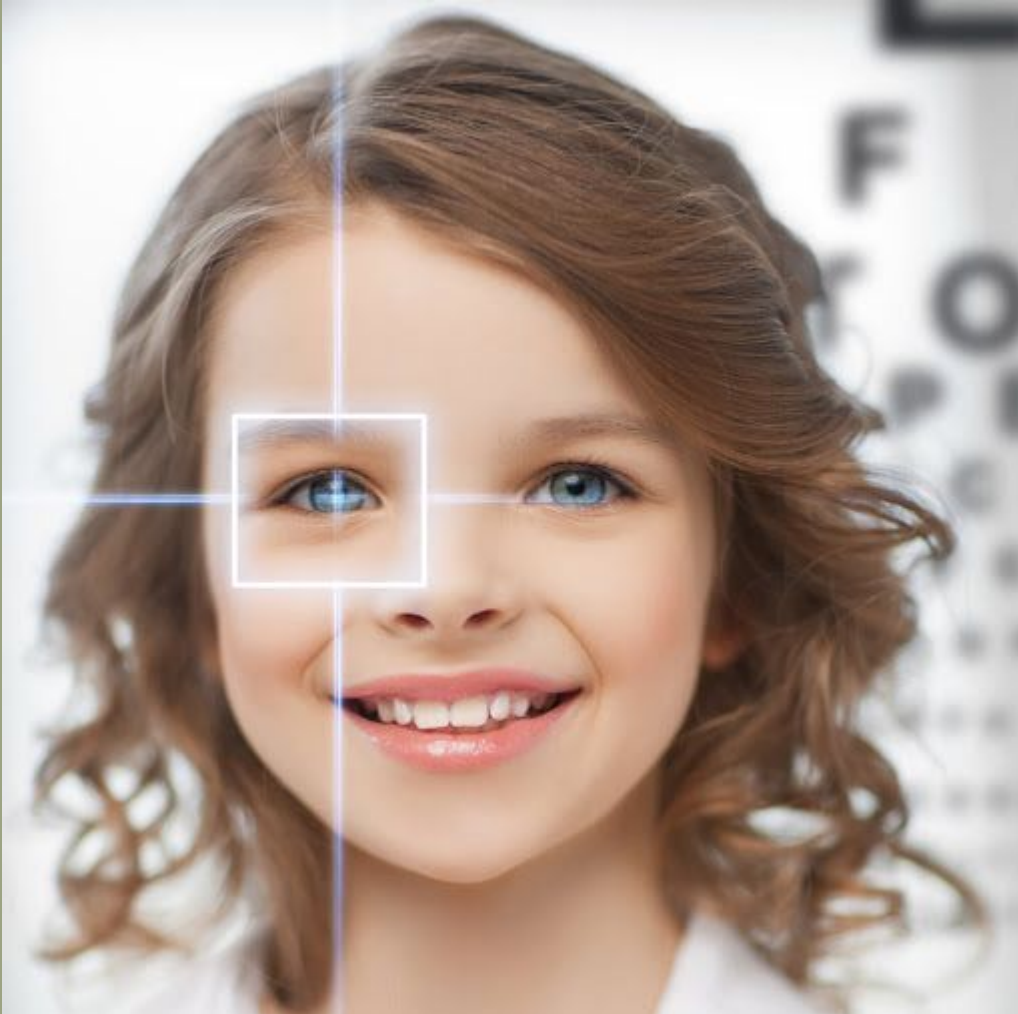
طب العيون عند الأطفال

الفصل الأول

رقم المحاضرة: 8

اسم المحاضر: د. منار شعبان قاسم

GENERAL PRINCIPLES

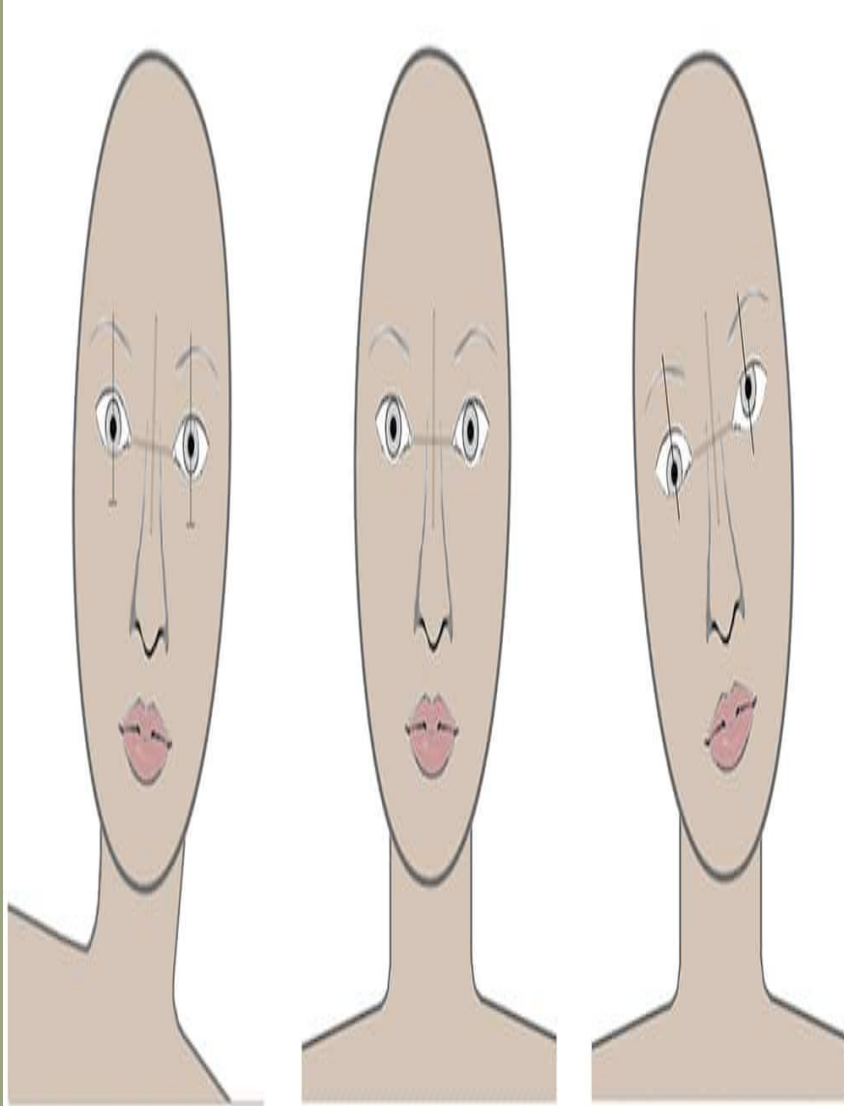


- Examination is **age-specific**: techniques for a newborn are different from those for a verbal child
- Use **observation**, **distraction**, and **play**
- Always start with **least invasive** tests **first**
- Examination usually requires a **dim**, **quiet** room for **infants** and **toddlers**
- In uncooperative children
 - ☐ **dilating** drops
 - ☐ **Sometimes** examination under **anesthesia**

HISTORY TAKING



- **Perinatal history**
 - ✓ prematurity + oxygen therapy → risk of retinopathy of prematurity **ROP**
- **Family history**
 - ✓ Strabismus
 - ✓ Amblyopia
 - ✓ congenital cataract
 - ✓ Congenital Glaucoma



- **Developmental history**
- ✓ delayed milestones may indicate
— neurological or visual problems
- **Symptoms:**
- ✓ poor fixation
- ✓ Squint
- ✓ abnormal compensatory head posture
- ✓ Photophobia
- ✓ poor school performance.

NEWBORNS (0–1 MONTH)

INFANTS (BIRTH– 1 YEAR)

TODDLERS (1–3 YEARS)



- Slit lamp usually cant be usefully used
- we can use:
 - ☐ Direct ophthalmoscope
 - ❖ A little bit Useful in anterior segment assessment
 - ❖ Limited in fundus assessment
- ✓ Only the optic disc and posterior pole
- ✓ Not the peripheral retina
- ☐ Indirect ophthalmoscope
 - ❖ Sometimes used in anterior segment assessment
 - ❖ Useful in fundus assessment even with mild media opacities

**PRESCHOOL CHILDREN AGED
3-5 YEARS**

**SCHOOL AGED CHILDREN 6-12
YEARS OLD**

TEENS 12-18 YEARS OLD

- ❖ slit lamp usually can be used in these age groups:
- ❑ provides detailed anterior segment assessment
- ❑ often needs cooperation
- ❑ can be combined with hand-held lenses for posterior segment inspection.



1. ANTERIOR SEGMENT



◆ globe size

◆ Eyelids:

• Look for:

- ☐ Position
- ☐ Lesions
- ☐ Inflammation / infection
- ☐ Congenital anomalies
- ☐ Functional aspects

• Normal eyelids are:

- ☐ Symmetrical
- ☐ well-positioned
- ☐ with smooth margins
- ☐ normal skin color and thickness
- ☐ complete closure



❖ lashes:

—● Look for:

✓ Direction

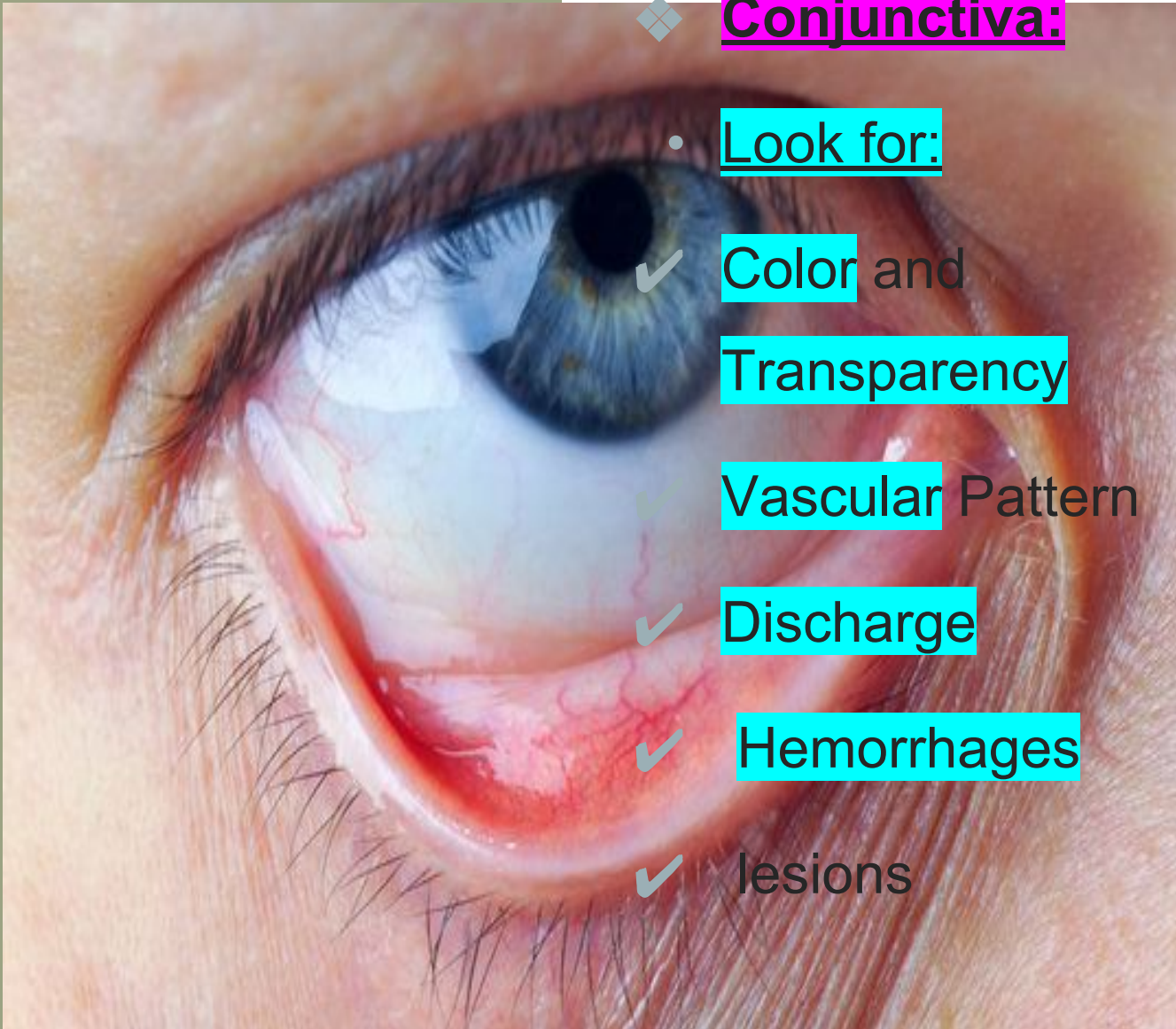
✓ density

✓ integrity

✓ color

changes

- Normal lashes are:
- evenly distributed
- well-aligned along the lid margin
- of uniform length and color
- directed outward without touching the cornea or conjunctiva.



❖ Conjunctiva:

• Look for:

- ✓ Color and Transparency
- ✓ Vascular Pattern
- ✓ Discharge
- ✓ Hemorrhages
- ✓ Lesions

• Normal conjunctiva is:

- ✓ smooth
- ✓ Transparent
- ✓ fine, regular blood vessels
- ✓ without injection, discharge, or swelling.

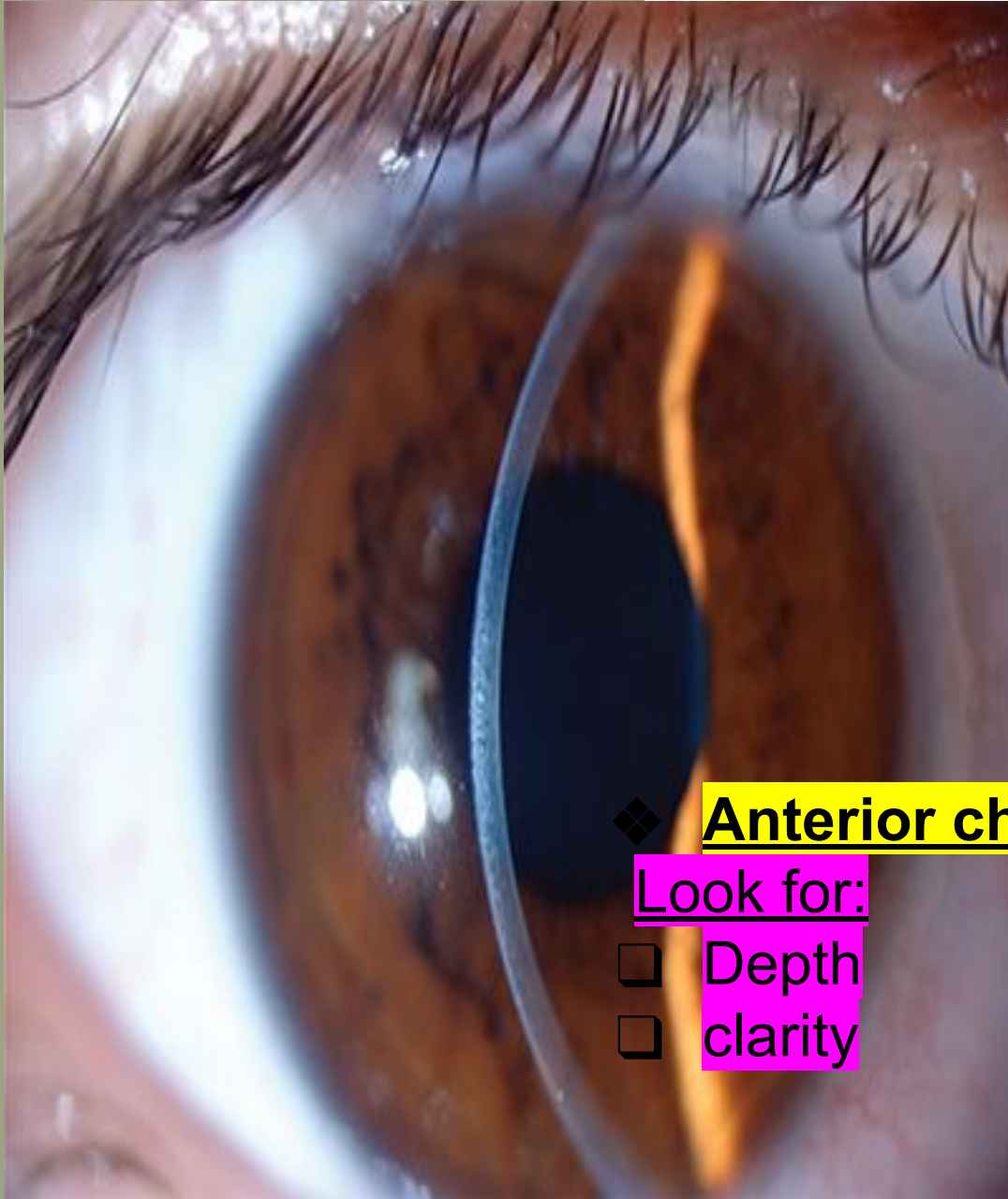
❖ Sclera:

Look for:

- ☐ Color
- ☐ Thickness
- ☐ Lesions

Normal sclera is:

- ☐ White,
- ☐ Smooth
- ☐ Firm
- ☐ glistening



◆ Cornea

Look for

- ☐ Clarity
- ☐ Size
- ☐ sensitivity

Normal cornea:

- ☐ Clear
- ☐ Smooth
- ☐ Bright
- ☐ avascular

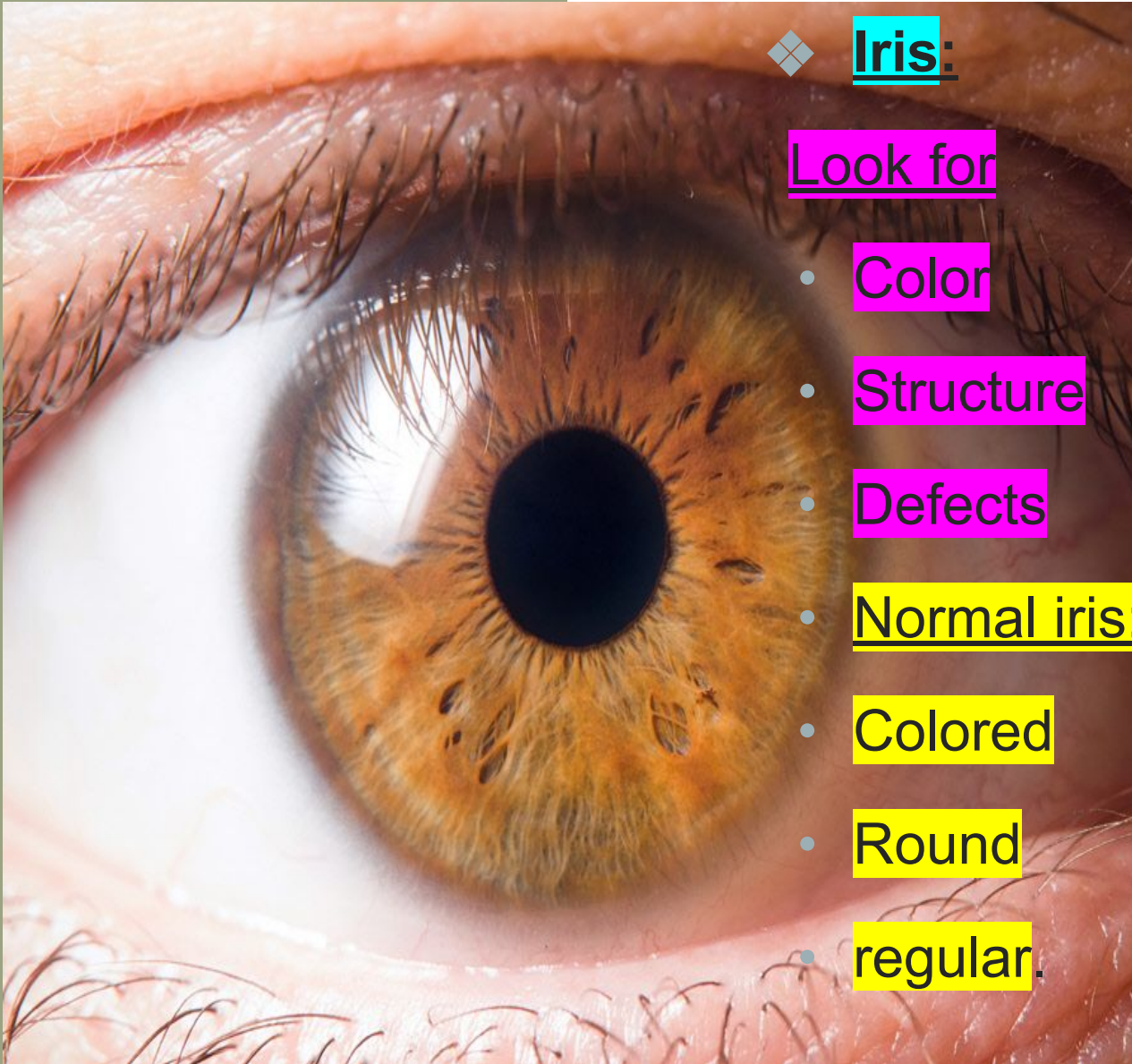
◆ Anterior chamber:

Look for:

- ☐ Depth
- ☐ clarity

Normal anterior chamber is:

- ☐ Deep
- ☐ Clear
- ☐ Quiet
- ☐ uniform.



❖ Iris:

Look for:

- Color
- Structure
- Defects

Normal iris:

- Colored
- Round
- regular.

❖ Pupil:

Look for:

- Size
- Shape
- Reactivity
- Symmetry

Normal pupil:

- Round
- Regular
- reactive

❖ Lens:

Look for:

- Transparency
- Position
- Shape

Normal lens is:

- Clear
- Central
- Biconvex
- transparent.

2. POSTERIOR SEGMENT



❖ Optic disc:

Look for:

- ☐ Color
- ☐ Size
- ☐ Shape
- ☐ Margins
- ☐ Cup
- ☐ vessels

Normal disc:

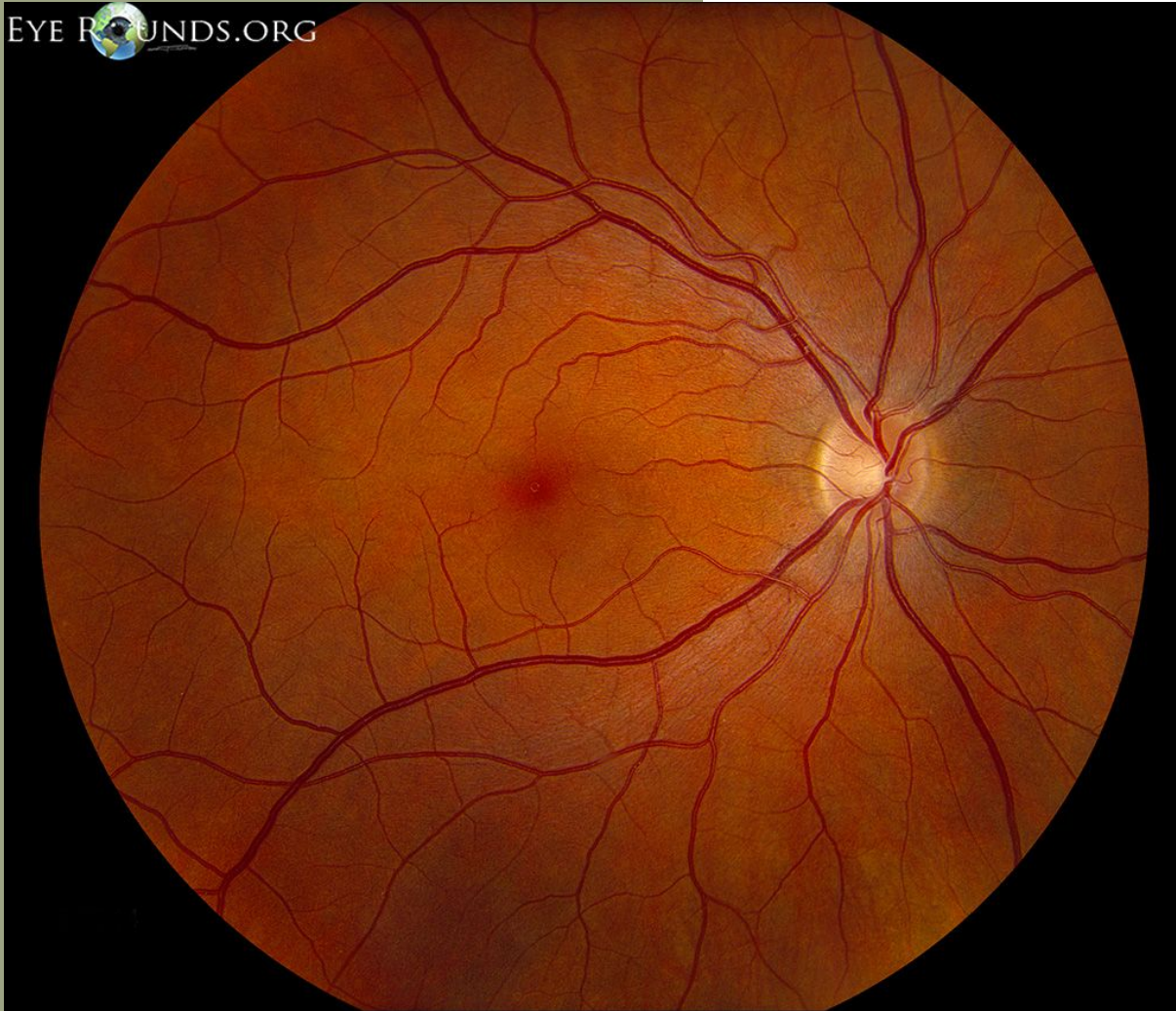
Pink

Round

sharp-margined

Cup / disc:

3/10



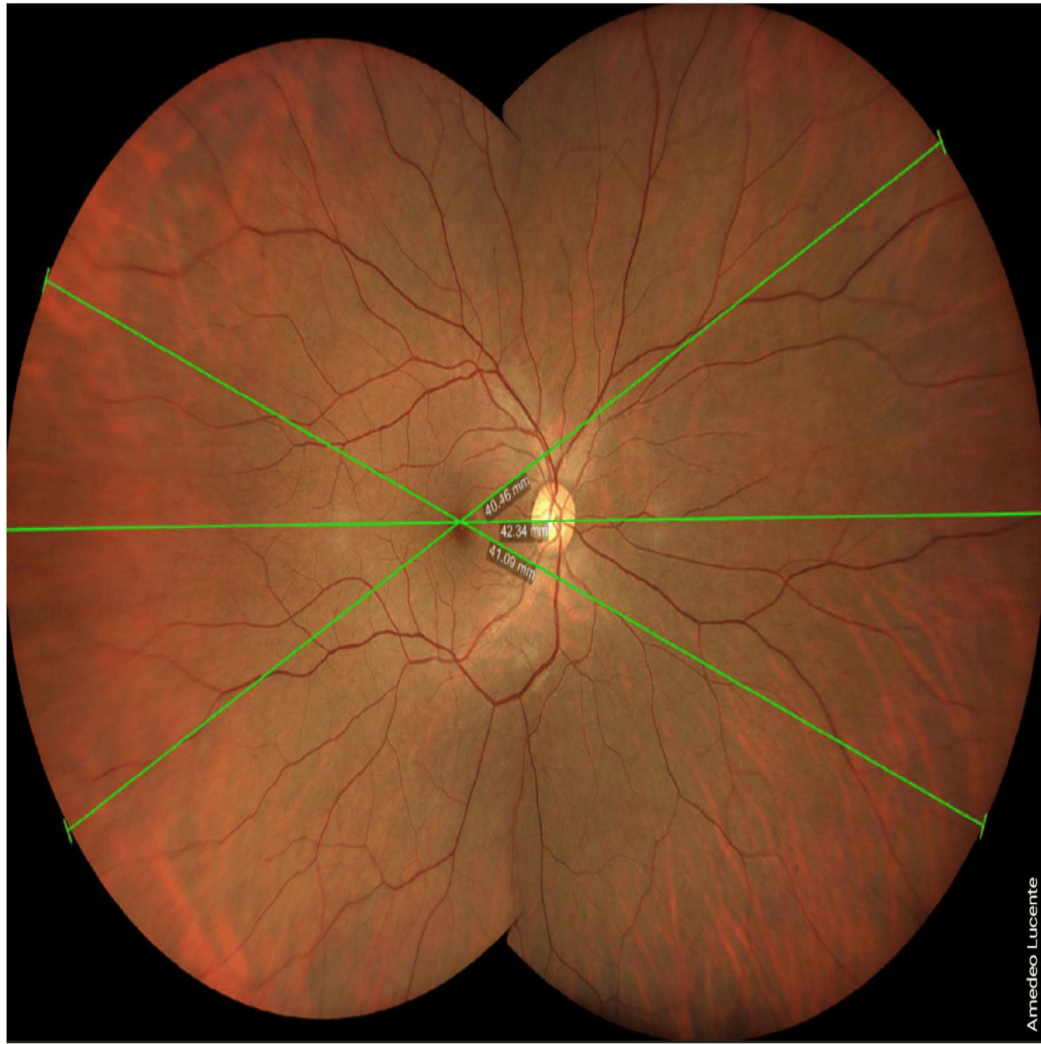
❖ **Macula:**

Look for:

- ☐ Foveal reflex
- ☐ Color
- ☐ Contour
- ☐ lesions

Normal macula:

- ☐ Presence of Foveal reflex
maybe absent in newborns
- ☐ Reddish- orange
- ☐ Intact
- ☐ attached



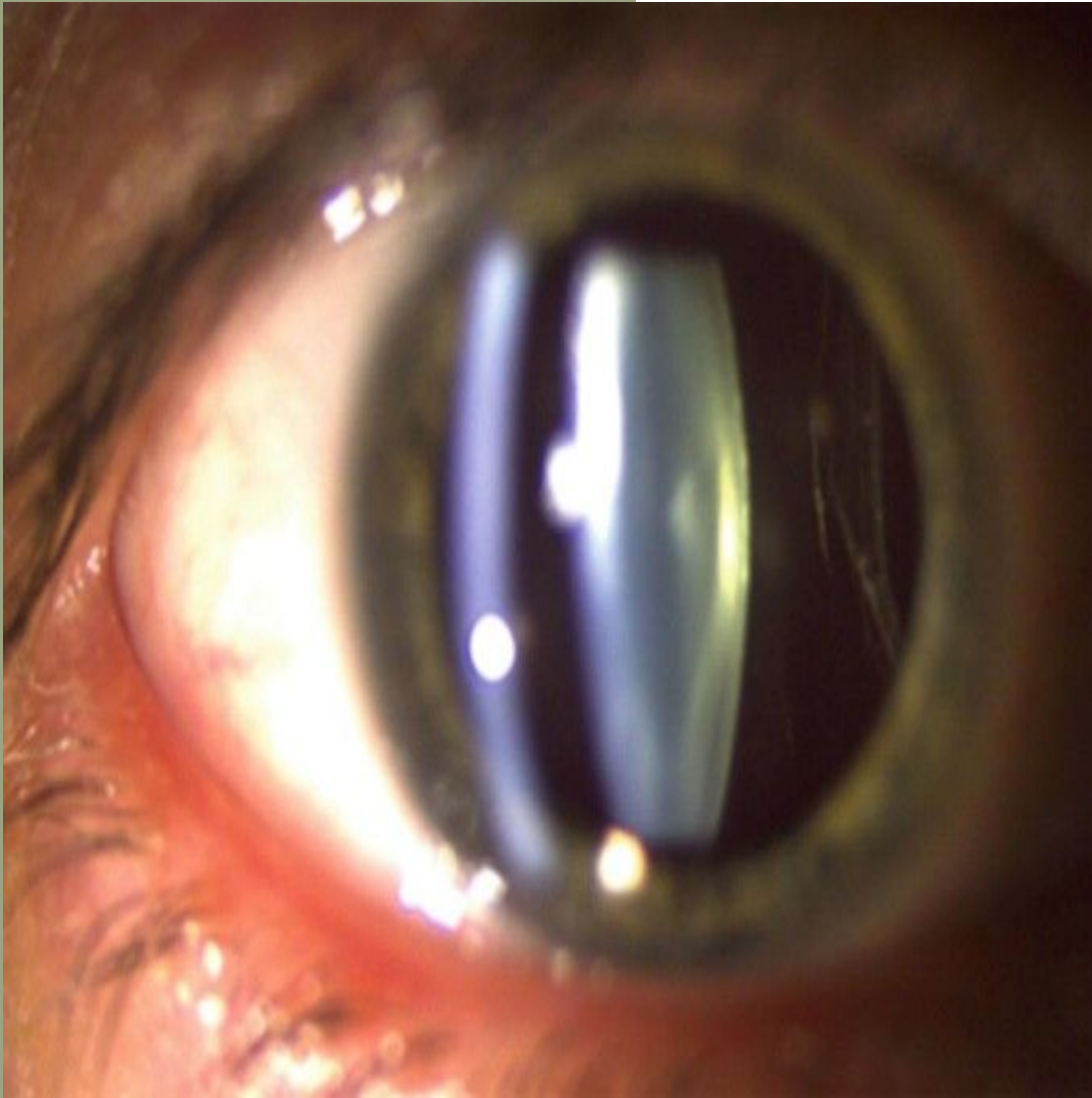
◆ Peripheral retina:

Look for:

- ☐ Structure
- ☐ Color
- ☐ vessels

Normal retina:

- ☐ Flat
- ☐ Smooth
- ☐ orange-red
- ☐ intact
- ☐ vessels
- ☐ uniform



❖ Vitreous:

Look for

- ❑ Clarity
- ❑ structure

Normal vitreous:

- ❑ Clear
- ❑ Transparent
- ❑ gel-like
- ❑ Avascular
- ❑ homogeneous