

SENSORY EXAMINATION



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- An infant who **cries to move** away from pinprick obviously perceives **pain**.
- A **sleepy infant** may be slow to respond and requires **repeated stimuli**.

- Withdrawal of the leg from painful stimuli may represent the **triple flexion spinal withdrawal** reflex in thoracic spinal cord lesion and should not be mistaken for active movement and presence of sensation
- Comparing the infant's reaction to pinprick on the arms or face differentiates actual sensory perception in such cases
- Older infants respond to touch and vibration by turning toward or moving away from the stimulus.

Milestones

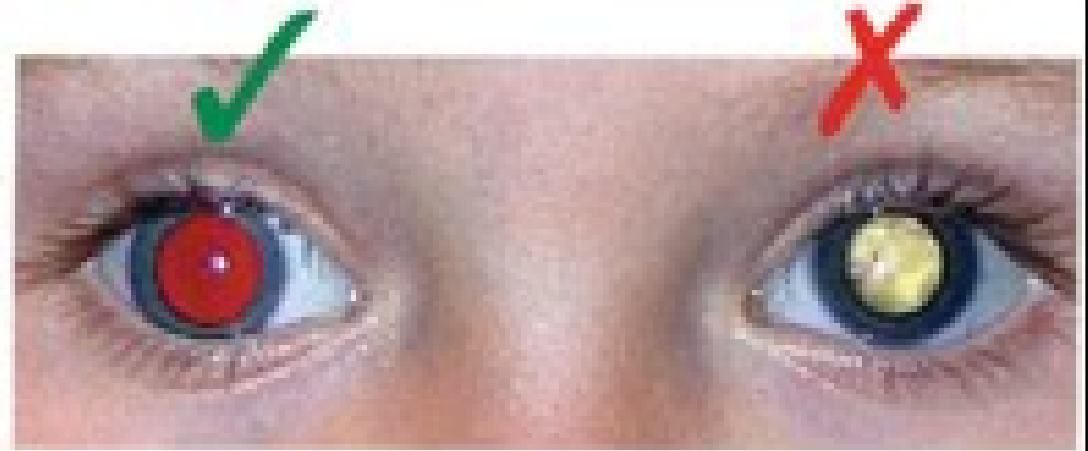
- 30 weeks - Blink to light
- 31 weeks - Pupils react
- 2 to 3 weeks - Early fixation
- Horizontal gaze - Birth
- Vertical - 2 months
- Fixate - Birth to 3 months
- Follow - 3 months

Other Visual Functions

- Color ? (3 months)
- Field – Adult-like 1 year

EXAMINATION OF VISION

External Inspection: Red Reflex Test



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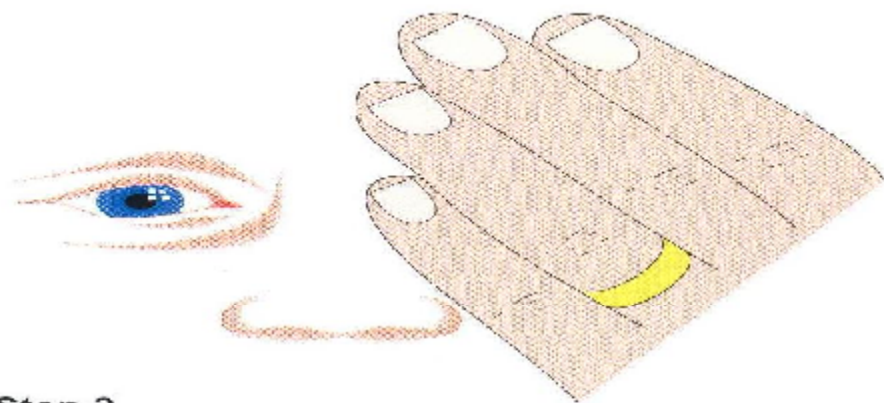
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EXAMINATION OF VISION

- Lens opacity, squint or nystagmus suggest the presence of visual impairment
- If you swing a newborn in your arms, he is likely to open his eyes sufficiently for you to see an obvious abnormality.
- Every newborn should have his red reflex examined before discharge.
- *Squint is looked for by shining a torch in front of the eyes and noting the light on both cornea. The reflex should be in the center of the pupil or at corresponding points on the two cornea.*

Step 1

Get the child to fix on an object. The good eye will look straight forward and this eye will be placed centrally: the right eye in this case. The squinting eye is turned inwards (medially).



Step 2

Cover up one eye. If the squinting eye is covered, the good eye remains fixed on the object, so **no movement** will be observed.

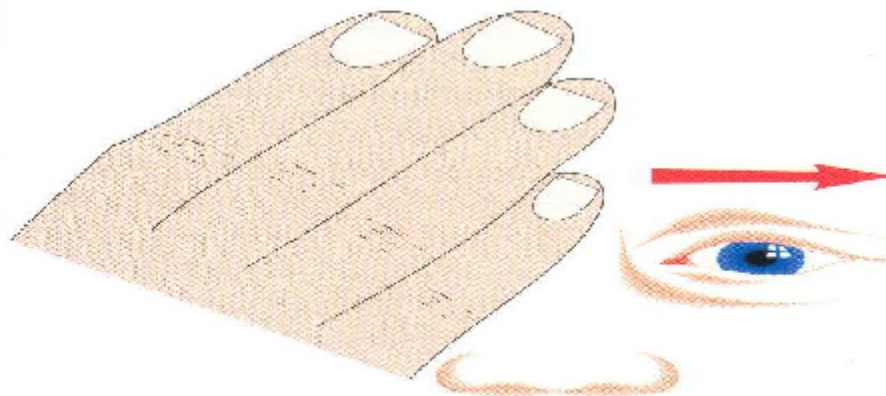


Step 3

When the hand is removed, there is still **no movement** as the good eye continues to watch the object.

Step 1

The child fixes on an object again. The good eye is placed centrally and the squinting eye is turned inwards.



Step 2

The good eye is now covered, so the squinting eye must take over in order for the child to continue looking at the object. To do this, the squinting eye **moves** to take up a central position.



Step 3

When the hand is removed, the child prefers to view the object with the left eye therefore takes over the right eye **moves again** back to its original position.

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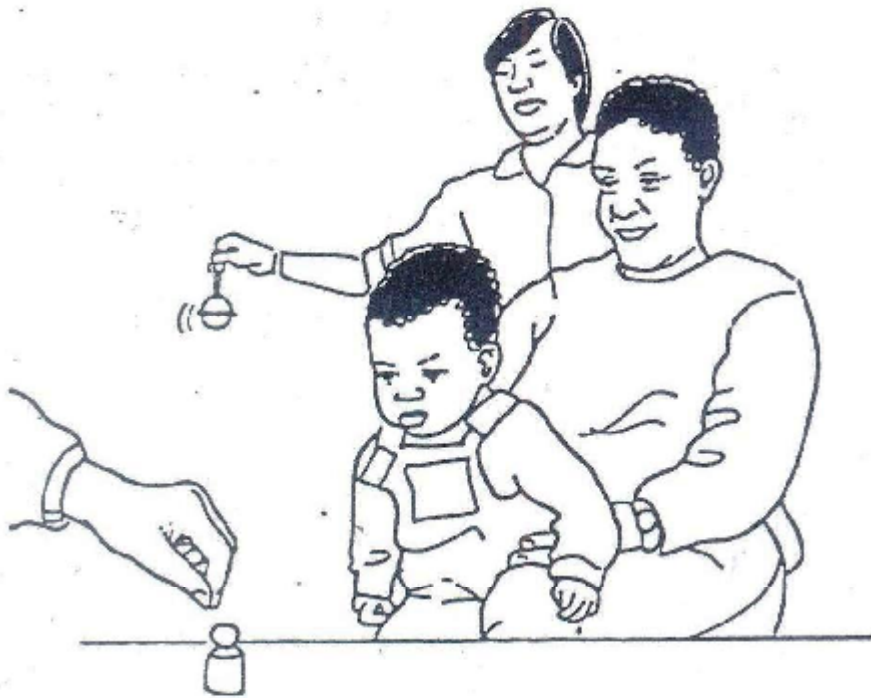
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- Normality of vision is observed by checking the ability to fixate and follow with the eyes. With baby in supine position a dangling toy or a patellar hammer is moved across 20 to 30cm from the face. Once the baby has noticed the object, he follows it from midline to side and back.
- By **5 to 6 months** of age baby would **reach out to get** the object which interests him.
- **Distant vision** is tested by showing a **bright colored toy two and half meters** from him and noting the interest taken by the child in following the object.

- Moving a bright light or attractive object across the visual field is used to test vision in **infants**.
- At **one month**, the infant will follow to midline and at **three months**, from side to side through a 180-degree arc.

EXAMINATION OF HEARING

- In first 3 months: 35 to 45cm from the ear and at the same level sound stimulus is applied with the help of crinkling paper, a small hand bell or a squeaky toy. Normal response is: startle reflex, A cry, A blink, quietening if crying.
- After 3 months: same sound stimulus applied at 30 to 45 cm from the ear. Child turns head to the sound.
- At 7 months: head turned for sound coming from below the ear level and at 8 months from above the ear level.
- At 10 months: sound stimulus is applied at 90cm from the ear. When in doubt refer to audiologist



Distracting the infant with a toy



Using Manchester rattle at ear level, infant turns head 90 degrees to sound source

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Figure 2.15: Hearing. Turns towards so

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Best of luck



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