

## -The primary care examination

١. pretesting. الاختبار التمهيدي
٢. case history.
٣. confrontation testing اختبار المواجهة
٤. refraction.
٥. visual function testing.
٦. ocular health check. التحقق من صحة العين

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### Pretesting

- |                     |                         |                               |
|---------------------|-------------------------|-------------------------------|
| A/Auto refraction   | B/Non contact tonometry | C/Automated visual field test |
| D/color vision test | C/stereo vision test    | E/Lensometry.                 |

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### History

Observe the patient for any abnormality or ptosis, pseudo squint, head posture  
Age of onset, family history, ask about squint constant or intermittent, unilateral or  
Alternating, ask about diplopia, perinatal history, drug history, trauma, old photographs.

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### Confrontational testing

١. Visual acuity(VA) distance and near.
٢. cover test distance and near.
٣. near point of accommodation (NPA).
٤. near point of convergence (NCP).
٥. pupillary distance (PD).
٦. Extraocular motility test
٧. pupil testing.
٨. Confrontational visual field.
٩. keratometry.

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### Refraction

- 1. Retinoscope .
- 2. Monocular subjective refraction (the subjective measurement of refractive error)
- 3. binocular balance .

### **Visual function**

- 1. phoropter.
- 2. Binocular vision ( phoria or vergence)
- 3. Accommodation.

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### **Ocular health check**

- 1. slit lamp examination.
- 2. Direct ophthalmoscope.
- 3. binocular indirect ophthalmoscopy .
- 4. the examination of the physical health of the eye .

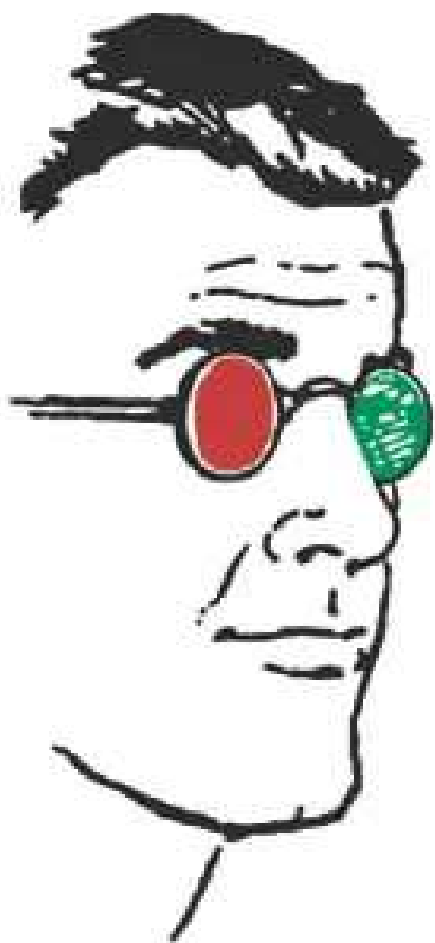
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### **Examination techniques for child**

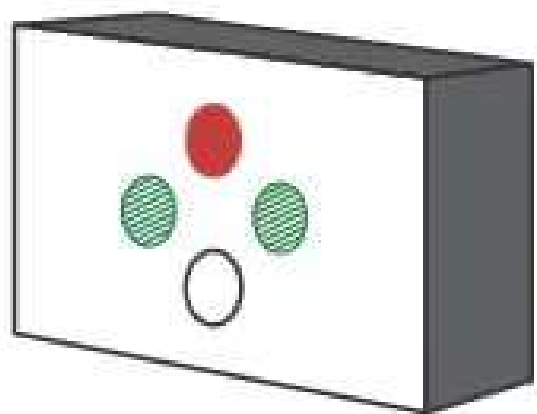
- 1. start with inspection.
- 2. Be friendly.
- 3. toys.
- 4. avoid white coats .

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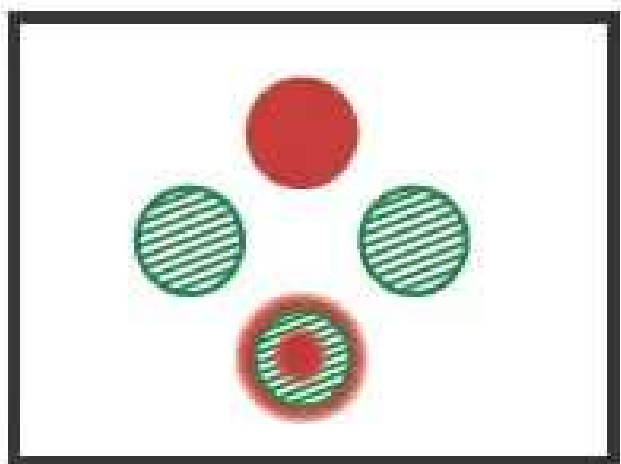




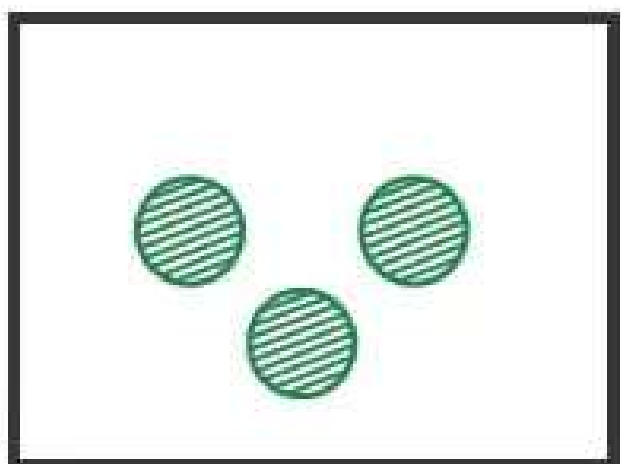
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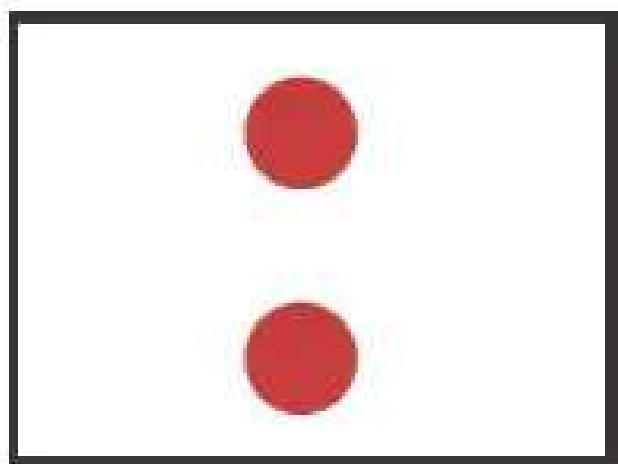
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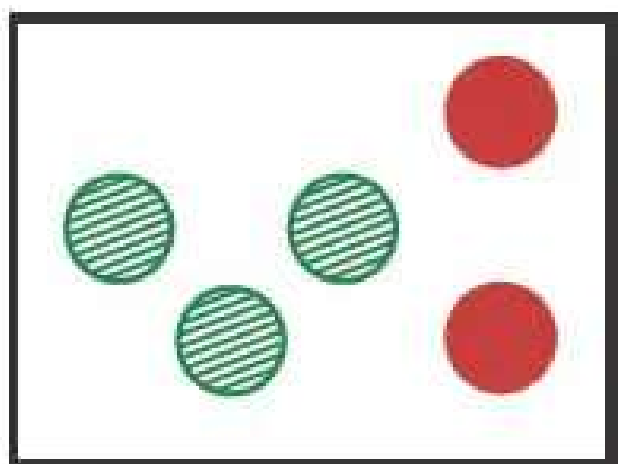
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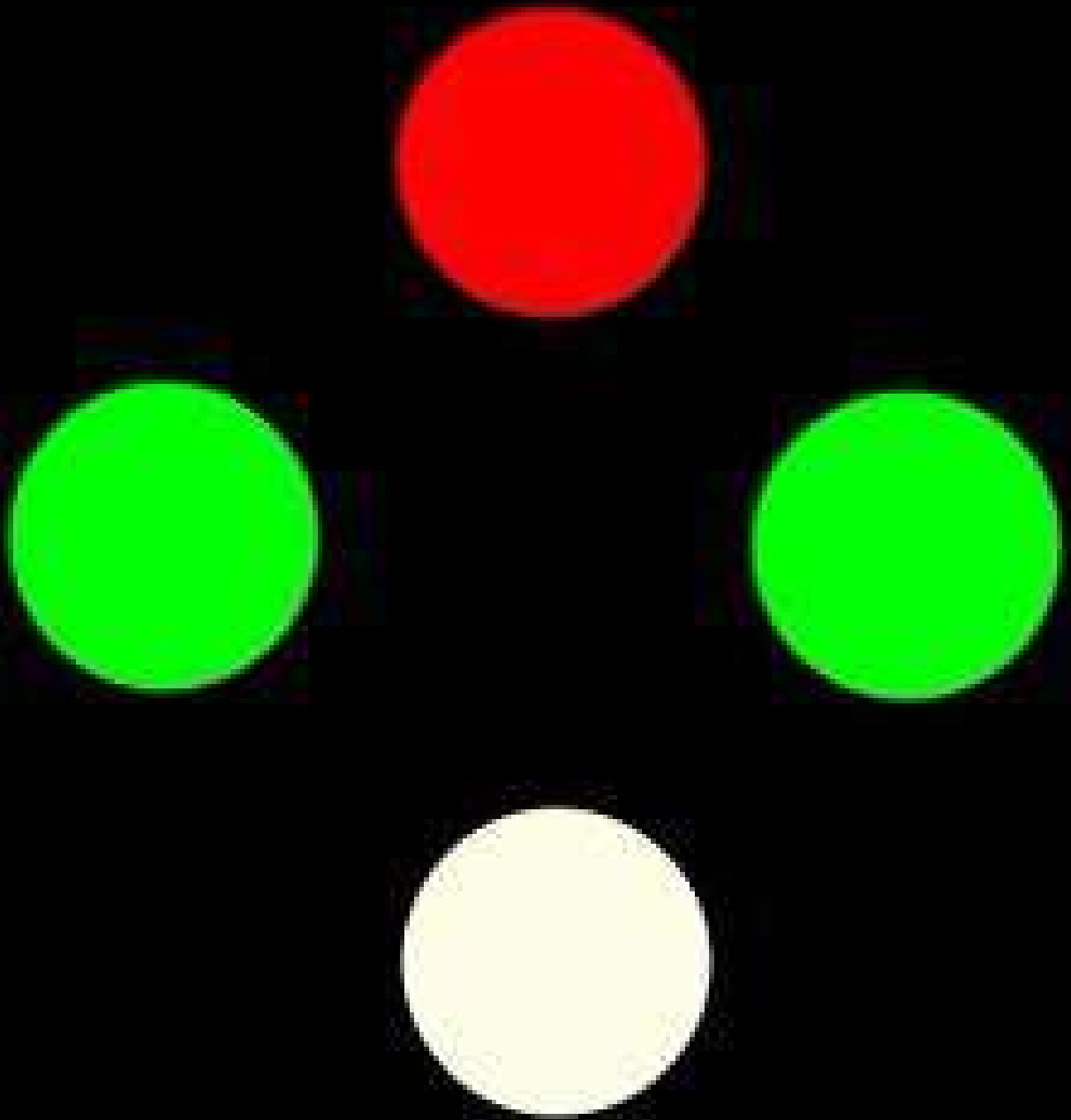


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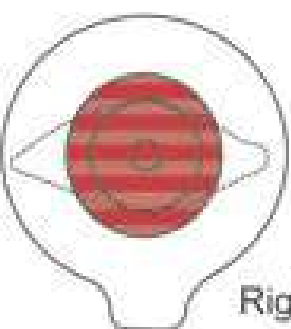


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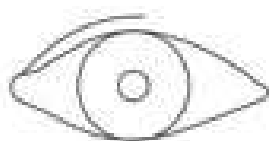




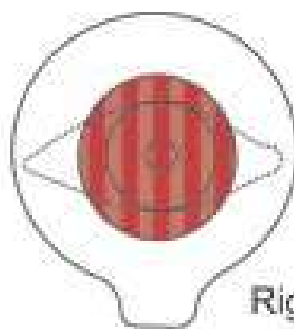




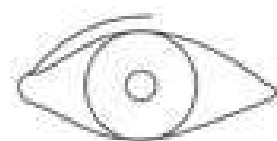
Right eye



Left eye



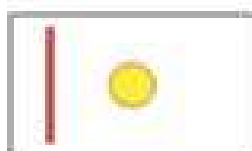
Right eye



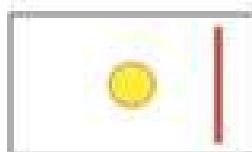
Left eye



Orthophoria



Exophoria



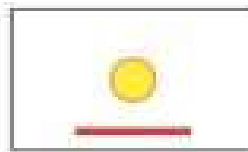
Esophoria



Orthophoria



Hypophoria



Hyperphoria

Maddox rod test for horizontal and vertical heterophorias





Left hyperphoria

22  
20  
18  
16  
14  
12  
10

22-20-18-16-14-12-10-8-6-4-2-0 1-3-5-7-9-11-13-15  
Exophoria Esophoria

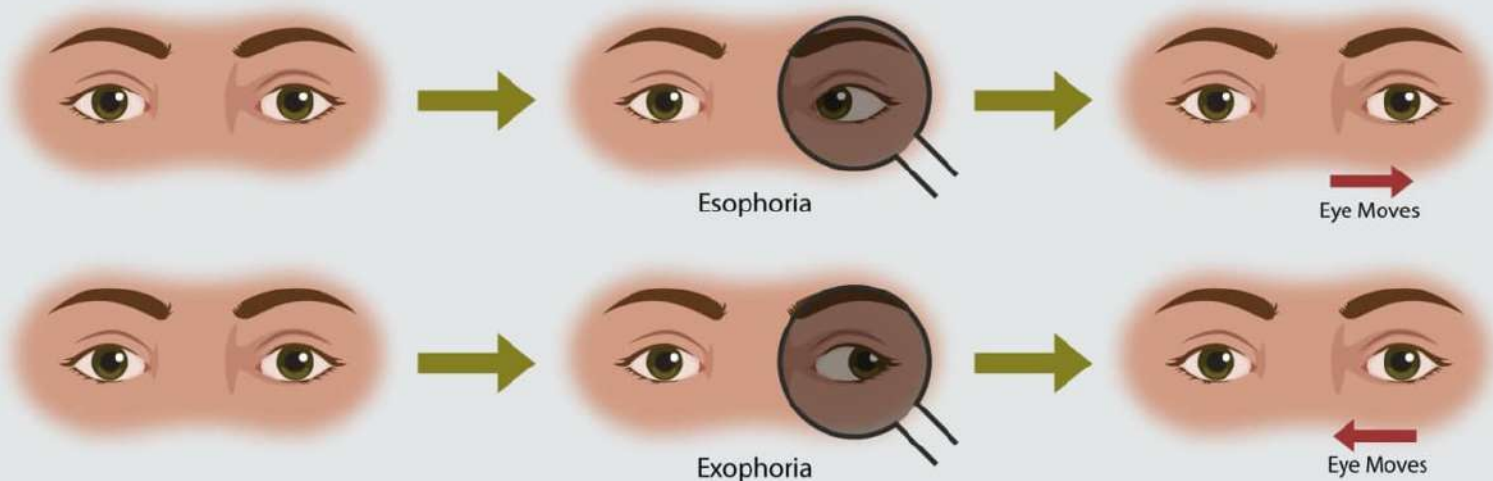


incy | | |  
excy

6  
4  
2  
0  
1  
3  
5  
7  
9  
11  
13

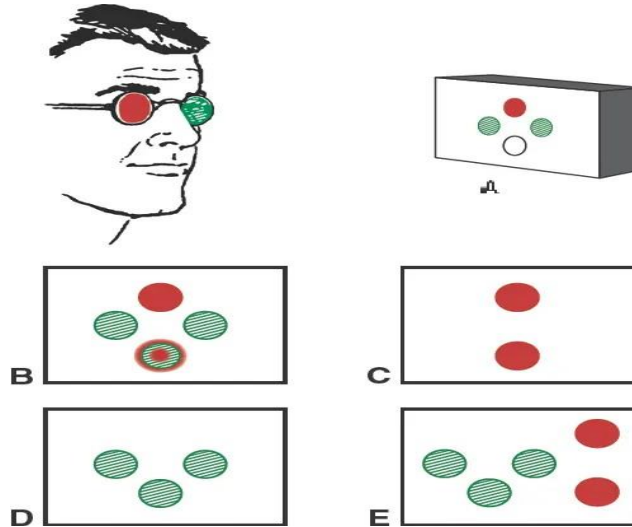
Right hyperphoria

# Cover-uncover Test



## STRABISMUS

## Practical

**Worth four-dot test**

-This is a dissociation test that can be used with both **distance** and **near** fixation and differentiates between **BSV**, **ARC** and **suppression**. Results can only be interpreted if the presence or absence of a manifest squint is known at time of testing.

-the patient wears goggles with **red lens** in front of the **right eyes** and **green lens** in front of the **left eye** and views a box with four light : **one red** , **two green** and one white.

(a) If the patient sees all the four light in the absence of manifest squint, he or she has normal binocular single vision.

(b) In abnormal retinal correspondence, the patient sees four lights even in the presence of a manifest squint.

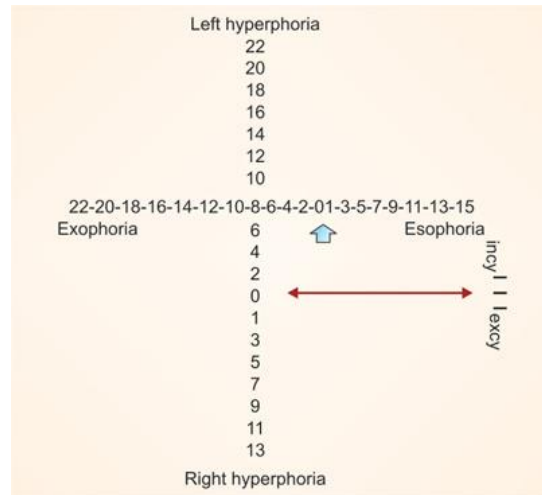
(c) When the patient **sees only two red lights**, it indicates **left suppression**.

(d) If the patient **sees only three green light**, he or she has **right suppression**.

(e) When he or she **sees three green light and two red lights**, **alternately**, it indicates presence of **alternating suppression**.

If the patient **sees five lights** (two red and three green), he or she has **diplopia**.

## **Maddox wing**



The Maddox wing dissociates the eyes **for near fixation** and measures **heterophoria**. The instrument is constructed in such a way that **the right eye sees only a white vertical arrow and a red horizontal arrow, whereas the left eye sees only horizontal and vertical rows of numbers**.

- Horizontal deviation is measured by asking the patient to which number the white arrow points.
- Vertical deviation is measured by asking the patient which number intersects with the red arrow.
- The amount of cyclophoria is determined by asking the patient to move the red arrow so that it is parallel with the horizontal row of numbers.

## **Maddox rod**

- a lens of red colored glass of (4-5) cylinders.
- put it in front of one eye ( right side) in trial frame.
- For distant fixation.
- Maddox rod change spot of light (bright spot)to red line.
- The patient seated in the chair in dark room.
- Wearing his glasses ,centering be exact.
- Spot of light at 6 meters.

Results:

- Horizontal deviation: cylinders running in horizontal direction.
- Orthophoria : bright spot in the center of the vertical red line.

● Exophoria: to the left of the light = crossed diplopia

● Esophoria : to the right of the light.

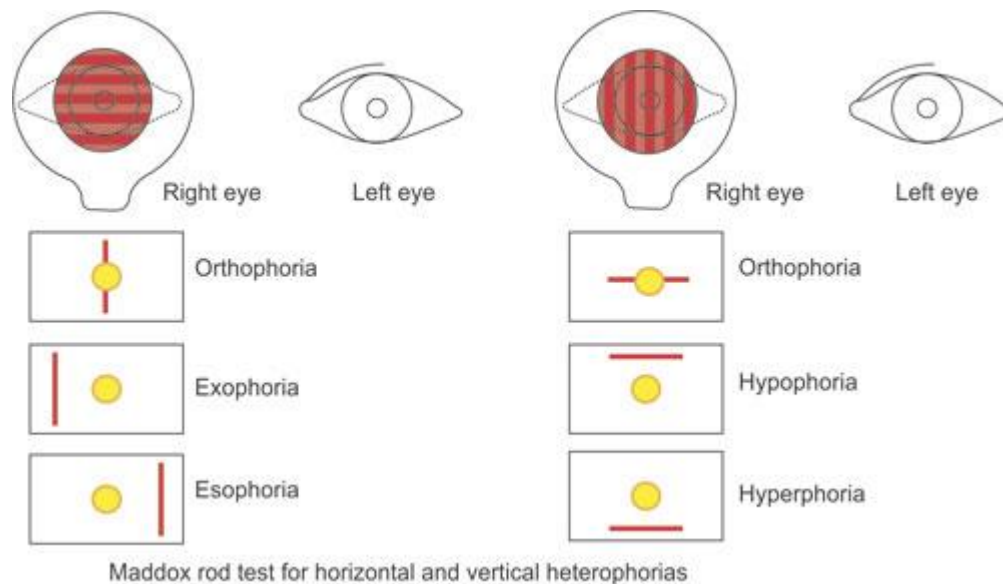
-Vertical deviation : cylinders running vertical direction.

Orthophoria : the line runs through the light.

R hyperphoria : the line below the light .

L hypophoria : the line above the light.

-Cyclophoria: Maddox rod is vertical , the red line runs obliquely.



Measurement angle of deviation

1. tangent scale: put on the wall.

2. strength of prism

-put in front of the rod or the other eye in order to bring the red line and the spot together.

Cyclophoria : rotate Maddox rod until the red line appears horizontal.

