

The logo of Galgotias University is a stylized 'G' composed of several overlapping, curved bands in shades of yellow, orange, and blue, set against a light pink circular background.

Accommodation- NPA

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ACCOMMODATION:

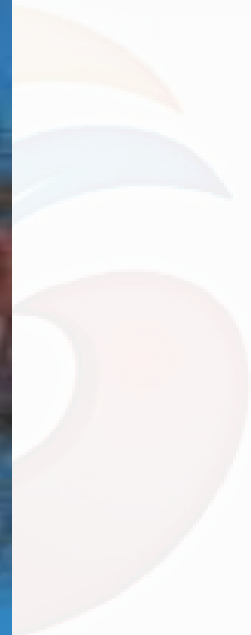
- ❖ The process by which the refractive power of the eyes is altered to ensure a clear retinal image is known as accommodation.

ACCOMMODATION:

- ❑ The stimulus to accommodation is the blurred retinal image
- ❑ Accommodation is measured in diopters(D)

NEAR POINT OF ACCOMMODATION

PUNCTUM Proximum :- The distance at which the eye can see a nearest object with maximum effort of accommodation is termed Punctum Proximum or near point of accommodation.



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FAR POINT OF ACCOMMODATION

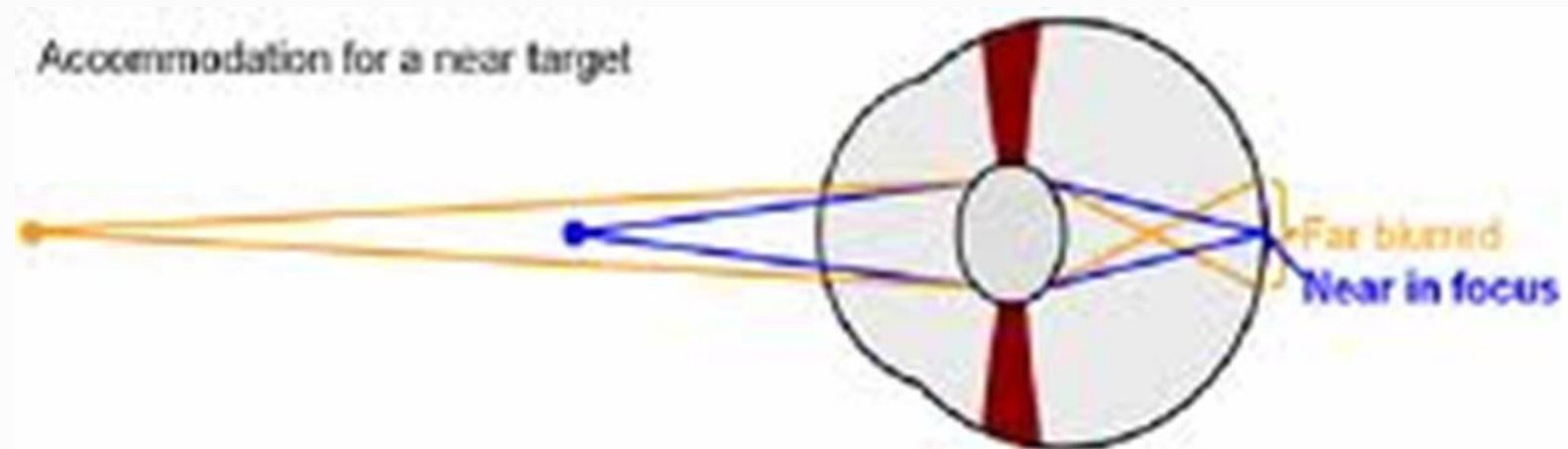
PUNCTUM Remotum :- The maximum distance at which the eye can see an object without any accommodative effort is termed Punctum Remotum or far point of accommodation.

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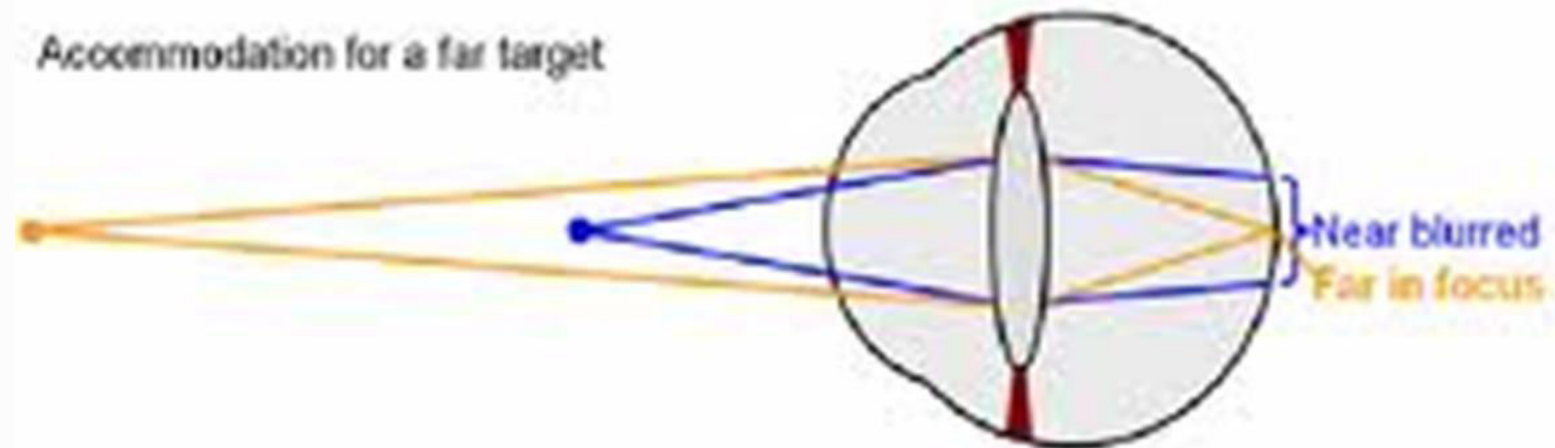


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Accommodation for a near target

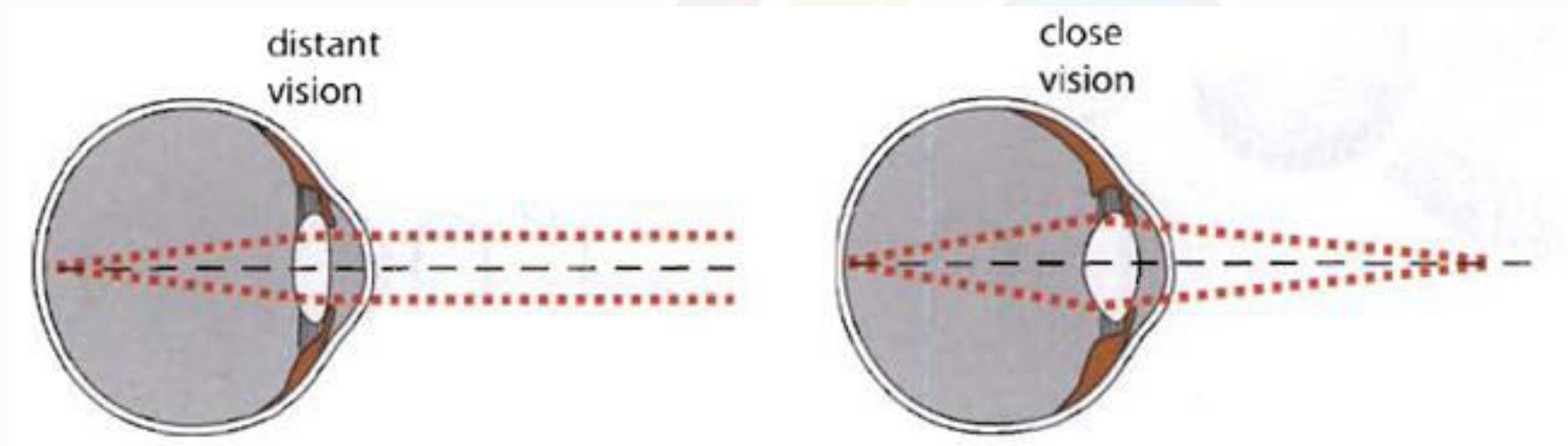


Accommodation for a far target



NEAR VISION COMPLEX

- ❑ Association of accommodation, convergence, and pupillary constriction during fixation at near may be termed the near vision complex



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RANGE OF ACCOMMODATION

✓ The range from infinity to the near point of accommodation is the range of accommodation

✓ *Range of Accommodation is*

$$a = r - p$$

a = range of accommodation

r = Punctum remotum

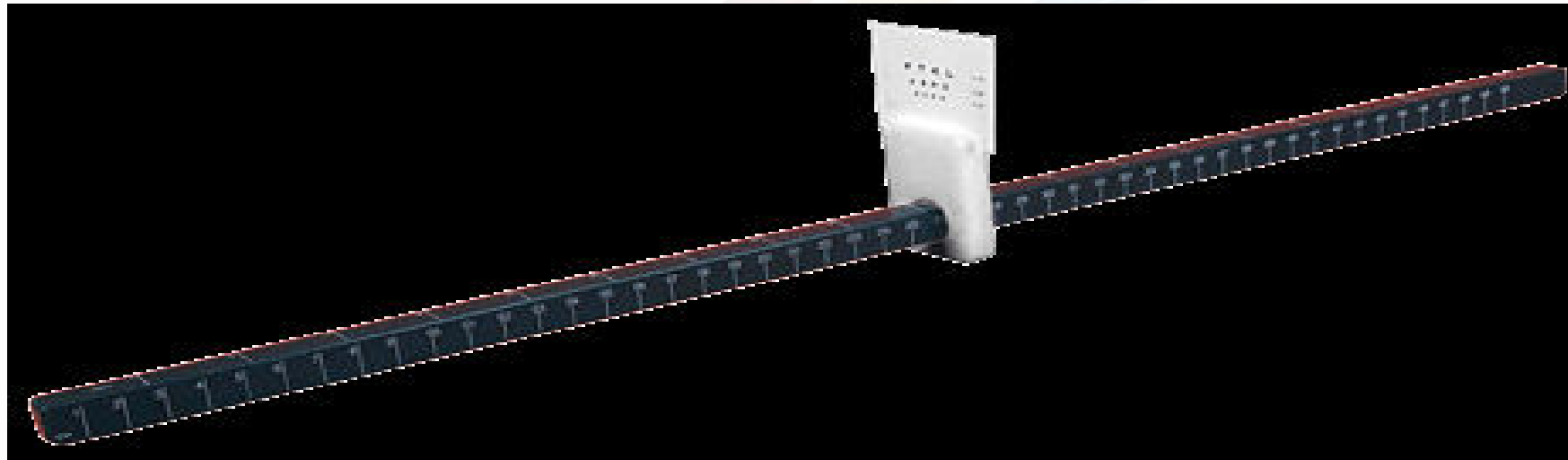
p = Punctum Proximum

Amplitude of Accommodation

- *The difference in the dioptric power of the eye when it is focused for the far point and near point is termed as amplitude of accommodation*

HOW TO MEASURE NEAR POINT OF ACCOMMODATION?

- ❖ The near point of accommodation is measured monocularly for each eye as well as binocularly while the patient wears his or her glasses or contact lenses, if any.



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For monocular determination of the near point of the accommodation.

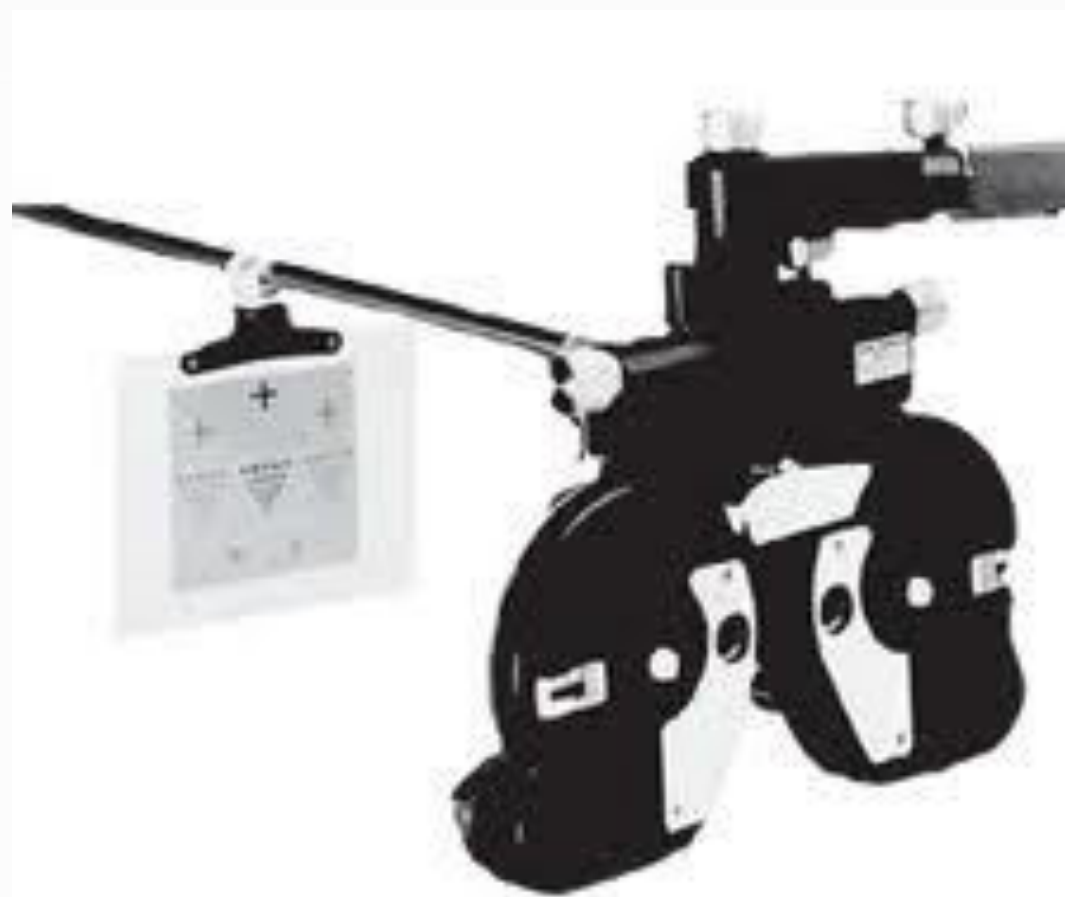
The left eye is occluded (it is convenient to have the patient hold the occluder)

And the patient is asked to keep 20/20 row of letters on the reduced Snellen chart in shape focus as the card is moved closer

The patient is to report when this row of letters begins to blur and remains blurred.



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****Refractor Not Included**

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When the blur is reported the near point of accommodation is recorded as the distance (in cms) from the test card to the spectacle plane of the eye

The test is repeated with right eye occluded and is then repeated binocularly.

References

- Clinical Optics, A R Elkington
- Optics for Optometry students
- Geometric, Physical and Visual Optics, Michael Keating
- Geometrical and Visual Optics, 2nd edition, Steven Schwartz

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THANK YOU...!!!

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