



# Optical instruments

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## Lecture 6

### Vision Therapy

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# Binocular vision

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it keeps our eyes aligned and in sync. Whenever we are focussing on a particular object or following a target in our sight, our brains fuse the images for each eye together, so that we constantly perceive one image.

A good binocular system also allows us to see the world in 3D.



# Haploscope

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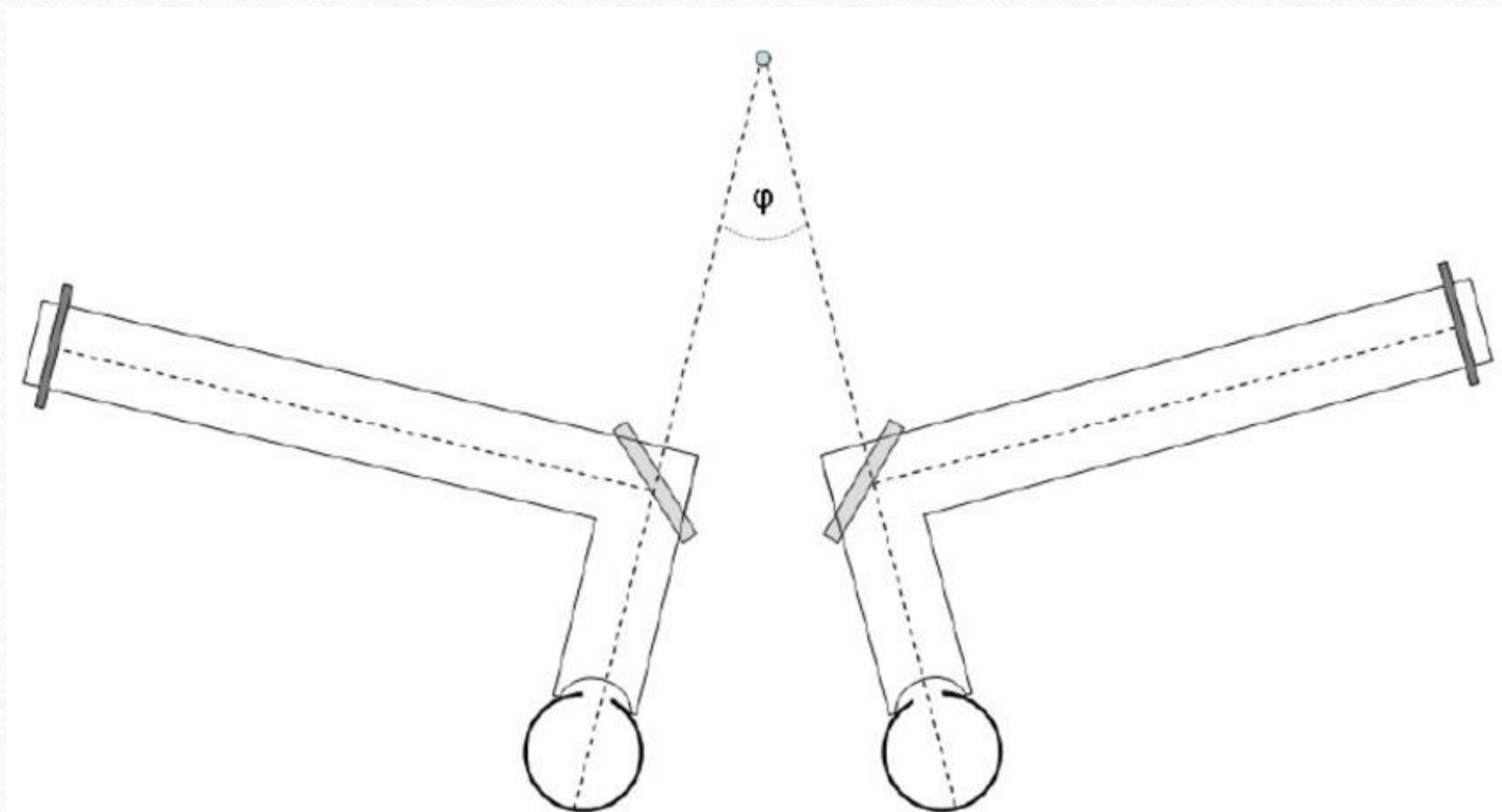
Is an orthoptical device used to present a specific picture to each eye and have been employed for more than 70 years for binocular training (investigation of Binocular Vision)

# Consist of

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It consists of two arms that can be turned around their vertical axes. Different pictures can be displayed for both eyes via mirrors.

While a person fuses both images the angle between the arms of the haploscope can be varied as desired.





# Vision Therapy

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It is a non-invasive method, popularly used by many optometrists to manage different eye conditions.

This technique involves exercises that can help improve the working relationship between the neurological and visual systems.

# Types of vision therapy

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1. Pencil Push-Up Therapy
2. Computer Programs
3. Prism or Lens Fixation
4. Patching
5. Vision Rest

# Pencil Push-Up Therapy

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This eye exercise aims to correct binocular visual disorders like strabismus.

To start the therapy hold a pencil at arm's length.

Draw the pencil towards the nose while keeping a clear focus. Repeat the exercise when the pencil begins to appear as a double image.

Do the exercise several times per day.



# Vision Rest

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Individuals who spend lengthy periods focusing on computer screens should follow the 20/20/20 rule. This suggests resting your eyes after 20 minutes of computer use for at least 20 seconds while looking at an object that's 20 feet away