Notes: Eye Reflexes

A healthy person has a number of eye reflexes:

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* \_
* \_
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**Pupillary Light Reflex**

* The reflex that controls the of the pupil (its )
* This is a response to of light (brightness)
* Allows us to adapt to different light levels
	+ \_ light → pupil
	+ \_ light → pupil



**Vestibulo-ocular reflex**

* Sometime called the “doll’s head reflex”
* Links eye movement with the
	+ The system that controls and
* Trying to image on the retina during head movement by moving the eyes in the direction of head movement
	+ This way the image stays in the centre of the field of vision

**Corneal Reflex**

* Also known as the
* Caused by the stimulation of the
	+ Example: when something your eye or
	+ Can also happen with really
* Trying to the eye from foreign bodies and bright light

**Accommodation Reflex**

* How the eye on near and far objects
	+ Changes in , lens and pupil



This you need to know for the test!

# Reflexes

|  |  |
| --- | --- |
| Reflex | Personal Example |
| Pupillary Reflex |
| Near /Far* You look \_\_\_\_\_\_\_\_\_\_\_\_\_ pupil is \_\_\_\_\_\_
* You look \_\_\_\_\_\_\_\_\_\_\_\_\_ the pupil is \_\_\_\_\_\_

Light/ Dark* + In \_\_\_\_\_\_\_\_\_\_\_\_\_ your pupils get \_\_\_\_\_\_\_\_\_\_\_\_\_, so less light will get in
	+ In \_\_\_\_\_\_\_\_\_\_\_\_\_ your pupils get \_\_\_\_\_\_\_\_\_\_\_\_\_ to let in more light.

Love/Hate* + Your pupils get \_\_\_\_\_ when you look at someone you \_\_\_\_\_\_\_\_\_\_ (or have a crush on).
	+ They get \_\_\_\_\_when you look at someone you \_\_\_\_\_\_\_
 | **Near /Far*** You look at the board pupil is big.
* You look at you paper, pupil is small

**Light/ Dark****Love/Hate** |
| Adaptation |
| * In \_\_\_\_\_\_\_\_\_\_\_\_\_your retina uses the \_\_\_\_\_\_\_\_\_\_\_\_\_
* In \_\_\_\_\_\_\_\_\_\_\_\_\_your retina uses the \_\_\_\_\_\_\_\_\_\_\_\_\_
* It takes about ten seconds to switch from one to the

other  | * You are playing outside in the snow and you come inside and it’s so dark it’s hard to see but after a few seconds it seems normal again.
* You are at a matinee movie and you come outside into the sun. It’s so bright it hurts your eyes. But then you get used to it.
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| After Images |
| Negative after images* + Look at a \_\_\_\_\_\_\_\_\_\_\_\_that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ When you look at a paper you see the \_\_\_\_\_\_\_\_\_\_\_\_ colour.

Positive after images* + Look at a \_\_\_\_\_\_\_\_\_\_\_\_
	+ Close your eyes and you can still see them. Your retina is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and keeps firing
 | * Look at red for a long time then look at a white paper. You see green
 |
| Peripheral Vision |
| Peripheral vision* If you are looking \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_but can still see something \_\_\_\_\_\_\_\_\_\_\_\_ you.

Movement vs colour* Most of your retina is covered with \_\_\_\_\_\_\_\_\_so you can see \_\_\_\_\_\_\_\_\_\_\_\_ first.
* Your \_\_\_\_\_\_\_\_are only in the \_\_\_\_\_\_\_\_\_\_\_\_. You can see \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_before \_\_\_\_\_\_\_\_\_\_\_\_
 |  |
| Reflexes with 2 eyes |
| Binocular vision* your \_\_\_\_\_\_\_\_\_\_\_sees a slightly different picture from your \_\_\_\_\_\_\_\_\_\_\_.
* Your brain sees these two images and interprets them as \_\_\_\_

Blind spot* Each eye has a \_\_\_\_\_\_\_\_\_\_\_where the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ leave the eyes.
* They’re in \_\_\_\_\_\_\_\_\_\_\_ places in each eye. As long as you have two eyes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | * It’s hard to thread a needle with just one eye.
 |
| Near point accommodation |
| Convergence* When you look at something \_\_\_\_\_\_\_\_\_\_\_your medial rectus muscles bend your eyeballs \_\_\_\_\_\_\_\_\_\_\_
* When you look \_\_\_\_\_\_\_\_\_\_\_the muscles relax and your eyeballs are \_\_\_\_\_\_\_\_\_\_\_
 | * You can hold your arm up and cover the moon with your thumb.
* But the brain knows one is close and the other is far because it feels the muscles move.
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