



THE NORMAL EYE

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THINK

Somebody in your community has a problem with a sore eyelid and asks you for help. How will you know what is wrong if you don't know what a normal eyelid should look like?

WHAT YOU WILL LEARN

When you have worked through this unit you should be able to:

- Recognise a normal and healthy eye.

EYELIDS

- To examine the eyelids you need to look at the skin of the eyelids and the lid margin.

NORMAL EYELIDS:

- Open and close properly
- Look clean
 - No white scales
 - No pus
 - No debris or crust
- Look smooth
- No lumps
- No ulcers
- Have lashes that turn away from the eyeball
- Do not look red, puffy or swollen
- Right and left upper lids are symmetrical
- No drooping lid.



Figure 1: The eyelids protect the eyes



Figure 2: Eyelashes turning away from the eyeball



Figure 3: This person's right eye has a drooping eyelid

EYELID CONJUNCTIVA

NORMAL EYELID CONJUNCTIVA:

- Looks pink, not red
- Is clear with a few small blood vessels
- Has no lumps or growths
- Has no foreign bodies (like sand or grit)
- Has no pus.



Figure 4:
*Palpebral conjunctiva of the upper eyelid
(photo courtesy of the Brien Holden Vision
Institute)*

SCLERA AND BULBAR CONJUNCTIVA

- To look at the sclera and bulbar conjunctiva:
 - Gently hold the eyelids open using your thumb and first finger
 - Use your thumb to hold the bottom eyelid against their cheek and your first finger to hold the upper eyelid against the brow.
 -

A HEALTHY BULBAR CONJUNCTIVA:

- Should be clear and smooth
- No lumps or growths
- Has no foreign bodies
- Allows a clear view of the white sclera
- Has only a few small blood vessels, no red parts
- No pus, watering or bleeding.

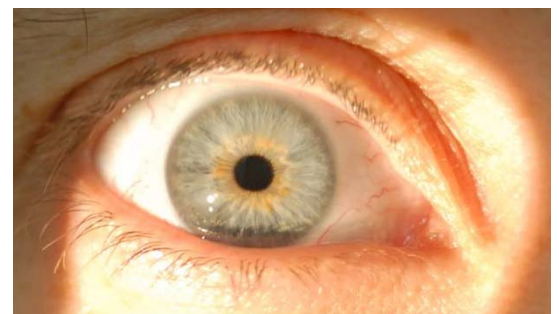


Figure 6: *The bulbar conjunctiva and the
underlying sclera*

CORNEA

A HEALTHY CORNEA:

- Should be clear and smooth
- No lumps or growths
- No scars
- Has no foreign bodies
- Allows a clear view of the iris
- No blood vessels and no red parts



Figure 7: The cornea is transparent and lets light into the eye

[Photo courtesy of the Brien Holden Vision Institute]

PUPILS

EXAMINING THE PUPILS:



Figure 8: The pupils are the black holes in the middle of the iris

- Look at the size of both pupils
- Look at the colour of both pupils
- Shine a light into the person's right eye
- Both the right and left pupils should get smaller
- Take the light away
- Both the right and left pupils should get larger
- Shine a light into the person's left eye
- Both the left and right pupils should get smaller
- Take the light away
- Both the left and right pupils should get larger.

Normal Pupils:

- Are black, not grey or white
- Are the same size
- Are round
- Get smaller when a light is shone into either eye
- Get bigger when the light is taken away.

INTERNAL EYE EXAMINATION

HEALTHY CRYSTALLINE LENS:

The normal lens:

- Is clear, not cloudy or discoloured
- Has no dark areas in the fundus reflex
- Is located behind the iris, not in the anterior chamber.

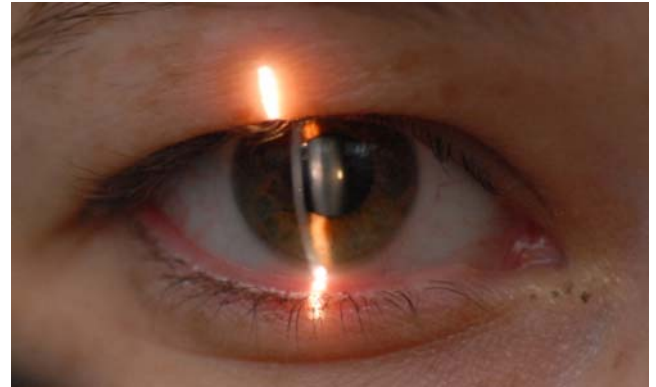
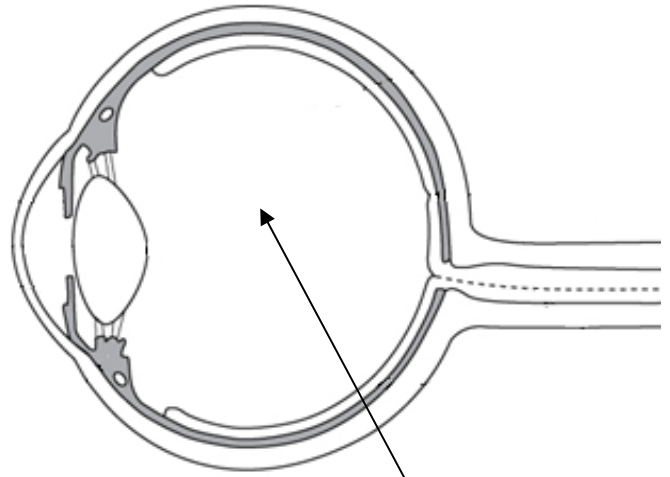


Figure 9: The clear crystalline lens is behind the iris

NORMAL VITREOUS CHAMBER:

The normal vitreous chamber:

- Is clear
- Contains no blood (which could be a haemorrhage in the vitreous)
- Has no new blood vessels
- Contains no dark spots or shapes.



Vitreous chamber containing vitreous

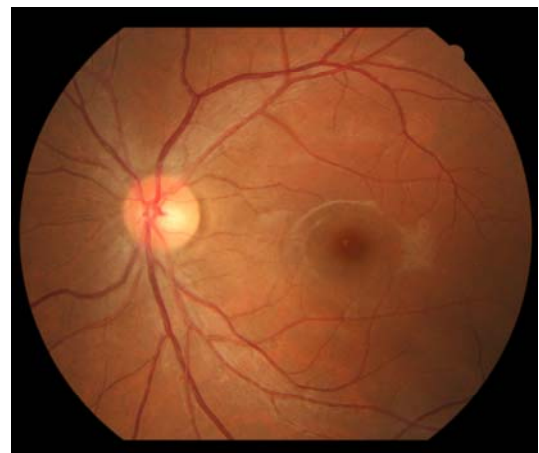
Figure 10: Vitreous chamber and vitreous

HEALTHY RETINA:

A normal retina:

- Should be one solid shade of red
- Has blood vessels that are intact and not leaking
- Shows no signs of blood haemorrhages (dot, blot, flame)
- Has no areas of discolouration (yellow-white patches)
- Contains no new blood vessels (neovascularisation)
- Shows no signs of rips or tears or detachment

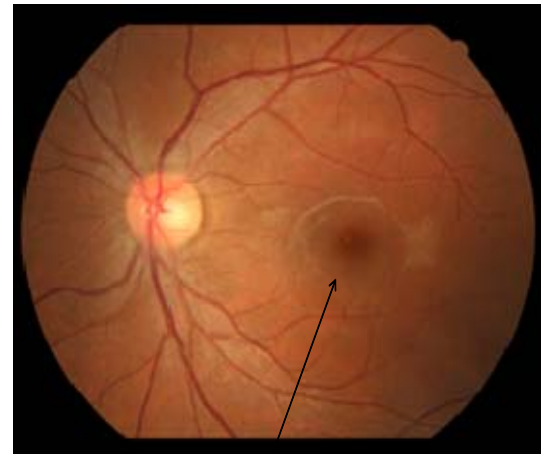
Figure 11: A normal retina with no haemorrhages or leaky blood vessels. [photo courtesy of Pak Sang Lee: International Centre for Eye Health]



**HEALTHY
MACULA:**

A normal macula:

- Is clear and flat
- Has no blood leakage (haemorrhages)
- Has no new blood vessels (neovascularisation)
- Shows no areas of discolouration (green, yellow and/or white)
- Has no holes or tears
- Might show a foveal reflex in young people



macula

Figure 12:

*The macula is located temporal to the optic disc
[photo courtesy of Pak Sang Lee: International Centre for
Eye Health]*

**NORMAL OPTIC
NERVE:**

A normal optic nerve head:

- Is round
- Is flat, not swollen or elevated
- Has no new blood vessels (neovascularisation)
- Has a cup:disc ratio (CD ratio) of no larger than 0.5
- Is pink, not pale in colour
- Has well defined edges (no swollen disc)
- No haemorrhages

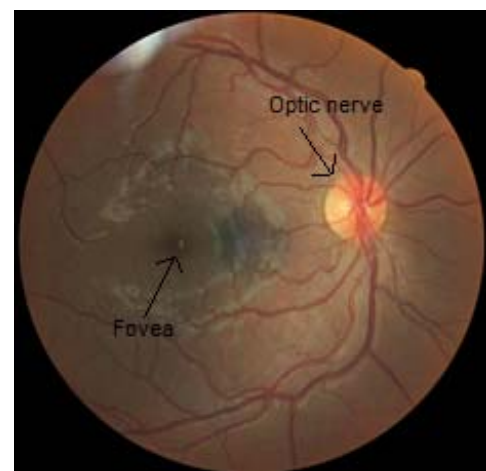


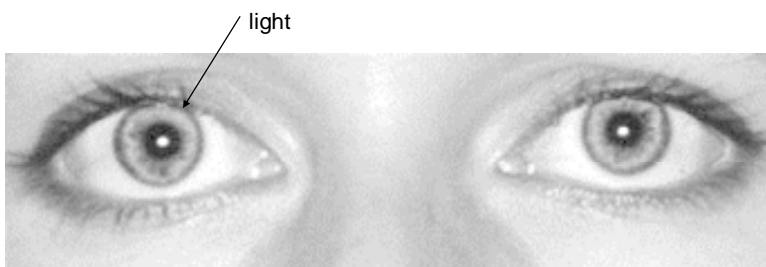
Figure 13: The optic nerve

TEST YOURSELF QUESTIONS

1. How should you examine the eyelid conjunctiva?

2. What should a healthy cornea look like?

3. You shine a light into somebody's right pupil. What should happen to the left pupil?



4. What should you be looking for when examining the macula?

5. When looking at the macula of a 10-year-old girl, you notice a bright reflex shining back at you. What is this reflex, and is it normal?

6. What does a healthy optic nerve look like?
