



# THE PROFESSIONAL ASSISTANT LEARN & ADVISE



## Eye care

Sight is arguably our most important sense. However, just because a person's vision is fine, that doesn't mean their eyes are always healthy – even minor eye conditions may cause discomfort and concern

To understand how common conditions can affect our eyes, it's important to understand the structure of the eye and how it works. Sight is actually a **series of**

**events triggered by light.** When light is reflected from an object, it passes through the pupil at the front of the eye and is focused by the lens onto the retina at the

back. Cells in the retina then **convert this information** into a signal that travels via the optic nerve to the brain. The main structures of the eye are as follows:

### Cornea

A clear membrane covering the front of the iris and pupil.

### Iris

The coloured circle surrounding the pupil. It changes the size of the pupil to allow varying amounts of light into the eye.

### Pupil

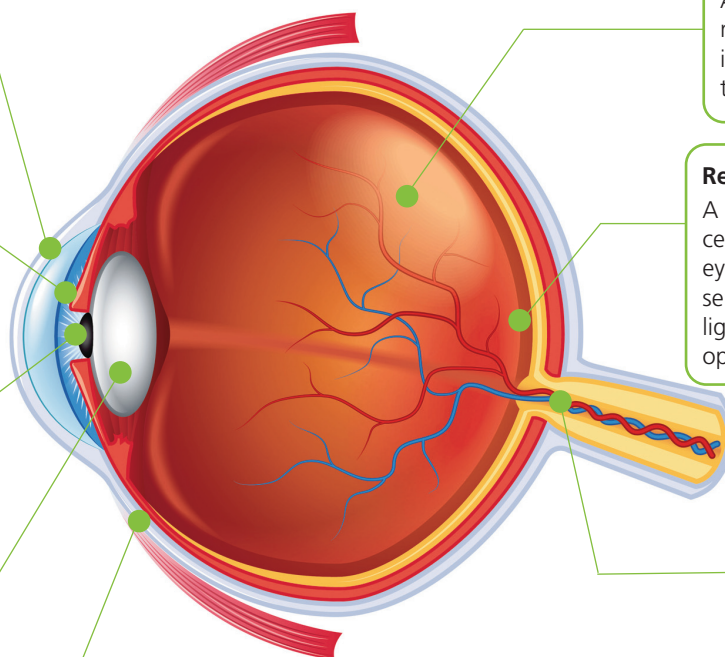
The dark, circular hole in the centre through which light enters the eye. The pupil gets larger in dim light and smaller in bright light.

### Lens

A transparent structure behind the iris that changes shape to bend light rays, focusing them onto the retina.

### Conjunctiva

The mucous membrane covering the front part of the eye and lining the inside of the eyelids.



### Vitreous humour

A colourless, gel-like material filling the inside of the eye from the lens to the retina.

### Retina

A layer of light-sensitive cells at the back of the eye that collect and send information from light signals along the optic nerve.

### Optic nerve

Takes information from the retina to the brain.



**OBJECTIVES** After studying this module, assistants will:

- Have a basic understanding of the structure of the eye
- Be familiar with common, minor conditions that affect eyes
- Know what treatment options are available to relieve these conditions.



This module is suitable for all members of the pharmacy team who wish to increase their knowledge of common conditions and their treatment options. This module has been endorsed with the NPA's Training Seal as suitable for use by pharmacy teams as part of their ongoing learning. This module can also form part of your Team Tuesday training.

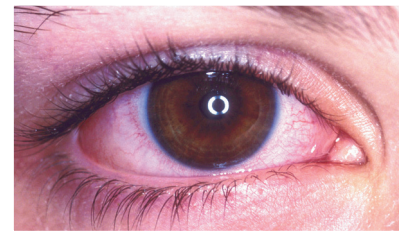


### **DID YOU KNOW?**

Contact lenses can't get lost behind the eye because the conjunctiva, which covers the white of the eye, also lines the eyelids.

## Understanding the problem

The eye conditions you'll tend to encounter in the pharmacy are most likely to be minor, such as dry eye, conjunctivitis and styes.



### Conjunctivitis

**This term applies to any condition causing redness and inflammation of the conjunctiva.**

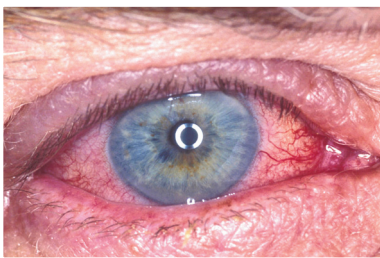
There are three common types:

- 1 Infective conjunctivitis**  
Caused by a bacterial or viral infection; can be contagious. The whites of the eyes will look pink and the eyelids may be red and swollen (see picture, right). Sufferers may also complain of a sticky, yellow coating or discharge on the eyelashes upon waking. One or both eyes may be affected.



- 2 Allergic conjunctivitis**  
Symptoms occur because of an allergic reaction to pollen, dust mites, animal dander, etc. Both eyes are usually affected. Sufferers will complain of watery, itchy eyes and there may be a stringy discharge.

- 3 Irritant conjunctivitis**  
Caused by contact with substances that irritate the conjunctiva (e.g. shampoo, chlorinated water, smoke). Eyes will look red and feel tired, sore or irritated (see picture, right). Symptoms tend to resolve once the irritant is removed.



### Dry eye syndrome

**This condition tends to occur when insufficient tears are produced or when the tears that are made don't have the correct consistency and so evaporate too quickly. It is more common in older people and in women.**

Symptoms include:

- Redness
- Stinging or a burning sensation
- Gritty, irritated feeling
- Temporary blurred vision
- Decreased tolerance for reading or working on a computer.

Possible causes include:

- Hormonal changes (e.g. menopause, pregnancy)
- Certain medicines (e.g. antihistamines, oral contraceptives)
- Wearing contact lenses
- Recent laser eye surgery
- Environmental factors (e.g. low humidity, wind, high altitude, exposure to smoke, high pollen levels)
- Prolonged reading, using a computer, etc
- Other health conditions (e.g. rheumatoid arthritis, diabetes, allergies, blepharitis).

There is no cure for dry eye syndrome, and some people may suffer from recurring episodes throughout their lives. However, OTC treatments, coupled with relevant lifestyle changes, can relieve symptoms.

### Styes and blepharitis

**Usually caused by a bacterial infection, styes appear like a pimple on the outside or inside of the eyelid.**

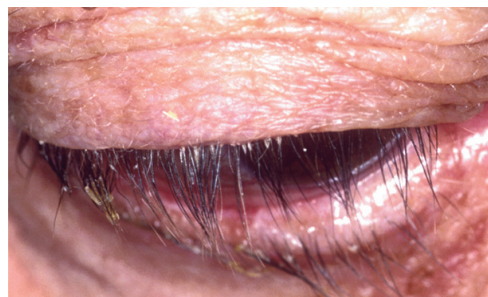
Styes are fairly common and most resolve without treatment within a few days or weeks. A warm compress may be used to encourage the styte to release pus and heal more quickly.

**In blepharitis, the rims of the eyelids become inflamed, red and swollen (see picture, right).**

Blepharitis can develop at any time, but is more likely in people over 40. It may be caused by a bacterial infection or

be a complication of another condition such as seborrhoeic dermatitis or rosacea. Symptoms include itchy, sore eyelids, crusty eyelashes and eyelids that stick together upon waking.

Blepharitis is not usually serious, but it can be a long-term, chronic condition. There is no cure, but establishing a daily eye-cleaning routine may help to control symptoms.





## Don't forget...

Tears are not simply water – they are a complex, balanced mix of chemicals that help keep eyes healthy. Every time we blink, a thin layer of tears spreads across the eye's surface. This film forms a protective coating, lubricating the eye and washing away foreign material.



## DID YOU KNOW?

One in five children have an undetected vision problem.

## Treatment options

The treatment of choice will depend on the individual's symptoms and their cause. Use the WWHAM questions and refer to your pharmacist when necessary.

Always ask if the customer wears contact lenses, as this may influence product choice, and check product labels to determine suitability. When choosing between drops and ointments, some customers may find drops easier to administer or may dislike the additional blurring of vision seen with ointments. Others may prefer the longer-lasting effects of ointments, particularly if they use the product at night.

Also, remind customers about good hygiene: wash hands before and after applying medication and don't touch the applicator tip to the eye's surface. They should also note any expiry dates and not use open products for longer than stated on the label.



### Treating dry eye

Eye drops, sometimes called 'artificial tears', are designed to relieve the discomfort and irritation of dry eye syndrome. Soothing ingredients include propylene glycol, PEG400, carbomer, hypromellose and witch hazel. Look for suitable products from OTC brands Systane, Optrex, Murine and Biotrue.

More recently, eye sprays have been introduced (e.g. Optrex Actimist). These relieve symptoms of dry, irritated, itchy eyes and can be sprayed onto closed eyes three to four times a day.

### Treating infective conjunctivitis

Bacterial infective conjunctivitis may be treated using OTC antibacterial eye drops or ointments. Active ingredients include chloramphenicol, propamidine isethionate and dibromopropamidine, and brands include Brochlor, Brolene, Golden Eye and Optrex Infected Eyes. If no improvement occurs within the specified treatment time (see individual product labels), the customer should be referred to the pharmacist.

### Treating allergic conjunctivitis

Sodium cromoglicate is a mast cell stabiliser that helps reduce the amount of histamine released when a susceptible individual encounters an allergen such as pollen. OTC brands include Opticrom Allergy, Optrex Allergy and Murine Hayfever Relief. Some products are not suitable for children under six.

### Treating irritant conjunctivitis

Eye drops containing naphazoline relieve redness by reducing the size of blood vessels in the conjunctiva. These may be useful for redness caused by temporary irritation. Brands include Murine Irritation and Redness Relief and Optrex Bloodshot Eyes.

## Added advice

These tips can help your customers take care of their eyes:

- Get plenty of sleep
- Eat a healthy, balanced diet with a variety of fruit and vegetables. Opt for oily fish twice a week for essential omega-3 fats
- Drink plenty of water and not too much alcohol
- Protect the eyes from the sun
- Stay active
- Quit smoking
- Have regular eye check-ups
  - Take regular screen breaks when working at a computer
    - Use a humidifier or a filter if air quality is affecting the eyes
    - Wear safety glasses or goggles during DIY or when playing sports, etc
    - Remove any eye make-up properly before going to bed.

## When to refer

You should refer a customer to the pharmacist if they have:

- Persistent dry eye symptoms not helped by OTC products
- Prolonged, unexplained tearing
- Conjunctivitis that persists for longer than two weeks
- Eye pain, especially if it's accompanied by redness
- Sensitivity to light or seeing halos around lights
- Sudden changes in vision
- Any eye injury
- A foreign body in the eye that can't be removed.

You should also refer infants and any customer who has diabetes.



## SIGNPOSTING

For more information, you can:

- Use your *Counter Intelligence Plus* training guide
- Visit NHS Choices: [www.nhs.uk](http://www.nhs.uk)
- Visit The Eyecare Trust: [www.eyecaretrust.org.uk](http://www.eyecaretrust.org.uk)
- Learn about events happening during National Eye Health Week, 21-27 September, 2015. Visit: [www.visionmatters.org.uk](http://www.visionmatters.org.uk)

# TEST YOURSELF ONLINE

GOOD PRACTICE KNOWLEDGE IS IMPORTANT WHEN ADVISING CUSTOMERS



## Questions

1) Which of the following statements is FALSE?

- a) Sight is actually a series of events triggered by light
- b) The lens in the eye can change shape to bend light rays and focus them on the retina
- c) The iris is a layer of light sensitive cells found at the back of the eye
- d) The conjunctiva is a mucous membrane that covers the front of the eye and also lines the inside of the eyelids

2) Which of the following are possible causes of dry eye syndrome?

- a) Hormonal changes
- b) Wearing contact lenses
- c) Being exposed to hot, dry, windy atmospheres
- d) All of the above

3) A teenager who has recently started training with the local swimming club at their indoor pool complains of conjunctivitis. Which type of conjunctivitis is it most likely to be?

- a) Infective conjunctivitis
- b) Allergic conjunctivitis
- c) Irritant conjunctivitis
- d) None of the above

4) Which product is most likely to benefit someone whose eye symptoms appear to be linked to seasonal allergies?

- a) Artificial tears
- b) Sodium cromoglicate drops
- c) Chloramphenicol ointment
- d) Eyelid wipes

5) Which of the following lifestyle tips will help customers look after their eyes?

- a) Getting plenty of sleep
- b) Protecting eyes from the sun's UV rays
- c) Quitting smoking
- d) All of the above

6) Which customer can safely self-medicate with an OTC lubricant eye drop preparation?

- a) A elderly gentleman with type 2 diabetes
- b) A toddler who has had unresolved conjunctivitis for the past week
- c) A student who finds his eyes sometimes get irritated after spending hours working on a project on the computer
- d) A middle-aged lady who reports becoming very sensitive to bright lights



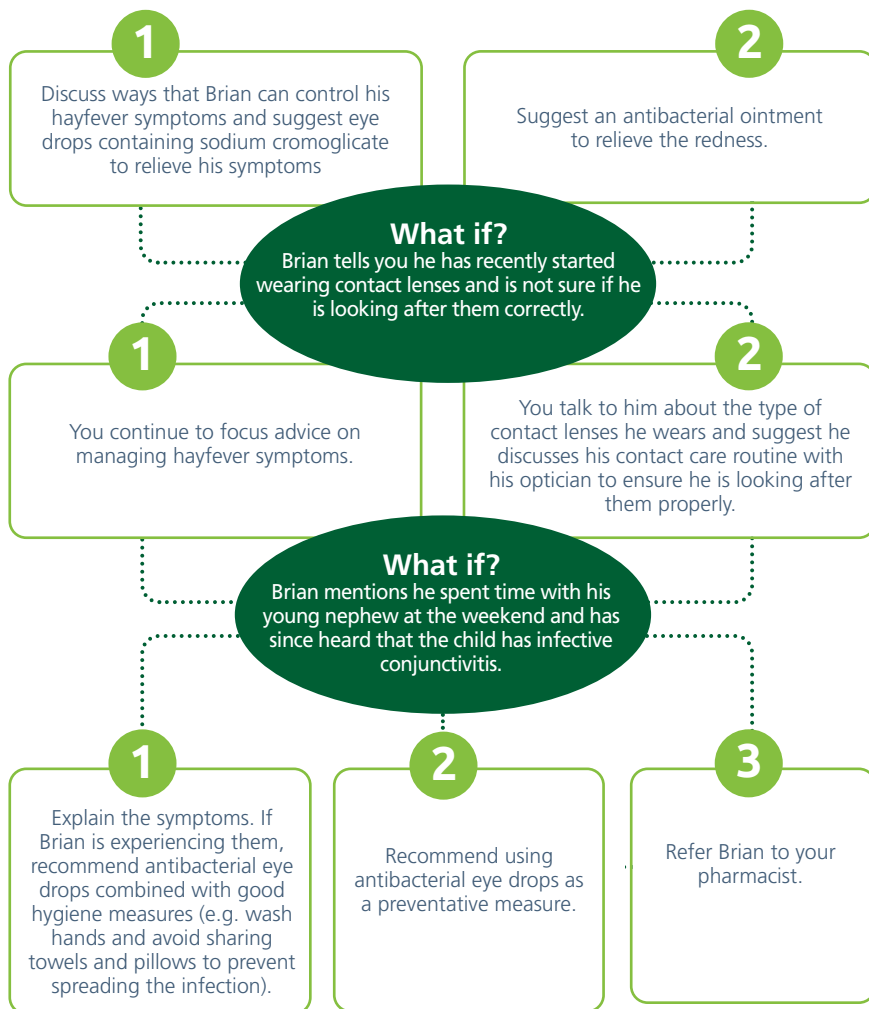
## Scenario



Brian is in his 20s and wants advice about eye drops. His eyes are feeling itchy and sore and look red. He is looking for some relief of his symptoms, but doesn't know what to try. After asking the WWHAM questions you establish that Brian suffers from hayfever and that he takes loratadine tablets when necessary.

### What would you recommend?

For each part of this scenario, think about the decision you would make and, importantly, why you would take that course of action. Think about how you would talk to your customer and provide the necessary advice. You can discuss this with your team and your pharmacist.



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