

An Herbalist's View Herbal First Aid-Eye Problems Assessment, Treatment and the Use of Eye Cups

7Song-Northeast School of Botanical Medicine
7Song.com

Overview

1. This paper is on assessment, preparations and treatment for a few commonly encountered eye problems in first aid situations. While there are treatment strategies for the three main problems focused on here, allergies and infections are discussed in more detail elsewhere as they have other considerations to be addressed.
2. **Eye irritations** are common first aid situations at outdoor events mainly from dust, airborne irritants, smoke and the occasional tree branch.
 - In this situation, the eyes are generally just irritated by the exposure, and can usually be treated on the spot.
 - While tears will usually wash away any material that may have come into contact with an eye, it is helpful to spend a little time looking. But it is also important to remember that the eyes are sensitive and even after foreign material has been washed away, there is often a sensation that something is still there.
3. **Conjunctivitis** ('pink eye') is another eye problem occasionally seen in first aid stations.
 - Conjunctivitis is an inflammation of the conjunctiva.
 - The conjunctiva is the thin transparent membrane that covers the outer surface of the eye and lines the inside of the eyelids.
 - There are various causes for conjunctivitis including; viruses, bacteria, allergies and irritations.
 - While it can be difficult to distinguish which of the above is causing the inflammation, it can also be helpful as treatment will vary between them.
4. **Eye allergies**-are commonly seen at first aid stations.
 - Eye allergies (allergic conjunctivitis) are symptoms caused by allergic responses such as hay fever and seasonal allergies.
 - Itchiness is the most common symptom. Other symptoms include; red, watery, swollen, painful and sensitive eyes.
 - An important distinction of eye allergies, is that they are neither infected nor irritated by airborne particles, but are caused by a histamine allergic response.
 - Treatment is similar to other allergies, which is trying to avoid contact with the allergen and using antihistamine-type herbs.
 - Eye allergies are generally not a major problem and may resolve on their own.

Considerations

1. Long-term damage is an important concern with any eye problem as it can affect a person's vision. If the problem appears serious or beyond your skill level, please make sure they are seen by someone skilled to assess and treat.
2. Viral and bacterial conjunctivitis are easily transmitted and it is important to make sure anything (eye cups, hands, cloth, etc) that comes into contact with a potentially infected eye is disposed of or sterilized before touching anyone else or the same person's other eye.
3. In general, whether or not there is an infection, all material that comes into contact with eyes should be sterilized or thrown away.
4. Eye pain may or may not indicate a serious problem as the eyes are sensitive organs and can feel irritated easily.
5. When looking through preparations below, it can seem that making these (i.e., an eye cup) can be an arduous task. It is not, it is just that the eyes are sensitive and there are a number of considerations due to this.
6. People often have a strong reaction to having water poured or squirted into their eyes. They frequently blink a lot and initially resist. This is common so try to use a gentle touch when employing preparations and medicines for the eyes.

When to seek help

1. If you or the patient feels there may be possible eye damage.
2. There is a worsening of vision.
3. The pain is worse than what you would expect from the incident.
4. Any concern about long-term eye health.

Differential Diagnosis

Initial Assessment

1. **Try to determine** whether it is an infection, irritation or allergic reaction.
 - This is important due to the contagious nature of infections.
 - This is also important due to the different choices of medicines and treatment strategies for each problem.
 - As the patient if their eyes often trouble them or if they have any reoccurring eye disorders or problems you should know about.
 - Ask if they are wearing contact lenses and if they have cleaned them properly.
 - Remember that eyes are sensitive and after something has gotten into them, it may feel like it is still there even after it has been washed out.
2. **Infections**-questions to consider.
 - Does anyone else who was in physical or close proximity to this person have a similar condition? Are their symptoms similar?
 - Are there any signs of infection such as fever, lethargy, sore throat, runny nose, etc?
 - Are they prone to eye infections?
3. **Allergies**-questions to consider.

- Eye allergies tend to affect both eyes similarly, while eye irritations and infections may just affect one.
 - Do this person have any type of allergies such as hay fever, allergic asthma, or food allergies?
 - Look for other signs of allergic reactions such as runny nose, general itchiness, or difficulty breathing (wheezing).
 - Itchiness is the most common symptom for eye allergies, but also swelling of the eyelids, redness and watery eyes.
4. **Irritation**-questions to consider.
- Have they recently been in a lot of dust, smoke or similar? Have they gotten hit in the face by a branch or other object?
 - Did the unpleasant sensation happen after they rubbed their eye with a hand or cloth?
 - Does it feel like they have something in their eye?
 - Are their eyes easily irritated?

Treatment

Treatment strategies

1. Depending on the cause there are 3 basic treatments.
 - **Irritation**-remove irritant and soothe eye (demulcent and soothing herbs). Herbs are applied mainly external.
 - **Allergies**-use allergy-reducing herbs (antihistamine-type herbs). Discuss prevention. Herbs are mainly internal and some external.
 - **Infection**-kill infection (antiinfective herbs). Help prevent spread of infection. Herbs are internal and external.
2. Have the person come in for at least one checkup, even after the problem is at least partially resolved. This is to make sure there are no lasting problems, and to see if further treatments are necessary.

Preparations

1. **Eye cups**-for holding a medicinal liquid against the eye-see below
2. **Eye compresses**-This is when a cloth or gauze is dampened with a solution (fluid plus medicine) and placed over the eye.
 - An advantage is that they tend to feel more soothing.
 - They can easily be thrown out.
 - A disadvantage is that it is not easy to open the eye with a cloth on it, so the water is not bathed on the eyeball in the same as with other methods.
3. **Eye washes**-This is when water is poured on the eye, whether with a squirt bottle or just poured from a container
 - The advantage is that it is easy to do, as long as there is a clean bottle and clean water.
 - This only works for removing something from the eye, as the fluid has very little time to rest on the eye to bring in medicine.

- A disadvantage is that people tend to react strongly to having water poured into their eye. Help them relax and use a gentle touch.
 - It can be messy with the water running down their clothes and body.
4. **Eye drops**-are a liquid preparation placed in the eye with a dropper
- Advantage is that they can be placed more precisely and carefully
 - Not nearly as messy as eye washes or eye cups
 - Medicine can be measured and administered more exactly
 - Easy for the patient to administer for themselves.
 - The major disadvantage is just that it takes more time and may be too small or subtle an amount of liquid and medicine.

Eye cups-how, why and when to use

1. Eye cups are very useful to keep fluids resting on the eye, as with herbal medicines in a solution.
2. They are not used if you are trying to wash something out of the eye that needs some force (as with a squirt bottle), or if you have been sprayed with a noxious ingredient, such as pepper spray.
3. Many people do not like the feel of something on/in their eye, and it is beneficial to show them how to use an eye cup and why it is helpful for them.
4. Eye cup preparation (see separate details for each aspect).
 - Use a clean eye cup each time.
 - Fill the eye cup about ½ way with solution (which may be a tea).
 - Add tinctures or powders in now, stir in if necessary.
 - The patient leans forward and puts the eye cup securely against their eye.
 - The patient now tilts their head back with the eye cup in place.
 - It is helpful for them to hold a paper towel under their eye as some fluid often escapes and dribbles down.
 - With their head tilted back, they now open their eye and move it around so the fluid is spread all over it.
 - They do this for about 20-30 seconds.
 - Then they tilt their head forward and take the eye cup away. This way there is minimal spilling.
 - Repeat as necessary giving a little time in between eye cup usage.
5. The **fluid** in the eye cup is an important consideration; a saline or eye wash solution is best, as they are more similar to tears. If you are using plain water, distilled water is best as there are no extra chemicals (as with tap water). Just try to be sure the water is clean of bacteria and particulate matter (stuff).
6. If you are using a reusable eye cup, it needs to be sterilized after each use.
7. **Sterilizing** the eye cup.
 - If it is glass or a strong plastic, it can be boiled at a hard boil for 2 minutes in water.
 - Povidone iodine can be used to sterilize it though this will need to be cleaned out as well.

- Isopropyl alcohol can be used to clean it out then and have any remnants evaporate.
 - You can use clean towels to soak up any extra cleaning fluids you do not want in it.
 - After cleaning, keep it wrapped (such as plastic wrap) and kept in a clean place to be used again.
 - If in doubt of its cleanliness between uses, disinfect again.
8. Make sure there is no particulate matter at all in the eye cup solution (unless you are using a powder). This is important to watch for if the solution is a tea.

Applications-and how to prepare them

1. Compresses

- These are cloth or gauze moistened with a fluid to rest on the eye.
- Do not make too wet, a little moister than moist.
- They are useful for irritated, inflamed or infected eyes.
- They can be moistened with tea or with dilute tincture(s).
- If there is an infection, use a clean or new one each time, including from eye to eye on the same person.

2. Eye cups

- See above description

3. Powders

- Powders are used for irritated eyes or to help remove something from the eye.
- This is the exception to not having any particulate matter in the eye cup.
- Powders are primarily used in eye cups.
- Slippery elm is a useful powdered herb.
- Fill the eye cup about half full of saline or another solution.
- Add a very small amount of powder in the eye cup and vigorously stir until it is dissolved in the liquid.
- The consistency should be slightly thicker than water.
- Use a clean stirrer, such as tweezers that have been heated and sterilized.
- Apply as with eye cup instructions above

4. Teas

- Tea preparations are useful for infections, irritations or allergies.
- These need to be strained very well, and then potentially strained again.
- Teas can be put in an eye cup, compress, eye drops, or eyewash.
- Teas are unstable and will go bad over time, especially if not refrigerated.

5. Tinctures

- Tinctures are helpful internally and externally.
- Tinctures are useful internally for eye problems for allergies, infections and pain.
- Tinctures are based in ethanol (drinking alcohol) and will burn the eye if placed directly in or too much is used at once.
- Dilute the tincture before applying topically to the eye.
- In an eye cup, add 2 drops of tincture per eye cup wash.

- For a compress, put the tincture in the solution before moistening the cloth or bandage, this way it is more evenly dispersed. The amount you use will be affected by how much of the solution you have. Try to keep it to a few drops per compress.

Treatment Categories-see above notes on how to apply these

Note-Below are just a few herbs from each category, consider other herbs that you know and use.

1. Antiinfective

- These are herbs used for conjunctivitis that is bacterial or viral.
- These herbs should be used internally and externally.
- Consider Hydrastis for external applications.

2. Antihistamine-type

- These herbs are for eye problems associated with allergies.
- These herbs should be used internally and externally.
- Euphrasia tincture is a helpful external application.

3. Astringents

- These are applied externally for eyes that have been scratched by a branch or other object.
- Use them in weak solutions, either as teas or tinctures.

4. Demulcent and Soothing

- These are for eye irritations to help relieve the pain.
- They are applied externally, either in eye cups or compresses.
- Teas are more soothing than tinctures, but either may be helpful.

Antiinfective

- Achillea
- Berberis
- Hydrastis

Antihistamine-type

- Ambrosia
- Euphrasia

Astringent

- Quercus
- Hamamelis

Demulcent and Soothing

- Foeniculum
- Solidago
- Ulmus powder
- Matricaria
- Stellaria

Non-herbal Supplies

1. Eye cup
2. Eye dropper
3. Gauze or cloth
4. Saline solution
5. Sterilizing equipment
6. Stirrers

Plant List (spp means a number of species can be used)

Barberry -Berberis thunbergii	Goldenseal -Hydrastis canadensis
Calendula -Calendula officinalis	Oak -Quercus spp.
Chamomile -Matricaria recutita	Oregon graperoot -Berberis spp.
Chickweed -Stellaria media	Ragweed -Ambrosia artemisiifolia
Eyebright -Euphrasia spp.	Slippery elm -Ulmus rubra
Fennel -Foeniculum vulgare	Witch hazel -Hamamelis virginiana
Goldenrod -Solidago/Euthamia spp.	Yarrow -Achillea millefolium

Summary/Conclusion

1. Eye problems can be common at outdoor events and other first aid stations.
2. They generally fall under the categories of irritation, infection and allergies.
3. Each of these may have different treatment strategies and associated herbal medicines.
4. Be attentive of any potential long-term damage to vision.
5. Anything that looks serious or beyond your capabilities should be seen by someone with more expertise.
6. Have equipment and herbs on hand.
7. A number of eye problems can be resolved on location and may not need further medical attention.
8. If there is an infection, practice sanitation and use herbs to treat infection.
9. If allergic use antihistamine-type herbs.
10. If there is irritation, use soothing and demulcent herbs.