

# First Aid for Common Hiking Ailments and Injuries

Information Session March 2009 – This information was prepared by a medical doctor for education purposes and should not take place of a medical exam or advice from a medical practitioner if needed.

## 1. Sunburn

### *Prevention*

- avoid UV exposure between 10:00 and 16:00
- wide brimmed hat and sunglasses
- dark tightly woven clothing, long sleeves and long pants – more outdoor clothing now available with UV protection
- sunscreen – chemical or organic
  - chemical – mostly absorb UVB rays (that cause pink, sore skin), less so UVA rays that over time cause wrinkles (photoaging) – both cause skin damage and increase risk of skin cancer
  - water resistant last longer when sweating
    - UltraSheer™ (Neutrogena) and Age Shield™ (Johnson & Johnson) found to have most stable UVA protection in study in 2000
  - organic – reflect UV rays using zinc, talc and other compounds, tend to be thicker, sticky, stain clothing and cause pimples
    - Dometrizole trisiloxane (Mexoryl XL™) provides organic UVA protection in sunscreens sold under different brands including Anthelios™, Ombrelle™, Vichy™ and Biotherm™ (L'Oréal).
  - use at least SPF 15 and reapply 15-30 min before sun exposure and again 20 min into your outdoor activity, then every 2-4 hours
- anti-oxidants such as vitamins A, C, D and green tea derivatives provide some protection against sunburn but not sufficient alone, orally or topically

### *Treatment/Rx*

- Get out of the sun!
- Pain relief – NOT proven to speed healing:
  - cool compresses or soaks in cool water
  - moisturizing creams/aloe vera, 0.5 % hydrocortisone cream
  - anti-inflammatories (ibuprofen, ASA, diclofenac gel)
  - pain killers (acetaminophen/Tylenol)
  - anti-histamines (Benadryl) may also decrease pain and cause drowsiness/help sleep

## 2. Blisters

### *Prevention*

- make sure boots fit well, not too tight in the heel, break them in
- ensure no seams rubbing inside boots or socks
- keep feet as dry as possible – change socks if get wet and use foot powder to keep feet dry, dust inside of extra socks with talc (Gold Bond™ or Dr Scholls™) and keep in plastic bag in fanny pack for ease of changing
- wear good socks, silk, wool and synthetics that wick away moisture and provide some cushioning
- 2 pair of socks or liner?
- if “hot spot” developing: try moleskin, blister plaster or create donut around impending blister with Molefoam™ or make-up sponge
- Bandaid Blister Block™ and Body Glide™ or other lubricants recommended by ultramarathoners and long-distance walkers
- preventative taping:  
<http://www.sportsinjuryclinic.net/cybertherapist/front/foot/blisters/taping.php>

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## 2. Blisters Continued

### Rx

- let fluid out of blister by poking small hole in side of blister with sterile blade or needle that has been sterilized by passing it through a flame and allowed to cool
- cover with blister plaster such as Spenco Second Skin™ or Bandaid Advanced Healing Blister™ pads or create donut around blister with Molefoam

## 3. Chafing

Often occurs on the inner thigh, groin area, armpits, nipples, etc. as a result of sweating, and friction

### Prevention/Treatment

- Select snug fitting (but not tight) clothing with few seams/flat seams, in breathable, wicking fabrics. No cotton!
- Do not wear untested clothing on a long walk and never wear unwashed new clothing.
- Dry or Wet??
  - Keep chafing prone regions dry with talc
  - Lubricant: petroleum jelly, Udder Balm/Bag Balm or sports/running products like Runners Lube™, Sportslick™, Body Glide™, and Sports Shield™

## 4. Scrapes/Cuts

### Rx

Scrapes and shallow cuts

- Wash with mild soap and water – disinfectants, rubbing alcohol and peroxide can slow down healing
- Antibiotic ointment e.g. Polysporin
- Apply dressing/bandage to keep dirt out
- Spray on bandage

Deeper lacerations

- Wash with mild soap and lots of H<sub>2</sub>O
- Apply pressure/elevate to decrease bleeding
- Pull together edges of wound – butterfly bandages, steristrips, tape, Crazy Glue
- Have you had your tetanus booster?? – last regular immunization at 14 yrs in school, need booster every 10 yrs, e.g. age 24, 34, 44, etc

## 5. Hypothermia

A serious danger, even on a dayhike. Defined as cooling of internal body (core) temperature to 35 C (normal is 38.6 C). Can develop over a few hours.

### Prevention

- Dress for the weather *and prepare for a possible change in the weather* – always have a hat, windproof (and ideally breathable fabric) outer layer, extra layer(s), and raingear in pack
- Eat well before and during the hike
- Wear wicking layer next to skin to prevent excessive cooling when exertion stops
- Wear clothes in layers that trap warm air
- If sudden fall into cold water and at risk for sudden hypothermia, get out of wet clothes immediately, change into dry clothes, hat, give high energy food and warm drinks, and get moving if person is coherent and able

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## 5. Hypothermia Continued

### *Recognition of hypothermia*

- Change in behaviour – talking less, moving more slowly, stumbling, irritable, not able to think clearly
- Skin cool to touch, complains of cold, shivering
- If intense shivering stops without treatment - a bad sign

### **Treatment**

#### *Mild hypothermia:* Coherent, complains of cold

- Extra clothing, hat, warm drink, high energy food, get out of wind/rain until able to safely move on
- Get back to vehicle or shelter asap

#### *More severe:* Confused, shivering uncontrollably or was shivering and now has stopped

- Extra clothing, hat, warm drink, high energy food, get out of wind/rain
- Get into survival bag/sleeping bag or surround with space blanket with another body for passive warming
- At least 2 people to stay with victim, send for help
- Don't apply heat directly to body – draws blood away from core and vital organs

## 6. What should I have in my personal first aid kit?

What to have in kit depends upon:

- type of hiking (mountain, dessert, tropical, high-altitude, day hiking or backpacking)
- duration of trip
- backcountry/wilderness or close to roads and help
- personal health concerns
- level of training to use contents of kit
- how much weight/volume do you want to carry?

Make your own or buy ready-made kit?

- expense and time
- difficulty in finding and replacing used items

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## Suggestions for a Personal Day-Hiking First Aid Kit

All of the items below should fit into a small waterproof plastic container, coffee tin with tight lid or large ziplock bag. Include a card or label the container and your pack with your name, address, phone number and health care number and emergency contact info.

<p><b>Bandages – cuts, scrapes, strains and sprains</b></p> <ul style="list-style-type: none"> <li>• 2 rolls 1" roller gauze</li> <li>• 1 roll hypo-allergenic adhesive tape</li> <li>• 12 regular and 6 small non-latex bandaids</li> <li>• 1 medium sized tensor bandage</li> <li>• 2 triangular bandages</li> <li>• 4 non-stick telfa pads (2x2" or 3x3")</li> <li>• butterfly bandages or steristrips</li> <li>• cotton balls</li> <li>• handy wipes (individual packages)</li> <li>• alcohol wipes (individual packages)</li> <li>• 2 pairs non-latex disposable gloves</li> <li>• 1 small container with liquid soap (labeled)</li> </ul>	<p><b>Drugs</b></p> <ul style="list-style-type: none"> <li>• Personal medications – 2-3 days supply</li> <li>• Antacid (Tums)</li> <li>• Antibiotic cream (Polysporin, Bactroban) – cuts, burns</li> <li>• Antihistamine (Benadryl.) - allergic reactions</li> <li>• Pain killer/anti-inflammatory: Aspirin/Ibuprofen/Tylenol/Naproxen</li> <li>• Hydrocortisone cream (soothes allergic or sunburned skin)</li> </ul>
<p><b>Blister Stuff</b></p> <ul style="list-style-type: none"> <li>• 1 pkg moleskin/molefoam</li> <li>• Second Skin</li> <li>• 1 small pair scissors/Swiss Army knife with scissors</li> <li>• 2 needles or blades</li> <li>• make-up sponges</li> </ul>	<p><b>Survival Stuff</b></p> <ul style="list-style-type: none"> <li>• 2 packages of sugar in sealed plastic bag</li> <li>• 2 packages of salt in sealed plastic bag</li> <li>• 1 solar blanket (folded)</li> <li>• waterproof matches</li> <li>• candle</li> <li>• fire starter</li> <li>• whistle</li> <li>• mirror, small and unbreakable</li> </ul>
<p><b>Other Stuff</b></p> <ul style="list-style-type: none"> <li>• 4 small and 4 large safety pins</li> <li>• tweezers</li> <li>• hand sanitizer</li> <li>• pencil/pen and paper</li> <li>• coins for emergency phone calls</li> <li>• 1 medium Ziploc bag (to store used bandages, etc)</li> <li>• duct tape</li> <li>• 2 sanitary napkins</li> <li>• small bottle of calamine lotion or cream (labelled)</li> <li>• eye drops</li> <li>• pocket emergency first aid booklet</li> </ul>	<p><b>Extras</b></p> <ul style="list-style-type: none"> <li>• 1 CPR mouthpiece/mouth shield for breathing emergencies</li> <li>• chemical heat and cold packs</li> <li>• water purification tabs</li> <li>• irrigating syringe</li> <li>• allergy kit (Epi-Pen, Anakit)</li> <li>• stronger pain killers - codeine</li> <li>• splinting materials</li> <li>• Crazy Glue</li> <li>• nitroglycerine spray</li> <li>• Ventolin puffer</li> </ul>