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Summer First Aid Kit

- Acetaminophen, Ibuprofen
- Calamine® lotion & Benadryl®
- Sun Screen, Insect Repellent
- Band-aids®
- Neosporin® or Bacitracin®

Summertime Safety for Skin

Sun protection is crucial

It is generally acknowledged that long-term exposure to sun has a *cumulative harmful effect on skin*. We know that exposure to ultraviolet radiation in childhood, especially early childhood, increases the risk of developing skin cancer later in life. Since most of our lifetime exposure to sun occurs *before the age of 18 years*, it is particularly important to teach our children good sun hygiene.

The use of long sleeves and pants, a hat with a wide brim, sunglasses, avoidance of direct sun between 10:00 am and 4:00 pm, and application of sunscreen are good strategies. When choosing a sunscreen, look for the words "broad-spectrum" on the label—it means that the

sunscreen will screen out both ultraviolet B (UVB) and ultraviolet A (UVA) rays. The sun protection factor (SPF) should be at least 15. (Higher SPF values have been known to cause hypersensitivity reactions and rashes; they are acceptable so long as they do not cause a rash.) Apply sunscreen 30 minutes before going outdoors. Sunscreens that are "waterproof" may still need re-application, especially if your child is playing in the water. Zinc oxide, a very effective sunblock, can be used as extra protection on the nose, cheeks, tops of the ears, and on the shoulders. Lip balm sunscreen can be used on lips and above eyebrows: it is less likely to run into eyes.

Infants less than 6 months of age should be kept out of direct sunlight. The American Academy of Pediatrics recommends using sunscreen on small areas of the body, such as the face and backs of hands, of infants younger than 6 months of age, *but only when the skin cannot be adequately protected with clothing or shade*.

Mosquitoes (and other insects)

Mosquito and other insect bites typically are not serious. Most commonly, they itch. Occasionally they become infected when they are scratched, or in the case of some stings, cause an allergic reaction. There are many insect repellants available for use against mosquitoes, no-see-ums, black flies, and ticks (see below); unfortunately none of them are effective against venomous stinging insects.

To relieve the itchiness that accompanies bites by mosquitoes, flies, and fleas, apply Calamine lotion freely onto any part of your child's body except the areas around her or his eyes. If superficial abrasions result from scratching bites, apply topical triple antibiotic ointment (e.g. Bacitracin® or Neosporin®) to prevent infection.

Some individuals can manifest an allergic reaction after being stung by a bee, hornet, yellow jacket, or wasp. Stingers of bees should be removed quickly, minimizing the amount of venom exposure. Use the blunt side of a knife to gently push away the stinger and the attached venom sac, or pull it out with a pair of tweezers (taking care to avoid injecting more venom into the wound). If your child is stung, soak a cloth in cold water or use an ice pack to reduce pain and swelling. Acetaminophen or ibuprofen can relieve the discomfort after a sting. We should be notified immediately of more serious reactions, such as wheezing, nausea, vomiting, or severe swelling.

Note that bug bites in infants and small children can cause impressive swelling and redness, far more than may be seen in adults. Using an insect repellent (see box below) is the best way to prevent this. Swelling that is *painful* to the touch may indicate infection and should be evaluated by us.

Finally, Benadryl® (diphenhydramine) is an antihistamine that can provide relief from severe itching. The appropriate child's dose is *up to* ½ teaspoon (6.25 mg) for every 11 pounds, given every 6 hours as needed. Do not exceed 50 mg/dose. Benadryl® is often sedating, but in some individuals (particularly infants) it can be stimulating, causing restlessness and irritability. Lower doses are acceptable.

Insect Repellants

- It is generally acknowledged that the most effective ingredient in insect repellants is DEET (N,N-diethyl-meta-toluamide). It has been in use for more than half a century, and has a remarkably impressive safety record. DEET can be harmful if ingested or used incorrectly. Higher concentrations of DEET increase the effectiveness of the repellent. A concentration of 50% may provide 95% protection for four hours.
- The CDC recommends using products that have been shown to work in scientific trials and that contain active ingredients which have been registered with the US Environmental Protection Agency (EPA) for use as insect repellants on skin or clothing. Of the active ingredients registered with the EPA, the CDC believes that two have demonstrated a higher degree of efficacy in the peer reviewed, scientific literature. Products containing these active ingredients typically provide long-lasting protection than others: DEET (N,N-diethyl-m-toluamide) and Picaridin (KBR 3023).
- The CDC notes that definitive studies do not exist about what concentration of DEET is safe for children. No serious illness has been linked to the use of DEET in children when used according to manufacturer's recommendations.
- Cream or lotions may be safer for children than aerosol sprays.
- Use a DEET-containing repellent only on exposed skin, (not on skin underneath clothing). *Clothing and hats* can be sprayed with repellent, although it may not be recommended for use on some synthetic materials. Avoid applying it to broken skin, or to hands that may end up in the eyes or mouth. Take care not to breathe the mist if the repellent is sprayed. When indoors, wash off repellent with soap and water.
- Non DEET-containing products (such as Avon Skin-So-Soft®) may be safer, but were found to be less effective by *Consumer Reports, June 2000*. (Some children may respond better than others.) They typically do not claim effectiveness against ticks.

Ticks

Tick bites are generally harmless (causing only local reactions), although they can transmit disease. Deer ticks are very small (smaller than a sesame seed) and in some areas can transmit Lyme Disease, whereas dog ticks are larger and do not transmit Lyme Disease. Nevertheless, the best defense against disease from ticks is a good offense. Wear long pants tucked into socks and long sleeves when in wooded areas or in tall grasses. Avoid tall grass by sticking to the center of trails. Carefully inspect your children for ticks at the end of each day in the spring, summer, and fall.

If you find a tick, don't panic: ticks must be attached for 36 to 48 hours or more before they

can transmit disease, and a tick can spend hours on a body without even biting. To remove a tick, grasp it close to its mouth (close to the skin) with a pair of tweezers and *gently apply steady pressure* away from the skin to remove all of the parts. If parts are left in the skin, they should be removed if possible, although they often will fall out on their own if very small. If you are in doubt about the tick, save it for us to examine. *Antibiotics are generally not recommended for tick bites.* We should be notified if an expanding rash develops at the site of the tick bite, or your child develops other symptoms.

Poison Ivy

Poison Ivy is a shiny three-leaved green plant. The plant produces a substance that causes an allergic reaction in the skin of susceptible individuals, *even during times of the year when there are no leaves.* The rash is usually red, with swelling, and often blisters. It can be intensely itchy, and if scratched excessively, can become infected.

Avoidance of exposure is clearly the best prevention. Once exposed, however, the best approach is to wash the skin as soon as possible, and launder clothing, shoes and laces, to remove the offending resins. Pet dogs or cats, on the other hand, can maintain resins on their fur and may require shampooing. Once the skin has been washed, the rash *does not spread*, even with scratching. The average time for the rash to erupt is 48 hours. The rash can persist for one to three weeks.

The skin reaction *develops* like a Polaroid picture. That is, the resin on the plant causes an *emerging* allergic reaction in one's skin. The rash develops first in areas exposed to the most resin, and patches develop later in areas that are less exposed. Finally, note that *the fluid in the blisters is not contagious.*

Therapy for poison ivy is typically aimed at controlling the symptoms of itch and swelling.

- Calamine lotion is helpful in treating the itch.
- Antihistamines, such as Benadryl® (diphenhydramine) can provide relief from severe itching. The appropriate child's dose is up to ½ teaspoon (6.25 mg) for every 11 pounds, given every 6 hours as needed. Do not exceed 50 mg/dose. Lower doses are often helpful and cause less sedation. Topical antihistamines should be avoided. Topical steroids are occasionally used, but they have limited benefit.
- When there is significant swelling, particularly on the face or groin, or there is extensive involvement, we may prescribe oral prednisone. Please arrange to have your child seen in the office if the reaction to poison ivy is severe or you are concerned about infection.