

# Dangerous Insects and Plants of Arizona

## Venomous Species

- Spiders – Notable species are the Black Widow and Arizona Brown Spider
- Scorpions – Notable species is the Bark Scorpion
- Fuzzy Caterpillars – Notable species is the Pus Caterpillar
- Centipedes
- Wasps
- Velvet Ants
- Bees – Notable species is the “Africanized” hybrids
- Ants

## Poisonous Species

- Blister Beetles – cantharidin

## Blood Suckers

- Mosquitos
- Kissing Bugs
- Ticks
- Fleas
- Mites

## Treating Venomous Bites and Stings

Treating bites and stings of venomous insects involves neutralizing the venom, reducing inflammation, addressing pain, and preventing possible infection. The following protocol should be followed for all bites and stings in the first 24 hours.

Neutralizing the Venom

- Immediately dress the area with a drawing or venom salve. Rub gently to work into the skin; do not push as the venom will be pushed further into the wound. Rub for less than one minute. If a drawing or venom salve isn't available, the following will also neutralize the venom to some degree;
  - Apple cider or white vinegar – apply with a cotton ball
  - Baking soda – mix baking soda with just enough water to form a paste
  - Activated charcoal – just mix with enough water to form a paste

#### Reducing Inflammation and pain

- Crownbeard poultice
- Ice
- NSAID

If infection is a concern, dress the bite or sting with raw honey. Honey will also assist somewhat with inflammation.

#### **Treating Poisonous Insect Exposure**

Treating exposure to a poisonous chemical from an insect involves removing the substance from the skin, neutralizing the chemical and if necessary treating any resulting wound.

- Immediately wash the area with cool running water. If there is no blister present, wash with mild dish soap.
- If tingling or burning is present but blisters have not formed, apply black drawing salve
- If blisters have formed, treat like a chemical burn
  - Apply prickly pear pulp to reduce fluid and inflammation
  - If blisters have ruptured, apply prickly pear/honey mixture
  - Once weeping stops, cover with prickly poppy salve

#### **Treating Bites from Blood Suckers**

Treating bites from mosquitos and kissing bugs does not involve the removal or neutralization of chemicals. The swelling and itch associated with these bites is an immune response produced by your body to the proteins that are in the saliva of these insects. Treatment therefore

involves blocking or reducing inflammation mediators. Itching brings more inflammatory mediators and invites infection so DON'T SCRATCH!

- Apply any of the following individually.
  - Witch Hazel, either distilled or dried herb prepared as a poultice
  - Apple Cider Vinegar
  - Lemon Juice
  - Fresh plant poultice of filaree
  - Black Tea
  - Crushed aspirin mixed with enough water to form a paste
  - Slice of onion
  - Ice
  - Salt mixed with enough water to form a paste

### **Mosquito Borne Diseases in Arizona**

**West Nile Virus.** This disease is caused by a virus. Approximately 20 percent of infected people will have "flu-like" symptoms such as fever, headache, body aches, swollen glands and muscle weakness. Symptoms generally occur 3 to 15 days following the bite of an infected mosquito. Symptoms can last for days or weeks.

In rare cases, West Nile virus can cause more serious conditions such as encephalitis (an inflammation of the brain) and/or meningitis (an inflammation of the linings of the brain and spinal cord). Signs and symptoms might include high fever, headache, stiff neck, confusion, disorientation, seizures, muscle weakness, coma, and paralysis. Of the most serious encephalitis cases, approximately 3-15% may be fatal.

**St. Louis Encephalitis.** This disease is caused by a virus and is very rare.

### **Kissing Bug Borne Diseases in Arizona**

**Chagas.** This disease is caused by the parasite *Trypanosoma cruzi*. An infectious, inflammatory disease, Chagas can cause congestive heart failure if left untreated.

### **Tick Borne Diseases in Arizona**

**Rocky Mountain Spotted Fever.** This disease is caused by a bacterium *Rickettsia rickettsii*. Symptoms are fever, chills, muscle ache, and headache. A spotted rash often develops 2 to 5 days later. Early treatment for RMSF is effective. If a tick bite is suspected it should be mentioned to the doctor so the disease can be diagnosed quickly and treated with the appropriate antibiotic.

***Rickettsia parkeri rickettsiosis.*** Symptoms of the disease include fever, headache, joint and muscle pain, rash, and a dark scab at the site of the tick bite. This disease is rare and very similar to Rocky Mountain Spotted Fever. Treatable with antibiotics.

#### **Tick-Borne Relapsing Fever**

Caused by one of several *Borrelia* sp., treatable with antibiotics. This disease is very rare in Arizona, encountered only in rustic cabins and around wood piles. A night-feeding tick from the genus *Ornithodorus* is responsible. Bites can occur unnoticed because feeding only lasts from 15 to 30 minutes and is painless. Symptoms occur 2 to 18 days after the bite and can include high fever, muscle and joint pain, chills, drenching sweat and headache.

### **Flea Borne Diseases in Arizona**

**Bubonic Plague.** This disease is caused by the bacteria *Yersinia pestis* that are spread through flea bites. Symptoms include fever of 104 degrees or higher, aches and pains, chills, swollen and painful lymph nodes, weakness and fatigue. According to Medicine Net, antibiotics that can be used are ciprofloxacin, streptomycin, gentamicin and doxycycline.

### **Poison Ivy, Oak, Sumac**

- Urushiol

If contact is noticed within 10 minutes, alcohol wipes can remove some of the urushiol from the skin. Follow the alcohol wipes immediately with a rinse of clean water.

Once a rash has formed;

- Prickly Pear pulp/honey mixture - apply when blisters are large and angry.
- Witch Hazel - apply to dry the area and reduce inflammation/itching.
- Oatmeal – apply to sooth itching and inflammation.

- Salt – use a bath or wash before bed to sooth itching and inflammation for the night.

## **Black Drawing Salve – Base Recipe**

### **Ingredients:**

- 1 T Charcoal
- 1 T Bentonite clay
- ½ cup Carrier oil
- 2 tsp Beeswax
- 25 drops Lavender essential oil

### Carrier oil suggestions:

- Olive Oil - Best
- Coconut Oil – Best
- Grapeseed - Good
- Almond - Good
- Peanut - Good
- Safflower – not recommended
- Sunflower – not recommended