

Bites, Stings & Venomous Things

**Venomous critter identification, sting symptoms
and wound first aid for Arkansas, Louisiana,
New Mexico, Oklahoma & Texas**



The Southwest Center for Agricultural Health, Injury Prevention and Education

Table of Contents

Tips for venomous critter identification,
sting symptoms and wound first aid

First Aid Kit

Glossary

Bees

Caterpillars

Insects

Millipedes & Centipedes

Scorpions

Snakes

Spiders

Mosquito-Borne Diseases

Tick-Borne Diseases

First Aid Kit

The following are recommended items for a first aid kit; modify to suit your particular needs. When in doubt, always seek advice from a licensed healthcare professional.

- Adhesive Tape (non-allergenic)
- Antiseptic Ointment
- Band-Aids (assorted sizes)
- Benadryl®
- Blanket
- Cold Pack
- Disposable Gloves
- Epi-Pen® www.epipen.com
- Gauze Pads & Roller Gauze (assorted sizes)
- Hand Cleaner
- Plastic Bags
- Safety Pins
- Scissors & Tweezers
- Small Flashlight & Extra Batteries
- Topical Cream containing: antihistamines, menthol, corticosteroids, or benzocaine (e.g. Sting Kill®)
- Triangular Bandage



All agents should be used according to the manufacturer's use and dosing recommendations.

Glossary

Anaphylactic Shock- Severe and sometimes fatal systemic reaction upon a second exposure to a specific antigen (as wasp venom or penicillin) after previous episode characterized by respiratory symptoms, fainting, itching and hives.

Antihistamine- Medicines that oppose the actions of histamine and are used especially for treating allergic reactions, cold symptoms and motion sickness.

Analgesic- A drug or medication given to reduce pain without resulting in loss of consciousness.

Benzocaine- Local anesthetic.

Corticosteroids- Any of the steroid hormones made by the outer layer of the adrenal gland; e.g. Cortisol.





Envenomation- The injection of a poisonous material by sting, spine, bite or other similar means.

Neurotoxic- Toxic to the nerves or nervous tissue.



Systemic Reaction- Affecting the body generally; dizziness, fainting, difficulty breathing, swollen lymph nodes.

Tourniquet- A device, typically a tightly encircling bandage, used to check bleeding by temporarily stopping the flow of blood through a large artery in a limb.

Bees

	SYMPTOMS	FIRST AID
 <p>Bumble Bees</p>	<ul style="list-style-type: none"> -Multiple stings -Painful sting 	<ul style="list-style-type: none"> -Apply topical cream containing antihistamines, corticosteroids, benzocaine or menthol -Or, apply baking soda paste
 <p>Carpenter Bees</p>	<ul style="list-style-type: none"> -Multiple stings -Painful sting 	
 <p>Leafcutter Bees</p>	<ul style="list-style-type: none"> -Not aggressive -Sting only when handled -Minor sting 	
 <p>Sweat Bees</p>	<ul style="list-style-type: none"> -Attracted to sweat -Sting only when touched/disturbed -Minor sting 	

Bees

	SYMPTOMS	FIRST AID
 <p>Honeybees</p>	<ul style="list-style-type: none"> -Single sting -Tissue swelling -Burning pain 	<ul style="list-style-type: none"> -Remove stinger -Wash wound -Apply topical cream containing antihistamines, corticosteroids, benzocaine or menthol
 <p>Africanized Honeybees "Killer Bees"</p>	<ul style="list-style-type: none"> -Single sting -Tissue swelling -Burning pain <p>"Killer Bee" Facts</p> <ul style="list-style-type: none"> -More aggressive than honeybees -Attack in large numbers -Will attack 3 times farther from their hive 	<ul style="list-style-type: none"> -Or, apply baking soda paste

Caterpillars

Asp



Buck Moth



Hag Moth



Saddleback



Io Moth



Spiny Oak Slug



Stinging Rose



See reverse for sting symptoms and first aid.

Caterpillars

SYMPTOMS

Local Reactions

- Cold or numb feeling
- Severe body pain
- Swollen lymph nodes
- Red & swollen sting site

Systemic Reactions

- Dizziness & fainting
- Difficulty breathing
- Swollen lymph nodes in groin

* Caterpillar hairs can cause respiratory problems & blindness.






FIRST AID

- Apply sticky tape (medical adhesive or duct tape) to sting. Assure firm adhesion and then pull it off.
- Apply topical cream or hydrocortisone.
- Oral Benadryl® may be taken.




Seek Immediate Medical Attention For:

- Systemic reactions
- Extreme pain
- Inhaled hairs or hairs in the eye




Insects

	SYMPTOMS	FIRST AID
Fire Ant 	<ul style="list-style-type: none"> -Multiple stings -Severe burning sensation -Small blister or whitish pustule 	<ul style="list-style-type: none"> -Wash wound -Apply cool compress -Reaction far from sting suggests risk for anaphylaxis with future stings
Carpenter Ant 	<ul style="list-style-type: none"> -Injects no venom 	<ul style="list-style-type: none"> -Remove stinger -Wash wound -Apply topical cream containing antihistamines, corticosteroids, benzocaine or menthol
Harvester Ant 	<ul style="list-style-type: none"> -Painful bite -Venom may travel along lymph vessels and create serious medical problems 	<ul style="list-style-type: none"> -Or, apply baking soda paste -Use pain reliever if necessary
Paper Wasp 	<ul style="list-style-type: none"> -Multiple stings -Painful bite -Swelling 	<ul style="list-style-type: none"> -Wash wound -Apply topical cream containing antihistamines, corticosteroids, benzocaine or menthol
Yellow Jacket 	<ul style="list-style-type: none"> -Central white spot with red halo -Local swelling 	<ul style="list-style-type: none"> -Or, apply baking soda paste


Insects

	SYMPTOMS	FIRST AID
Bald Face Wasp 	-Painful sting	-Wash wound -Apply topical cream containing antihistamines, corticosteroids, benzocaine or menthol
Cicada Killer Wasp 	-Typically do not sting -Have a long stinger	-Apply baking soda paste
Tarantula Hawk Wasp 	-Typically do not sting	
Velvet Ant Wasp (female) 	-Females sting upon extreme provocation	-Wash wound -Apply ice pack -Take analgesic if necessary

Millipedes & Centipedes

	SYMPTOMS	FIRST AID
Desert Centipede 	<ul style="list-style-type: none"> -Multiple bites -Very painful -Swelling -Lymph node swelling -Redness -Headache 	<ul style="list-style-type: none"> -Apply cool, moist packs -Apply topical creams containing benzocaine
Garden Centipede 	<ul style="list-style-type: none"> -Irregular heartbeat -Nausea & vomiting -Anxiety 	
Millipede 	<ul style="list-style-type: none"> -Not dangerous to humans -Secrete staining chemical -Chemical could blister skin 	

Scorpions

	SYMPTOMS	FIRST AID
<p>Striped Bark Scorpion</p> 	<ul style="list-style-type: none"> -Multiple stings -Local burning pain -Swelling -Numbness -Nausea & vomiting -Irregular heart beat -Blood pressure change -Blurred vision -Difficulty swallowing 	<ul style="list-style-type: none"> -Cool packs -Topical medication -Benadryl® by mouth -Seek Medical Attention Immediately for face numbness or a metallic taste in the mouth.

Snakes

Pit Vipers

Mojave Rattlesnake
Neurotoxic



Timber Rattlesnake
Neurotoxic



Banded Rock Rattlesnake



Mottled Rock Rattlesnake



Desert Massasauga



Northern Blacktail



Prairie Rattlesnake



Western Diamondback



Western Massasauga



Western Pygmy



Snakes

Copperheads & Cottonmouths

Broad-banded Copperhead



Southern Copperhead



Trans-Pecos Copperhead



Western Cottonmouth



Coral Snakes

†Coral Snake
Neurotoxic



Red on Black
Venom Lack
Red on Yellow
Kill a Fellow

Milk Snake
Not Poisonous



Snakes

SYMPTOMS

MILD ENVENOMATION

- Fang marks, usually paired but not always
- Mild to severe pain
- Mild inflammation and swelling
- No systemic symptoms

MODERATE ENVENOMATION

- Fang marks with swelling
- Immediate pain at bite site & spreading to surrounding tissue
- Blood and/or serum may ooze from fang punctures
- Vomiting, metallic taste in mouth
- Muscle twitches or tremors

SEVERE ENVENOMATION

- Immediate, severe pain at bite site
- Oozing of serum & blood from fang punctures
- Rapid swelling, some bruising
- Metallic taste, numbness of lips, nose, or tongue
- Blurred vision, altered mental state
- Shock, diffuse, or life-threatening internal bleeding
- Respiratory difficulty
- Kidney failure

† Symptoms of *Coral Snake* bites may be delayed for 10-12 hours. If it is likely that the bite is from a coral snake, the victim should be taken to a hospital for observation and treatment.

Snakes




FIRST AID

- Seek medical attention immediately for treatment.
- Remain calm.
- Remove any rings or constricting items because the affected area may swell.
- If possible, wash the bite with soap and water and cover with a clean cloth or dressing.
- Immobilize the bitten area.
- Keep the bitten limb level with the heart.



- NEVER cut the skin.
- NEVER attempt to suck the venom out.
- NEVER use ice.
- NEVER use a tourniquet.
- NEVER use aspirin, anti-inflammatory drugs or alcohol.
- NEVER use electric shock
- NEVER try to capture the snake.

Call the Poison Center at **1-800-222-1222**
for more instructions.







Spiders

	SYMPTOMS	FIRST AID
Black Widow Neurotoxic 	<ul style="list-style-type: none"> -Pin prick bite -Tingling sensation -Muscle & abdominal cramping -Nausea, vomiting & weakness -Difficult breathing 	<ul style="list-style-type: none"> -Benadryl® by mouth -Seek Medical Attention Immediately
Brown Recluse 	<ul style="list-style-type: none"> -Stinging sensation -Painful bite site after 6-8 hours -Pale circle with red spot -Hot bite site -Fever -Joint pain -Nausea & vomiting 	<ul style="list-style-type: none"> -Apply cool packs -Seek Medical Attention Immediately
Yellow Sac 	<ul style="list-style-type: none"> -Painful bite -Swelling -Tissue damage 	<ul style="list-style-type: none"> -Apply cool packs -Benadryl® by mouth -Consult doctor



Mosquito-Borne Diseases

	SYMPTOMS	FIRST AID
<p>West Nile Virus</p> 	<ul style="list-style-type: none"> -Occur 5-10 days following bite -Fever -Headache -Nausea & vomiting -Body aches -Fatigue -Rash (2-5 days after fever) <p>Severe symptoms:</p> <ul style="list-style-type: none"> -High fever -Severe headache -Stiff neck -Disorientation or confusion -Stupor or coma -Tremors or muscle jerking -Lack of coordination -Convulsions 	<ul style="list-style-type: none"> -No vaccine or specific antiviral treatment -Over the counter pain relievers can be used as directed -Mild symptoms usually resolve on their own <p>-Seek Medical Attention Immediately for severe symptoms</p>
<p>Dengue Fever</p> 	<ul style="list-style-type: none"> -Occur 3-14 days following bite -Mild to high fever -Severe headache -Pain behind the eyes -Muscle and joint pain -Rash <p>Severe symptoms:</p> <ul style="list-style-type: none"> -Abdominal pain -Persistent vomiting -Bleeding -Breathing difficulty 	<ul style="list-style-type: none"> -No vaccine or specific medication for Dengue Fever -Rest -Drink fluids

Tick-Borne Diseases

	VECTOR	SYMPTOMS	FIRST AID
<p>Rocky Mountain Spotted Fever (RMSF)</p>  <p><i>Shield-circular spot on a tick's back; used for identification</i></p>	<p>American Dog Tick</p>  <p>Brown Dog Tick</p>  <p>Rocky Mountain Wood Tick</p> 	<p>-Occur 5-10 days following tick bite</p> <p>-Fever</p> <p>-Nausea</p> <p>-Vomiting</p> <p>-Body aches</p> <p>-Rash in 90% of cases</p>	<p>-Remove tick (see next page)</p> <p>-See doctor within 5 days for antibiotic treatment</p> <p>-RMSF can be fatal in the first week of symptoms if not treated properly</p>
<p>Lyme Disease</p> 	<p>Blacklegged Tick (deer tick)</p>  <p>Circular, dark shield</p>	<p>-Expanding rash in 80-90% of cases, solid red or bull's eye 1-2 weeks after disease transmission</p> <p>-Flu-like illness</p> <p><u>Later symptoms:</u></p> <p>-Headache</p> <p>-Stiff neck</p> <p>-Fatigue</p> <p>-Cognitive impairment</p>	<p>-Remove tick (see next page)</p> <p>-See a doctor for antibiotic treatment if symptoms appear</p> <p>-10-20% of patients may have recurrent or persistent symptoms even after antibiotic treatment</p>

Tick-Borne Diseases

	VECTOR	SYMPTOMS	FIRST AID
Southern Tick Associated Rash Illness (STARI) 	Lone Star Tick  Female (left) has a white 'star' on the shield	-Similar to Lyme disease -Fever -Headache -Fatigue -Muscle/joint pain -Target-like rash	-Remove tick -See a doctor for antibiotic treatment if symptoms appear

Tick Engorgement Sequence

Blacklegged Tick (Deer Tick) pictured



Preventing Tick Bites

Wear light colored clothes to see ticks better; use insect repellents with DEET or Permethrin; and check clothing and skin daily for ticks.

Tick Removal

1. Use fine-tipped tweezers or a tick removal tool to grasp the tick as close to the skin's surface as possible.
2. Pull upward with even pressure. Don't twist the tick; this can cause mouth-parts to break off in the skin. If this happens, clean the bite site and apply antiseptic cream.
3. After removing the tick, thoroughly clean the bite area and your hands with soap and water or hand cleaner.
4. Keep the tick in a zip-locked bag or jar and store in a freezer for identification or testing purposes.

DO NOT burn the tick, smother it with oil, alcohol, or Vaseline or crush the tick with your fingers.

Acknowledgements

Product created from source material developed by Paul H. Risk, Ph.D.,
Stephen F. Austin State University, Nacogdoches, Texas

Photos courtesy of:

Ricardo Bessin, PhD, Kentucky Cooperative Extension
James Castner, UF, Entomology & Nematology Department
Entomology & Plant Pathology, Oklahoma State University
Troy and Terry Hibbits
Carolyn Houghton Insall, MS, Central Texas Poison Center
Jim Kalisch, University of Nebraska, Dept. of Entomology
Mark M. Lucas
Jude McNally
Gary Nafis
Jerry A. Payne, USDA Ag Research Service, Bugwood.org
Jason Penney
Michael A. Seymour, LSU Agricultural Center
Emedicine Clinical Knowledge Base
Texas Department of State Health Services
The Nature of Things
www.nmherps.com
www.tickinfo.com

A special thanks to our reviewers:

Jim T. Criswell, PhD, Oklahoma State University
Richard J. Gadd, SCS Ltd.
Jean Hite, Oklahoma State University
J. A. Hogsette, PhD, USDA Ag Research Service
Carolyn Houghton Insall, MS, Central Texas Poison Center
D. L. Kline, PhD, USDA Ag Research Service
Kimberly Hutchison Lohmeyer, PhD, USDA Ag Research Service
William I. Lutterschmidt, PhD, Sam Houston State University
Tracie Nalie, Oklahoma State University
Paul H. Risk, PhD, Stephen F. Austin State University

Disclaimer:

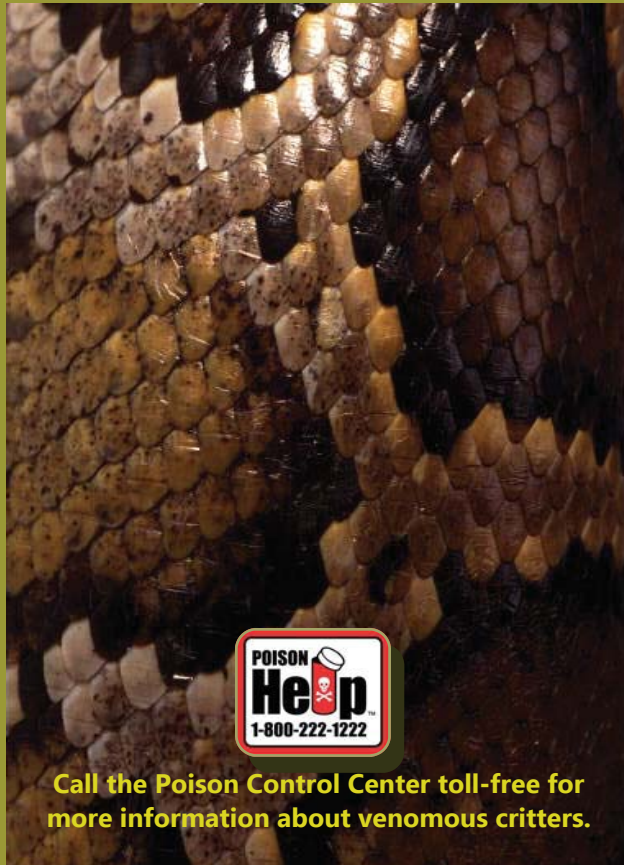
The information contained in the Bites, Stings & Venomous Things tip cards is believed to be accurate and reliable; however, The Southwest Center for Agricultural Health, Injury Prevention and Education (SW Ag Center) and other affiliated organizations assume no responsibility for any errors appearing in the information. In addition, neither The SW Ag Center nor their affiliated organizations assume responsibility for the use of the information provided. The contents of these tip cards do not necessarily represent the official views of The National Institute for Occupational Safety and Health (NIOSH) or any other affiliates.

**Additional copies are available upon request.
For information please contact:**



Southwest Center for Agricultural Health,
Injury Prevention and Education
11937 U.S. Hwy 271
Tyler, TX 75708-3154
(903) 877-5998

agcenter@uthct.edu • www.swagcenter.org



**Call the Poison Control Center toll-free for
more information about venomous critters.**