



**Master Builders' Association**  
Of Western Pennsylvania, Inc.

**Summer Safety Procedures:  
On the Worksite and At  
Home**

**2018**

## **Master Builders' Association Summer Work Procedures**

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## Safety Risks in the Summer

### Why Read This?

Can you answer the following questions?





- How can you tell the difference between heat exhaustion and heat stroke?
- What is needed on your jobsite or at home to prepare for the summer?
- What are the symptoms of Lyme Disease?
- What does Melanoma Skin Cancer look like?
- What risks pose a threat at home in the summer?

This packet was written to provide beneficial information on the hazards of working in construction in the summer time. It will also educate workers on how to recognize and prevent risks associated with working in the summer. Because the seasons change, the way we operate in terms of safety changes as well. The following is a list of common safety risks that are heightened in the summer:

- Heat Illness
- Dehydration
- Skin Damage from the Sun
- Infection/Disease
- Environmental Hazards (insects, plants, animals, etc.)
- Dry Conditions/Dust
- Unsanitary Site Conditions
- Leaving Children/Pets in Cars

## Heat Illness

The human body has a natural regulatory system to control its internal temperature to allow the organs to operate most efficiently. This optimal internal body temperature is **98.6 °F**. The body's internal temperature can rise or fall to dangerous levels if something causes the regulatory system to weaken, which in turn will cause permanent internal damage. An example of a regulatory system would be sweating, which works to cool the body and prevent overheating. Preventative measures should be taken to ensure that heat illnesses do not occur. Knowledge on how to recognize and respond to if a person is suffering from a heat illness is crucial.

Illness	Symptoms	Treatment
<b>Heat Rash</b> 	<ul style="list-style-type: none"> <li>• Skin irritation characterized by red cluster of pimples or small blisters</li> </ul>	<ul style="list-style-type: none"> <li>• Keep rash dry</li> <li>• Apply powder, <b>DO NOT</b> use ointments or lotion to soothe.</li> <li>• Wear loose, lightweight cotton clothing</li> </ul>
<b>Heat Cramps</b> 	<ul style="list-style-type: none"> <li>• Muscle pains caused by loss of body salts and fluid from sweating</li> </ul>	<ul style="list-style-type: none"> <li>• Immediately replace fluids by drinking water or electrolyte replacement liquid.</li> </ul>
<b>Heat Exhaustion</b> 	<ul style="list-style-type: none"> <li>• Heavy sweating</li> <li>• Extreme weakness/fatigue, dizziness, confusion</li> <li>• Nausea</li> <li>• Clammy, moist skin and pale or flushed complexion</li> <li>• Muscle cramps</li> <li>• Body temp above 100.4 °F</li> <li>• Fast, shallow breathing</li> </ul>	<ul style="list-style-type: none"> <li>• Take worker immediately out of the hot area and should drink plenty of fluid</li> <li>• Remove any tight or unnecessary clothing.</li> <li>• Apply cold compresses</li> <li>• Watch worker in case symptoms worsen</li> </ul>
<b>Heat Stroke</b> 	<ul style="list-style-type: none"> <li>• Hot/dry skin or profuse sweating</li> <li>• Hallucinations</li> <li>• Chills</li> <li>• Throbbing headache</li> <li>• High body temperature</li> <li>• Confusion/dizziness</li> <li>• Slurred speech</li> </ul>	<ul style="list-style-type: none"> <li>• Call 911 <b>IMMEDIATELY</b> – This is a Medical Emergency</li> <li>• Move person to cooler environment</li> <li>• Reduce body temp with cold compresses</li> <li>• <b>Do NOT</b> give fluids</li> </ul>

## Heat Acclimation and the Importance of Hydration

### Why is heat acclimation important?

When summer work commences, it is important that workload gradually increases for workers or more breaks are provided throughout the day. Doing so will help new workers and workers returning to a job after time off to build up their tolerance to high heat conditions. In 2005, OSHA conducted a study on heat-related illnesses. The study found that 50% of cases involved a worker in their first day of work and 80% of the cases involved workers that had only been on the job for four or fewer days.



### Hydration

It is very important to stay hydrated during work in high heat conditions. Avoid alcoholic beverages and caffeine, these both dehydrate the body and hinder the kidneys from water absorption. Workers should drink plenty of water and drinks with electrolytes.

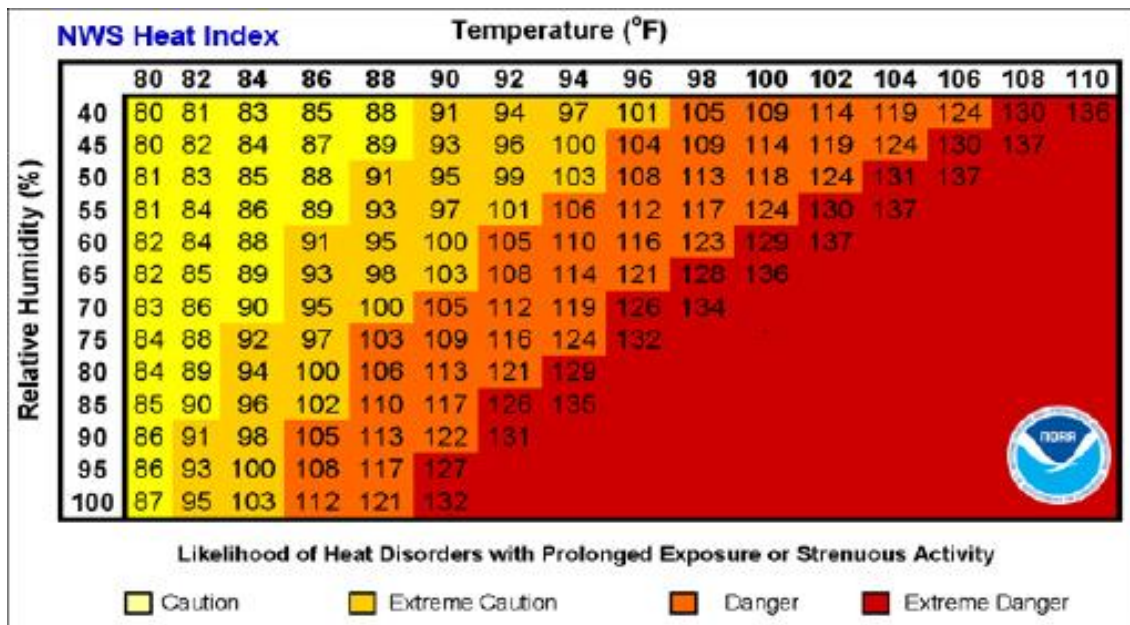
### Electrolytes

A deficiency in electrolytes in the body can cause the body to cramp and have a chemical imbalance. If your body has already begun to cramp, immediate replenishment of electrolytes is needed. It is important to consume foods and drinks beforehand that provide electrolytes for the body. Examples of some foods and drinks include:

- Almonds
- Bananas
- Raisins
- Potatoes
- Spinach
- Sports drinks

## Humidity and Heat Index

Relative humidity is a measure of moisture in the air. The heat index, also known as the apparent temperature, is what the temperature feels like to the human body when relative humidity is combined with the air temperature. The evaporation of sweat is the human body's way of cooling itself down when in the heat. This function is hindered, in both high and low humidity, making the overall risk greater. In high humidity, sweat does not evaporate as quickly which makes a person feel hotter. In low humidity, sweat evaporates a lot more quickly which can lead to dehydration if a person is not properly hydrated.



## Skin Cancer

### Melanoma

Skin cancer accounts for more new cases each year than breast cancer, prostate cancer, lung cancer, and colon cancer **COMBINED**. Melanoma is the most dangerous type of skin cancer that accounts for 75% of all skin cancer deaths. It develops in the pigment producing cells of your skin which produces an unusual looking growth on your skin which can sometimes resemble a mole. If you see a change in a preexisting mole or the previous stated warning signs, it is best to say something and get it checked out immediately.

#### Early signs of Melanoma:

- Asymmetry
- Borders (irregular)
- Color (variated)
- Diameter (greater than 0.25 in.)
- Evolving over time

#### Late signs of Melanoma:

- Elevated above the skin surface
- Firm to the touch
- Growing



Avoiding the sun's radiation is the best way to prevent melanoma but when it is unavoidable you should wear long sleeves or clothes to block as much sun exposure as possible. Take every opportunity to work in shaded areas and make sure to apply sunscreen that is at least SPF 50 or higher and right for your skin type, to all exposed body parts.



## Insects, Ticks, Plants, and Animals

### Insects

During summertime, insects are more abundant because of the higher temperatures and stagnant water supplies. It is important to keep the worksite or even your home free of any water that accumulates in buckets or other items where insects, such as mosquitoes, will be attracted to. Attempt to wear long-sleeved shirts and pants tucked into boots to limit the amount of skin insects can come in contact with.

### Insect Repellent

Insects are attracted to the natural smell that humans produce. DEET is one of the most common key ingredients in insect repellent. DEET masks the smell that attracts insects to us and makes it harder for them to detect. It is better to apply repellent to clothes rather than skin to avoid causing any irritation.



### Trash and Food

Properly and quickly dispose of all trash and food on the jobsite so as to eliminate making the worksite more appealing to insects.

### Bees

It is a best practice to assume that any bee will sting a human if they feel threatened enough. If you are allergic to bees you should have a doctor prescribed Epipen accessible at all times in case of an emergency. If a person is stung and has an allergic reaction, immediate medical attention is needed. Benadryl should be kept on site to reduce an allergic reaction.



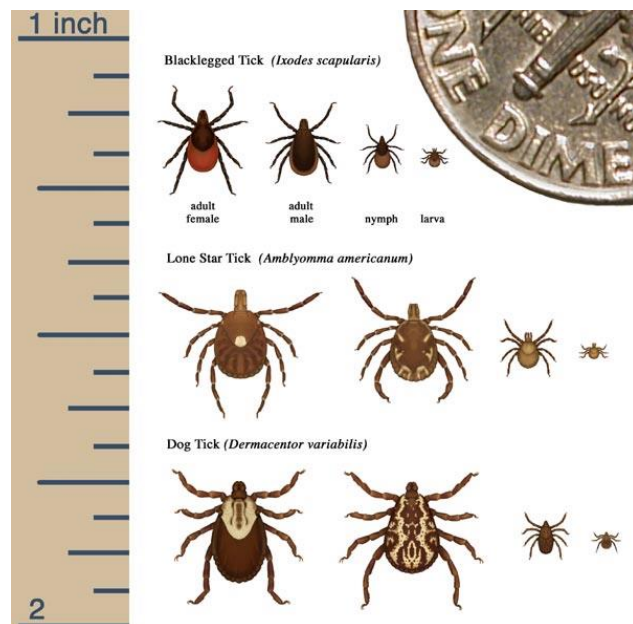


## Ticks

The best practice to avoid attracting ticks is to use insect repellent. Also, wear light colored, long-sleeved shirts and long pants tucked into boots, especially when working in thick vegetation. After working outside, always do a thorough inspection of your skin to make sure no bites occurred. Ticks tend to gravitate towards protected areas such as armpits, hair, and groin area. A common warning sign that you have been bit by a tick is a “bulls eye” like shape that appears around the bite. Tick bites will not always occur in the protected areas or may not show the bulls eye shape surrounding the bite so do not assume a bite did not occur if neither of these signs are present. If bitten, immediately remove the tick with a slow and steady pull and make sure that the head is removed as well. Afterward, seek immediate medical attention to assure that a Lyme disease test is conducted.

Lyme disease is a bacterial infection that can be caused from an insect bite, or most commonly an infected deer tick. If untreated, it can cause a number of other health issues. An early diagnosis is extremely important to allow the antibiotics to run their course. If you experience any of the symptoms listed below, seek medical attention immediately:

- Fever
- Chills
- Headaches
- Fatigue
- Swollen Lymph Nodes
- Joint Pain
- Muscle Aches

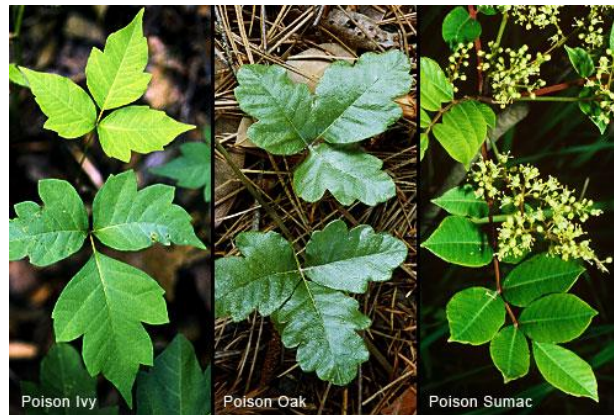


The most common types of ticks found in Western Pennsylvania are the American Dog Tick, Blacklegged Tick, Lone Star Tick, and Groundhog Tick.

## Plants

Poison Ivy, Oak, and Sumac can be contracted by directly touching or brushing up against the plants or by touching something that has come in contact with the plants. Wear long-sleeved shirts and long pants when working in areas with these plants. After work, be sure to wash clothing thoroughly. Common symptoms include the following:

- Itching
- Red streaks or general redness where at the point of contact
- Small bumps or larger raised areas (hives)
- Blisters that may leak fluid
- In some serious cases there may be symptoms such as:
  - Trouble breathing
  - Swelling of the face, mouth or neck
  - Eyelids swell shut
  - Widespread, large blisters that ooze a lot of fluid



## Animals

Contact with any animal on the jobsite should be avoided at all costs, even with domestic animals. Animals are more likely to wander onto a worksite in the summer time because of the warmer weather and are most likely in search of a food source. Proper disposal of food and garbage is crucial to preventing animals from being attracted to the site. Some common wild animals that a jobsite might encounter are opossums, foxes, raccoons, rats, mice, and birds. Any animal spotted during the day, that is typically a nocturnal animal, is especially dangerous because the animal is desperate for food or very sick. Be able to identify the signs of animals infected with Rabies. The most common warning sign for rabies (if it has reached a later stage) is an animal foaming at the mouth. Avoid any contact and if bitten, whether rabies is suspected or not, seek medical attention immediately.

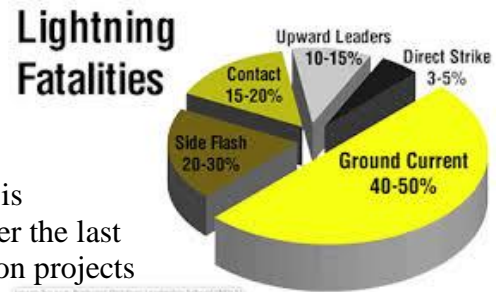


## Lightning

Lightning occurs when electrical charges are imbalanced between the ground, air, and clouds. When charges build up enough, a quick, sudden discharge of electricity occurs to balance the electrical equilibrium. This sudden discharge is lightning. The warm, summer weather holds more water vapor and when it raises in updrafts it causes instability in the atmosphere. This can lead to the creation of storms which in turn creates conditions conducive to lightning streaks.

### How to Stay Safe from Lightning

Always keep an eye out, especially in hot, humid, overcast days, for lightning in the distance and be prepared with a plan if the lightning approaches quickly. If lightning is deemed to be too close to work, wait at least 30 minutes after the last flash of lightning before returning to work. When working on projects that require conductive machinery, operators have the authority to stop work if they feel that their operations are putting themselves or others in serious danger.



### Where Should You Go to Stay Safe from Lightning?

It is important to remember to avoid open areas, any electrical conductors such as fences, and any isolated tall trees, towers, or utility poles. It has been said that the rubber wheels on the tire are what prevent lightning from striking cars and keep the passengers safe. This is incorrect. Cars, airplanes and trains do get struck by lightning but the passengers inside remain safe due to the Faraday Cage principle. This principle states that an electrical charge remains only on the exterior of a hollow conductor but not the interior. Remain inside your vehicle to stay safe.

### If Someone is Struck by Lightning...

Immediately call 911. When a person is struck by lightning, they carry no electrical charge which makes it okay to handle them. There may be entry and exit electrical burns where the lightning struck the person. If breathing has stopped, a certified person should begin CPR rescue breathing until help has arrived.



## Summer Safety at Home

### Vehicles

**Never, ever leave a child or pet in a vehicle during the summer months.** It is important to teach children to not play in or around cars because they could accidentally lock themselves inside. Make sure to also keep car keys out of reach of children.



### Summer Activities

Keep in mind that your hydration does not stop when the work week does. It is important to keep hydrated over weekends to prepare you for the upcoming weeks work.

### Trampolines

The American Academy of Pediatrics estimates close to **100,000** kids, ages 5-14, are injured each year on trampolines. Though a very popular activity in the summer months, it can be very dangerous. Children should be monitored at all times while in use. It is recommended that in-ground trampolines be used as an alternative to above-ground ones.



### Biking

The CDC indicates that almost **300,000** children are injured per year from bicycle accidents.

When teaching children how to ride a bike, make sure to first introduce training wheels. Remember to go over looking both ways before crossing the street, how to break, check their tires before riding, and lastly how to ride in inclement weather. Emphasize that helmets must *always* be worn.

## Pools and Swimming

Never, under any circumstances, should a child be swimming without any form of supervision. Anyone, even experienced swimmers, can be at risk of drowning as a result of hitting their head, clothing or hair getting caught in the drain, horseplay, etc. Small children can drown in inches of water so supervision should happen even if it is a kiddie pool. It is recommended that parents become CPR certified.



## In Your Own Backyard

The same safety standards that apply at work should be applied at home. Slips, trips, falls, holes, sharp objects, hot surfaces, fencing, pesticides, and dangerous equipment or toys are all subjects that should be discussed when summer weather starts to come into effect.

