

INTRODUCTION

Heat illness is a serious concern for anyone working in the entertainment industry. From stagehands to actors, directors, and production crew, many people find themselves working in hot conditions for extended periods of time. Whether you are filming on a hot set, performing under bright stage lights, or working outdoors, it's important to be aware of the risks associated with heat exposure and how to prevent heat-related illnesses. In this lesson, we will cover what heat illness is, the different types of heat illness that may be experienced when exposed to high temperatures, environmental and personal risk factors, and ways to minimize the potential of experiencing heat-related illnesses.



WHAT HEAT ILLNESS IS

In general, heat illness is described as a medical condition that results from the body's inability to cope with a particular heat load.

For instance, when it gets warmer, the human body starts to try to rid itself of excess heat (this is otherwise known as heat dissipation) in order to maintain a healthy internal body temperature. This occurs naturally through sweating and increased blood flow to the skin. However, if heat dissipation does not occur quickly enough, the internal temperature of our bodies keeps rising, resulting in us experiencing medical conditions that may present as mild to severe, and when left untreated, be fatal.

DIFFERENT TYPES OF HEAT-RELATED ILLNESSES

Just as with other medical illnesses, there are different types of heat-related illnesses that you may experience if you are not careful. These include, but may not be limited to:

- Heat stroke
- Heat exhaustion
- Rhabdomyolysis
 - A rapid breakdown, rupture, and death of muscles.
- Heat syncope (i.e., fainting from the heat)
- Heat cramps
- Heat rash

Common symptoms associated with heat-related illnesses include, but may not be limited to:

- Excessive sweating
- Cramps
- Nausea
- Vomiting
- Diarrhea
- Headache
- Fatigue
- Weakness
- Feeling faint



ENTERTAINMENT: HEAT ILLNESS PREVENTION

- Increased anxiety
- Agitation
- Lethargy
- Seizures

If you start feeling or noticing that someone else is displaying any of the mentioned symptoms, immediately notify your supervisor, director, or other designated personnel on the production team. For more information on first aid for heat illness, please refer to our “First Aid: Heat Illness” lesson.

ENVIRONMENTAL AND PERSONAL RISK FACTORS

In addition to the different types of heat-related illnesses that may be experienced, there are certain environmental and personal factors that can increase an individual’s chances of developing a heat-related illness.

Common environmental factors include:

- Air temperature
- Relative humidity
- Radiant heat from the sun and other sources
- Conductive heat, such as the ground
- Air movement
- Workload (i.e., how long you are doing something and the severity of the work you are doing)
 - Performing moderate, heavy, or very heavy tasks in hot conditions can increase your chances of developing heat illness.
- Work clothing
- Personal protective equipment

Personal risk factors include:

- The individual’s age
- The individual’s weight
 - Obesity can affect how well your body handles heat because fat is a natural insulator that traps core body heat.
- The individual’s fitness level
- Medical conditions such as high blood pressure, diabetes, heart disease, etc.
- Using certain medications such as diuretics (i.e., water pills), psychiatric medication, blood pressure medication, etc.
- How hydrated the individual is
 - Not drinking enough water during the day can contribute to dehydration.
 - Common symptoms of dehydration include extreme thirst, less frequent urination, dark-colored urine, fatigue, dizziness, and confusion.
- The types of beverages the individual consumes
 - Alcohol can cause dehydration and beverages that contain caffeine can affect your heart.
- How acclimated the individual is to the heat
- If the individual smokes
 - If you have questions about how smoking can affect your body’s ability to deal with the heat, please speak with your medical provider.

Please note that young children and elderly individuals who are part of the production may be especially susceptible to the heat than adults who are young or middle-aged.





ENTERTAINMENT: HEAT ILLNESS PREVENTION

WAYS TO MINIMIZE THE POTENTIAL OF EXPERIENCING HEAT-RELATED ILLNESSES

While the combination of environmental and personal factors can seem daunting, there are things that you and others on the production can do to help minimize the chances of someone experiencing heat-related illnesses. These include, but may not be limited to:

- Attend all safety trainings and briefings for your production.
- Where feasible, allow time for people to acclimatize to the environment.
 - Depending on where the production is taking place, there may be acclimatizing time frames that should be in place. If you have questions regarding these requirements, please speak with your supervisor or designated contact.
- Wear the appropriate clothing for the conditions.
 - For example, lightweight, light-colored clothing and hats.
 - If you notice that costumes are making you feel hot when temperatures are elevated, notify the costuming department, director, and other designated personnel.
- Drink plenty of water.
 - If water supplies are getting low, notify your supervisor or designated contact.
 - It is recommended that you avoid drinking drinks that can be diuretics, such as soda, sugary, caffeinated, and/or alcoholic beverages.
- Take all provided meal and rest breaks, including cool-down breaks.
 - Cool-down breaks can help your core body temperature cool down when you start to feel overheated. This can include excessively sweating or feeling dehydrated.
 - If you feel the need to take additional cool-down breaks, please speak with your supervisor or designated contact.
- Where applicable, use provided shaded areas and designated rest break areas.
- Where feasible, use adequate ventilation and/or cooling systems when working in enclosed spaces, such as indoor sets and stages.
- Immediately notify someone if you're feeling unwell or if you notice that someone else on the production team is displaying any signs or symptoms of heat-related illness.

Note: If you have any concerns regarding high heat or someone overheating due to costuming or other duties, please speak with your supervisor or designated contact.

CONCLUSION

To conclude, heat illness is a risk that can't be ignored in the entertainment industry. With proper awareness, planning, and preventive measures, the risk can be substantially mitigated. It's everyone's responsibility to ensure a safe working environment, and that means taking heat illness seriously. Remember to stay cool, stay hydrated, and stay safe. If you have questions about anything regarding heat illness and your production, please speak with your supervisor or designated contact.

