Want More Information?

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We are a fiscally sponsored 501c3 but still no questions asked!

Thank you for your solidarity!

HEAT INJURY

WE HAVE ALL HAD AN UNPLEASANT DAY OUT IN THE HEAT. DURING THIS SUMMER SEASON, WE WANT TO MAKE SURE YOU HAVE THE KNOWLEDGE TO ENSURE THE DAY DOESN'T MOVE FROM UNPLEASANT TO TRAGIC.

LETS TALK ABOUT THE TYPES OF HEAT INJURY AND HOW TO AVOID AND TREAT THEM!

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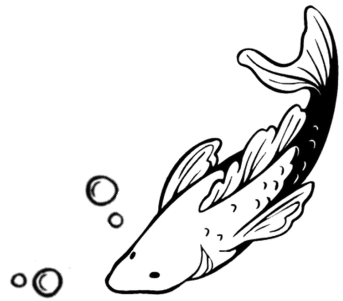
Notes:



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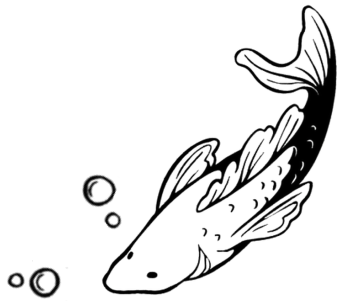


Important Note

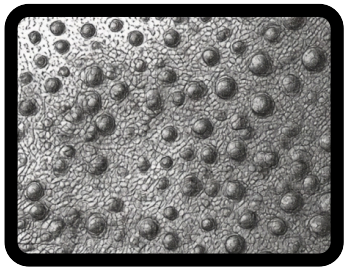
Many of our zines are focused on the unhoused community living in our cities and how they are affected by the topics we cover. That continues to be true with this zine but their specific conditions sit further in the background than usual. We wanted to take this moment to remind you that; chronic dehydration, lack of access to shelter, cooling stations, and hydrating drinks, as well as lack of access to healthcare can make heat injury much more likely and much more deadly for unhoused folk than the housed population.

That said, heat injury can and does affect everyone. From a kiddo playing in a splash pool, a laborer working on a roof, to a protester standing up in the streets... everyone should know the signs and treatment for heat illnesses and injuries!

This Affects Everyone!

Heat Rash

Heat rash is caused by the trapping of some portion of sweat under the skin. This can be caused by excessive sweating or tight/non-breathable clothing. The rash can range from small bumps that do not itch to inflamed lumps that cause significant pain.

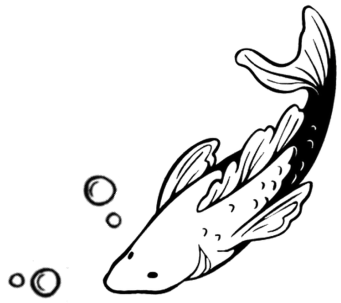


Remember that heat rash may not be visibly red, especially on darker skin tones.

Treatment for this is usually relatively simple: remain hydrated, remove yourself from the hot environment and cool the skin directly if possible. If the symptoms do not resolve quickly or you are in intense pain, seek additional medical care!

Also called: Prickly Heat or Miliaria Rubra

Notes:



Unhoused Neighbors

Throughout this zine you may have been imagining how you could use this information to help an unhoused neighbor in your community. Our neighbors who exist without shelter are often at the most risk for heat related illnesses for all of the reasons they are disproportionately affected by other common illnesses and injuries. They don't have regular access to water, healthy food, temperature control, weather appropriate clothing, and any number of other resources that maintain livable conditions.

We recommend carrying water, hydration packs like Liquid IV, and single use cold packs in your car if you can. That way, if you see a neighbor who is experiencing any of the symptoms described in this explainer you can help them immediately while advocating for additional support from nearby business to get them out of the heat or from emergency medical services.

You can also find organizations like ours in your community to donate to or collaborate with to provide this assistance in a more intentional way. We are always looking for help as are the other organizations doing this work!

How Can You Help?

Heat Cramps

Heat cramps are caused by a lack of necessary salts and other nutrients needed for healthy muscle movement. In addition to the nutrients lost due to sweating, the nutrients remaining in the body are diluted by any water consumed to re-hydrate. This is why electrolyte drinks are a necessary addition to water when doing significant work in hot environments.

You may feel these cramps in your feet/hands, limbs, abdomen (belly) or your shoulders. They can also be a warning sign for some of the more dangerous forms of heat illness. If you are experiencing heat cramps, take them seriously and hydrate with an electrolyte drink and rest in a cool environment when possible!

A Warning Sign...

Heat Exhaustion

Heat Exhaustion is incredibly common during the summer months and is the result of acute dehydration. If left untreated it can rapidly progress to Heat Stroke.

Its symptoms can include:

- Headache
- Nausea
- Dizziness
- Weakness
- Irritability
- Thirst
- Pale Skin
- Heavy Sweating
- Elevated Body Temp
- Decreased Urine Output
- Rapid Breathing
- Increased Heartrate

Note the similarities of some of these symptoms to the symptoms of opioid withdrawal. These coincident symptoms can put people who use opioids at higher risk of death due to misidentification of harm.

Symptoms

Rhabdomyolysis

There is no way to self diagnose with Rhabdo. A blood test is required to positively identify the condition. If you are experiencing any of the symptoms listed above and they aren't resolved by hydration, stopping the activity, moving to a cool environment, or active cooling, then you should seek medical attention. Be sure to describe the activity you were doing to your doctor and request that they test you for rhabdo.

Depending on the length of time between the activity that caused the rhabdo and when you decide to seek medical attention as well as the severity of the symptoms, you may need to call 911 for an ambulance. If left untreated for any period of time rhabdo can cause permanent disability or death.

There is a misconception that rhabdo is only common in people who are out of shape; this is absolutely not true. Rhabdo can happen to anyone! Every year athletes, firefighters, and other physically fit people get rhabdo and die.

Rhabdo is not caused by dehydration but dehydration can make it worse. If you suspect rhabdo, hydrate with only water while you seek medical attention as this can help the kidneys flush the electrolytes and proteins more effectively in the short term.

Remember, this condition is caused by your muscles literally dying. This isn't something you can ignore.

Treatment

Rhabdomyolysis

Rhabdomyolysis or Rhabdo can be caused by many mechanisms, but as a heat injury it is associated with prolonged, strenuous work in warm environments. It is the rapid breakdown of muscles leading to muscle death and the release of large amounts of electrolytes and proteins into the body's systems.

Its symptoms can include:

- Muscle Cramps/ Pain
- Weakness
- Exercise Intolerance
- Abnormally Dark Urine
- No Symptoms

Symptoms

Heat Exhaustion

Since Heat Exhaustion is dangerous on its own and can rapidly progress to Heat Stroke, it is important to engage in aggressive treatment as soon as symptoms are observed. You should also ensure someone else is aware of your condition in-case you require help.

Active cooling and re-hydration are the most important pieces of the recommended treatment.

When you identify the symptoms above, drink water immediately and remember to include electrolytes (at least one drink in 3) to ensure you aren't exacerbating the existent dehydration. You should also move to shade or an air conditioned room immediately.

Full immersion into cool water is the ideal recommendation for cooling but a good option if that is not possible is placing cool packs or wet towels on the junction points of the body (pictured) will work to quickly cool someone. These junction points are where the largest amount of blood is the closest to the surface of the skin and cooling that blood will diffuse cooling as quickly as possible.

Treatment

Heat Stroke

Heat Stroke is a very severe type of heat injury. If left untreated it can rapidly progress to death. Due to the cognitive effects, it is very difficult to self-diagnose.

Its symptoms can include:

- Headache
- Nausea
- Dizziness/Fainting
- Seizures
- Slurred Speech
- **Confusion**/ Aggression
- Red/**Dry Skin**
- **Inability to Sweat**
- Elevated Body Temp
- Hallucinations and Altered Mental State
- Rapid Breathing
- Increased Heart Rate

Symptoms

Heat Stroke

Due to the difficulty of self diagnosis you should ensure everyone you are around in a warm environment knows the danger signs and how to respond in-case someone is incapacitated.

If someone begins to describe any of the symptoms of heat exhaustion or you observe someone who appears to be feeling faint, is confused or is slurring their speech, or does not appear to be sweating when that would be unusual, check for the other symptoms listed above. Heat Stroke can progress quite quickly and immediate action needs to be taken.

Your first step should be to call 911. Heat Stroke is a medical emergency that needs the resources of a hospital to effectively treat. While you are waiting for assistance to arrive, cool the person as much as possible. Move them to a shaded or air conditioned environment. Full immersion in cool/cold water is ideal but you can also place ice packs or wet clothes on the areas described in the other image. Remove their outer clothing and wet as much of their body as possible. Move air over them to increase evaporative cooling. **DO NOT** put anything into the mouth of an unconscious person. If they are not conscious enough to swallow they need advanced medical care to re-hydrate.

Treatment