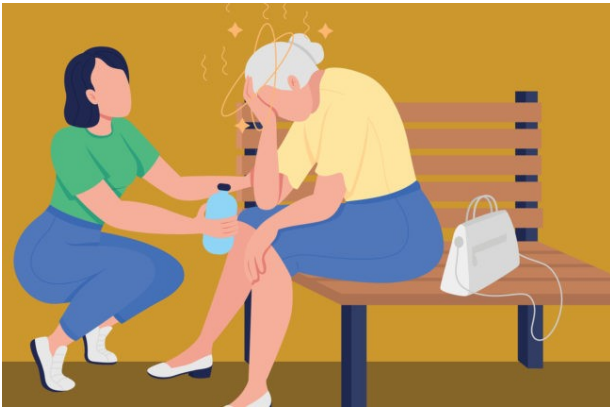


Helping caregivers through their journey one step at a time.

Cleveland Clinic Family Medicine

Heat Exhaustion and Heat Stroke Are Too Hot To Handle on Your Own

Both heat illnesses can be life-threatening if left untreated



Sultry summer days might have you dreaming of fun in the sun. But those bright, sunny days can also have a dark side if you're not careful.

"Heat illnesses can be very serious, and it's important to recognize the symptoms," says emergency medicine physician Thomas Waters, MD.

Heat stroke is the most severe form of heat illness, with primary symptoms that include confusion, altered mental status and a very high core body temperature above 104 degrees Fahrenheit (40 degrees Celsius).

Heat exhaustion is less dangerous, but can present with muscle cramps, headaches, dizziness, weakness, fatigue, nausea and vomiting. And there are other heat illnesses, too — not to mention the dangers of extreme sunburn.

Are heat stroke and heat exhaustion the same?

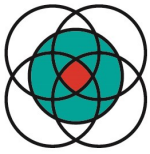
Heat exhaustion and heat stroke are types of heat-related illnesses.

"People often talk about heat exhaustion and heat stroke as though they are separate things. But they exist on a spectrum from not-so-serious to a significant and life-threatening emergency," Dr. Waters clarifies.

The spectrum of heat-related illnesses includes:

- **Heat rash:** Also known as prickly heat, this red, stinging rash develops when you're hot and sweaty. It's most likely to show up in areas where sweat gets trapped, like inside your elbows and behind your knees.
- **Heat cramps:** Painful muscle cramps can strike when you're exercising in hot weather. They develop when you sweat so much that your body loses salts and fluids.
- **Heat exhaustion:** More serious than heat rash or cramps, heat exhaustion occurs when your body can't cool itself through sweating. Untreated, it can progress to heat stroke.
- **Heat stroke:** Sometimes called sunstroke, this is the most severe heat-related illness. During heat stroke, your body temperature climbs quickly to dangerous levels. Often, people with heat stroke stop sweating. "The body's mechanisms for dealing with heat are overwhelmed," Dr. Waters explains. "Without treatment, can be deadly."

Continued on next page



Heat Exhaustion and Heat Stroke

One way to think about heat-related illness is to recognize sweating as your body's way of cooling itself down. Sometimes, on hot, humid days, sweating might not actually be enough to offer all the cooling your body needs. That's especially true if you're working out or doing physical work in hot and humid weather.

Heat exhaustion and heat stroke both cause your body temperature to rise. And that temperature spike goes hand-in-hand with several other symptoms.

Symptoms of heat stroke and heat exhaustion to look out for

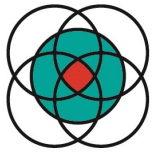
Heat exhaustion and heat stroke are similar. And while one leads to another, both are equally dangerous when left untreated. Signs and symptoms of both include:

Heat exhaustion	Heat stroke
High body temperature between 101 F (38.3 C) and 104 F (40 C).	High body temperature above 104 F (40 C).
Pale skin.	Dry, red skin.
Muscle cramps.	Inability to sweat.
Headaches.	Seizures.
Dizziness.	Dizziness or fainting.
Weakness and fatigue.	Slurred speech.
Rapid breathing and increased heart rate.	Hallucinations and altered mental state.
Nausea and vomiting.	Confusion, aggression or agitation.

Anyone can experience these heat illnesses in hot, humid conditions — and it's important to not just rely on your body temperature for self-diagnosis. If you experience *any* of these symptoms, get out of the sun, try to bring your temperature down and seek medical attention if your symptoms continue to get worse.

Another important thing to consider is that the following factors can increase your risk of developing these heat illnesses:

- **Age:** The young and old are most vulnerable to heat exhaustion and heat stroke. “Babies, children and older adults are at greater risk,” Dr. Waters says.



Heat Exhaustion and Heat Stroke

- **Activity level:** People working or exercising outside in the heat are more likely to develop heat-related illnesses.
- **Dehydration:** If you're dehydrated — from sweating a lot and not drinking enough to replace the lost fluids — you have a greater risk of developing heat illness. Drinking alcohol outside on a hot day can also increase your risk for these heat illnesses, as it contributes to dehydration.
- **Adaptation:** Your body gets better at responding to heat over time. If you travel from a chilly winter climate to a tropical location, you might be at greater risk until your body adjusts to the heat. The same is true if you start a new workout routine in hot weather. “That’s why most states now have laws to make sure high school athletes gradually work up to doing strenuous exercise in hot weather,” Dr. Waters shares. “It takes time for your body to acclimate to the heat.”

Treating heat stroke vs. heat exhaustion

If you have any signs of heat exhaustion, get out of the heat as quickly as you can. Drink some water to rehydrate and take steps to bring down your body temperature. It can also be helpful to immerse yourself in a tub of cold water to bring your temperature down quickly.

“To cool your body, apply ice packs to the neck, armpits and groin,” Dr. Waters advises. “You can also squeeze a rag of cool water over yourself to help you cool down.”

If you continue to feel sick — or notice signs of heat stroke, especially neurologic symptoms such as confusion, stumbling or clumsiness — call 911 or your local emergency hotline. Emergency room professionals have several methods to cool your body quickly and will monitor you for complications of overheating, such as damage to organs.

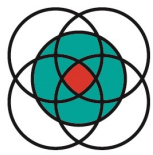
“Heat stroke is an emergency,” emphasizes Dr. Waters. “It can become deadly very quickly. Heat stroke isn’t something you can just push through, no matter how strong you are. The most important thing you can do is pay attention to the warning signs and listen to your body.”

Tips to avoid heat illness in the future

Heat exhaustion and heat stroke are no joke. But even when it’s sweltering outside, there are ways to stay safe:

- **Drink up:** Dehydration increases the risk of heat-related illness, so drink plenty of water as temperatures increase.
- **Take five:** Most cases of heat exhaustion and heat stroke occur when people are exercising or working outside in hot conditions. If possible, avoid intense exercise and long stretches of activity on steamy days. “Pay attention to the weather. If it’s hot, sunny or humid, take frequent breaks,” advises Dr. Waters.
- **Chill out:** If you notice signs of heat exhaustion, get to a cool area ASAP. “Ideally, get into the air conditioning, but at least into the shade,” he adds.
- **Pay attention:** “It’s important for parents, coaches, school staff and others to pay attention to what’s going on around them,” Dr. Waters states. People don’t always recognize the signs of heat illness in themselves. So, if you notice symptoms in others, help them get to a cool, shady place. If symptoms get worse, seek medical attention.

“Heatstroke is preventable, as long as you make the right moves,” says Dr. Waters.



Purdue Extension

FoodLink



Stuffed Summer Squash

Vegetarian

Recipe adapted from the *What's Cooking? USDA Mixing Bowl* website (<https://www.whatscooking.fns.usda.gov/>) and Connecticut Food Policy Council's *Farm Fresh Summertime Recipes* (<http://www.ct.gov/doag/site/default.asp>).

Prep
20 min

Cook
50 min

Total Time
1 hr 10 min

Servings: 4

Ingredients

- 2 large summer squash
- 3 cups cooked brown rice
- 1 cup tomatoes ([diced \(https://www.youtube.com/watch?v=9etWL1LuJOo\)](https://www.youtube.com/watch?v=9etWL1LuJOo))
- 1 cup white beans (drained and rinsed)
- 1 tablespoon fresh basil
- 4 tablespoons Parmesan cheese

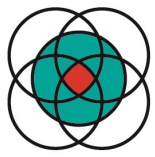
Directions

1. Heat oven to 350°F.
2. In a large skillet, add enough water to just cover the bottom. Bring to a boil, then reduce to a simmer.
3. Wash squash and [cut in half lengthwise \(https://www.youtube.com/watch?v=k7EqDmPxWQ0\)](https://www.youtube.com/watch?v=k7EqDmPxWQ0). Remove the large seeds.
4. Place the squash into the skillet skin side down. Cover to steam the squash until they are slightly tender (but not mushy).
5. Remove the squash from the skillet, and use a spoon to scoop out a good amount of pulp (1 cup). Keep the squash shells.
6. Place the squash pulp in a large bowl. Mix with brown rice, tomatoes, white beans, and fresh basil to make the stuffing mixture.
7. Place the squash shells in a baking dish. Stuff the squash with the stuffing mixture. Top with grated Parmesan cheese.
8. Bake for 30 minutes.

Nutrition Information

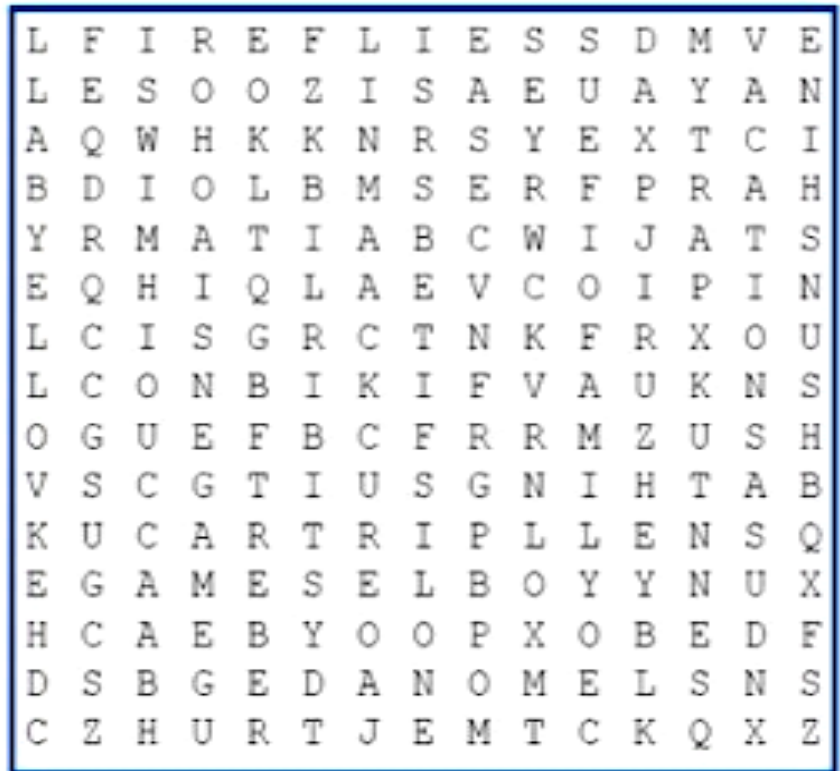
Serving Size ¼ of recipe

Nutrients	Amount
Total Calories	267
Protein	12g
Carbohydrates	49g
Dietary Fiber	7g
Total Fat	3g
Saturated Fat	1g
Sodium	192 mg



Summer Fun Word Search

BARBECUE	LEMONADE
BATHINGSUIT	PARTY
BEACH BOAT	PICNIC
CAR TRIP	POOL
CHALK	SUNGLASSES
FAMILY	SUNSHINE
FIREFLIES	SWIM
FIREWORKS	TOWEL
FRIENDS	VACATION
FUN	VOLLEYBALL
GAMES	ZOO
ICE CREAM	



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We also have a Thrive Alliance Caregiver Resources Facebook group. Email me if you would like to be a part of the group.

