



# Environmental Health & Heat Overview

*June 18, 2024*

1. What is heat illness and why is it a problem?
2. Who is most affected?
3. The County's response
4. Tools and resources

# Heat illness

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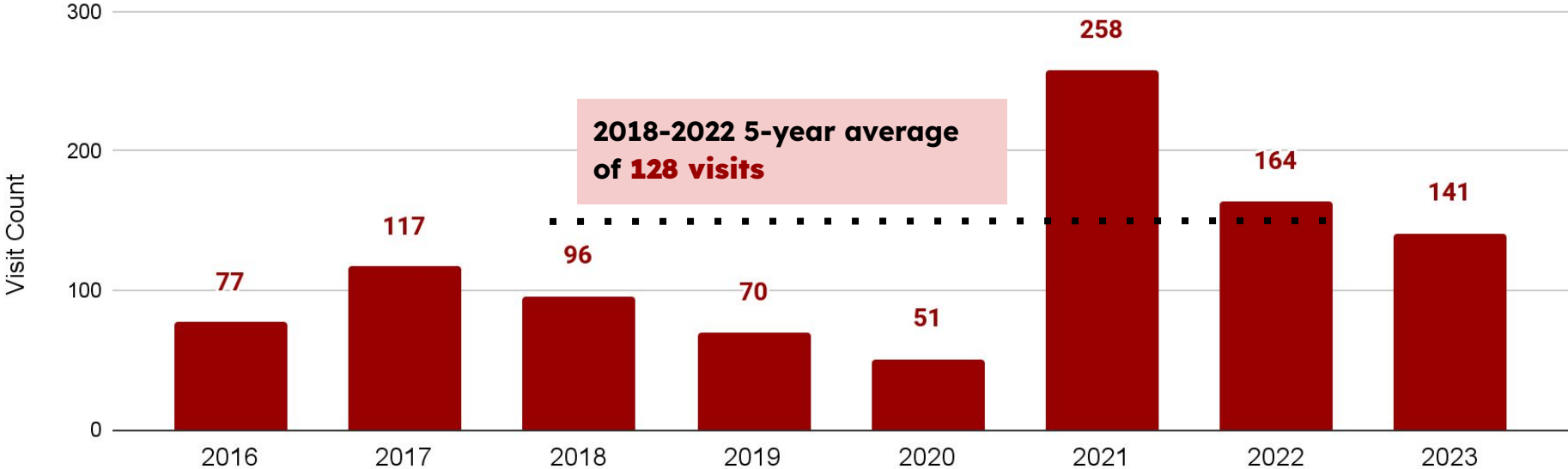
- **Heat exhaustion:** heavy sweating, fast, weak pulse, tired/weakness, dizziness, headache, nausea, fainting
- **Heat stroke:** body temp 103F+, dizziness, nausea, headache, confusion, loss of consciousness - **call 911**
- Symptoms may appear similar to intoxication
- It's preventable!



# Heat-Related Illness in Summer 2023

## Heat-Related Illness Visits

May-September 2016-2023, Multnomah County, ESSENCE



A close-up, profile view of an elderly man with white hair, wearing a blue and white striped shirt, drinking water from a clear glass. The background is a soft-focus green, suggesting an outdoor setting. The image is overlaid with a semi-transparent dark grey layer containing text.

**Fact or Myth?**

**With older age, our thirst response becomes weaker.**

## **Fact!**

As we age our thirst response becomes weaker and our kidney function declines. This increases the risk of dehydration.

**Fact or Myth?**

**Only older people are at risk from indoor heat.**



## **Myth!**

All people are at risk, especially early in the season before we have had a chance to acclimate to warm weather (that takes 2 weeks!).

People at highest risk include people over 65, infants, people with chronic conditions, pregnant people, and people living or working outdoors.





**Fact or Myth?**

**Being from a hot climate means you are used to heat and therefore not at risk.**

## **Myth!**

Nobody is immune to the risks from extreme heat events. Some people may become more adapted the heat by the end of summer, but that can vary by age and medical condition. Acclimatization might not be enough to cope with extreme heat.

# Risk factors

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- Exposure
- Adaptive capacity
- Biological factors
  - Young children and older adults
  - Athletes
  - Outdoor workers
  - People living alone
  - Chronic conditions
  - Pregnant people
  - Unhoused

# Impacts of the 2021 Heat Dome

- Males — **67%** of deaths, **60%** of ED visits
- Non-Hispanic whites — **82%** of deaths, **71%** of ED visits
- Adults aged 60+ — **78%** of deaths, **42%** of ED visits
- People living alone — **71%** of deaths
- People living in multifamily buildings — **58%** of deaths
- People experiencing homelessness — **6%** of deaths, **10%** of ED visits
- People living in warmer areas of the County — **58%** of deaths

## Fact or Myth?

**The longer the heat event,  
the more dangerous to human health.**



## **Fact!**

Heat events become more dangerous the longer they last, especially when temperatures do not drop enough at night.

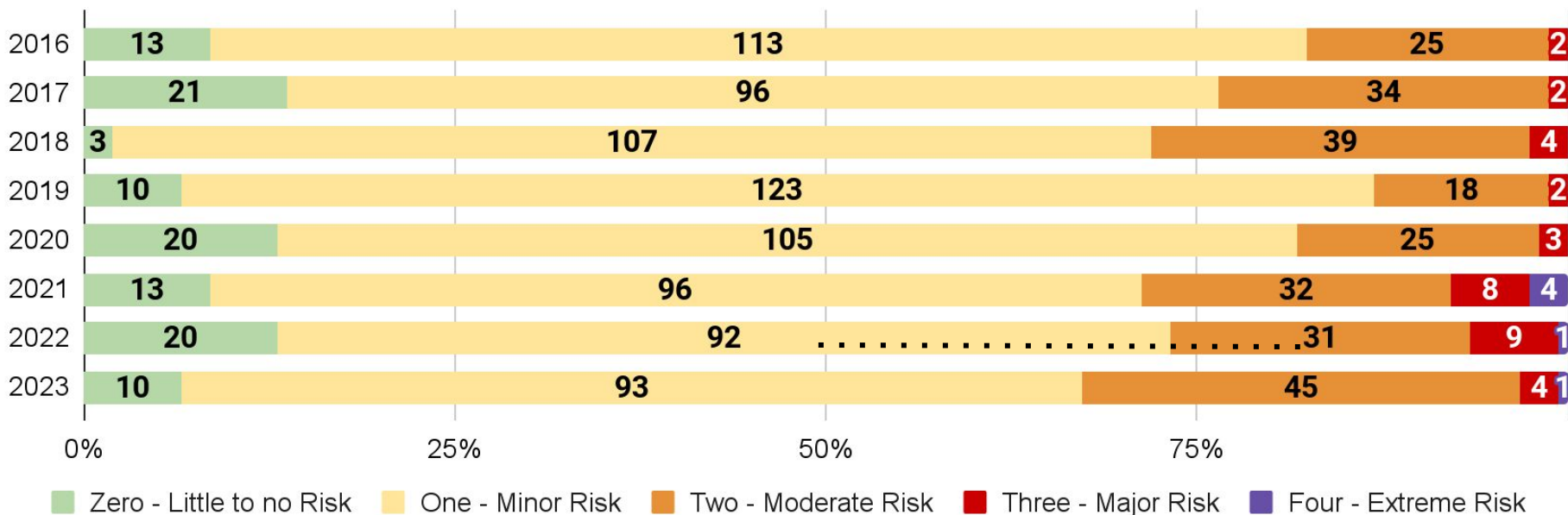
# Heat Risk

<b>0 Green Little/No Risk</b>	<b>1 Yellow Minor Risk</b>	<b>2 Orange Moderate Risk</b>	<b>3 Red Major Risk</b>	<b>4 Purple Extreme Risk</b>
<p>Little to no risk from expected heat.</p>	<p>Affects primarily those extremely sensitive to heat. In particular when they are outdoors without effective cooling and/or adequate hydration.</p>	<p>Affects most who are sensitive to heat. Especially those without effective cooling and/or adequate hydration.</p>	<p>Affects everyone who does not have effective cooling and/or adequate hydration.</p>	<p>This level affects anyone without effective cooling and/or adequate hydration. It is caused by a rare and/or long duration heat with little to no overnight relief.</p>

# Heat Risk in Summer 2023

## Count of Days by Heat Risk

May - September 2016-2023, PDX International Airport, NWS





## Fact or Myth?

**The longer the heat event,  
the more dangerous to human health.**



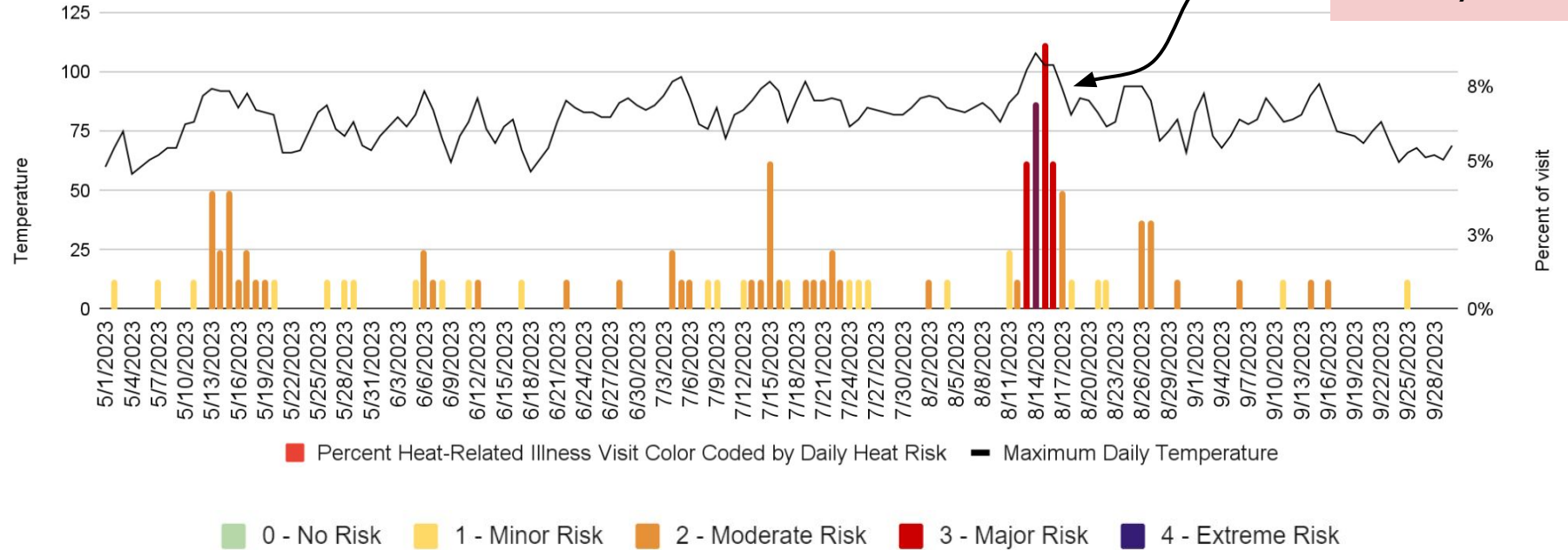
## **Fact!**

Heat events become more dangerous the longer they last, especially when temperatures do not drop enough at night.

# Heat-Related Illness by Heat Risk

## Daily Heat-Related Illness Visits as Percent of Season Heat-Related Illness Visits Total

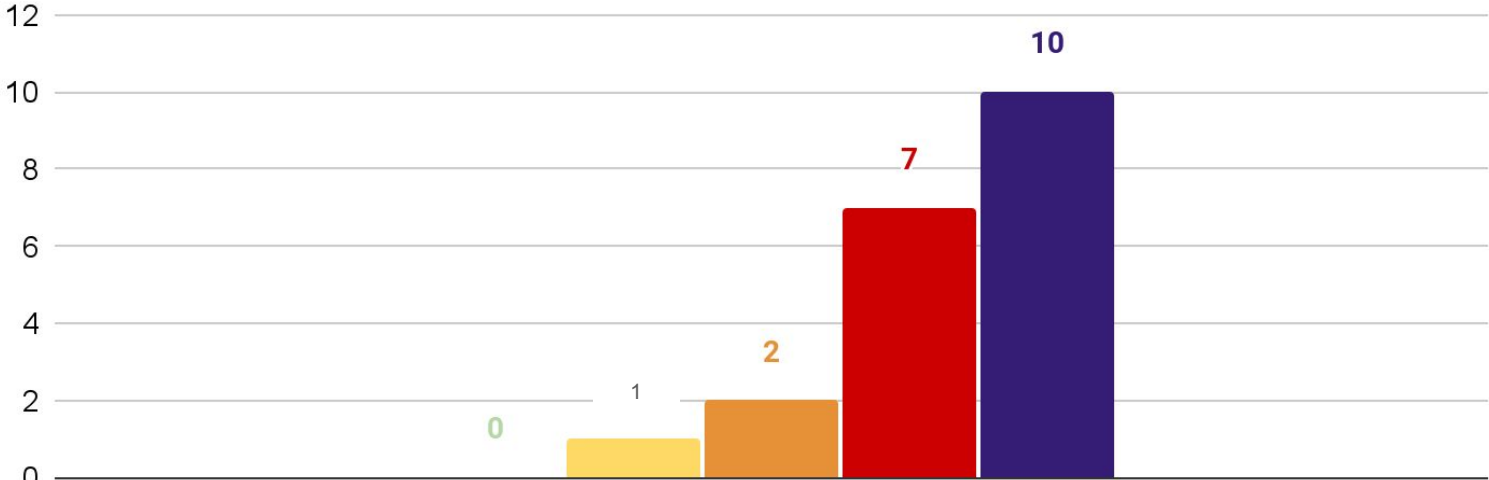
May-September 2023, Multnomah County ESSENCE, NWS



# Heat-Related Illness by Heat Risk

## Daily Average Heat-Related Illness Visits by Heat Risk Index

May - September 2023, Multnomah County ESSENCE, NWS



Average Daily Visit Count by Daily Heat Risk Index

0 - No Risk    1 - Minor Risk    2 - Moderate Risk    3 - Major Risk    4 - Extreme Risk

# Heat Risk

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## NWS HeatRisk Prototype

Identifying Potential Heat Risks in the Seven Day Forecast

Map

Overview

What's in HeatRisk?

Understanding HeatRisk

CDC-NWS Collaboration

Verification

Looking for Resources?

Tue 6/18	Wed 6/19	Thu 6/20	Fri 6/21	Sat 6/22	Sun 6/23	Mon 6/24
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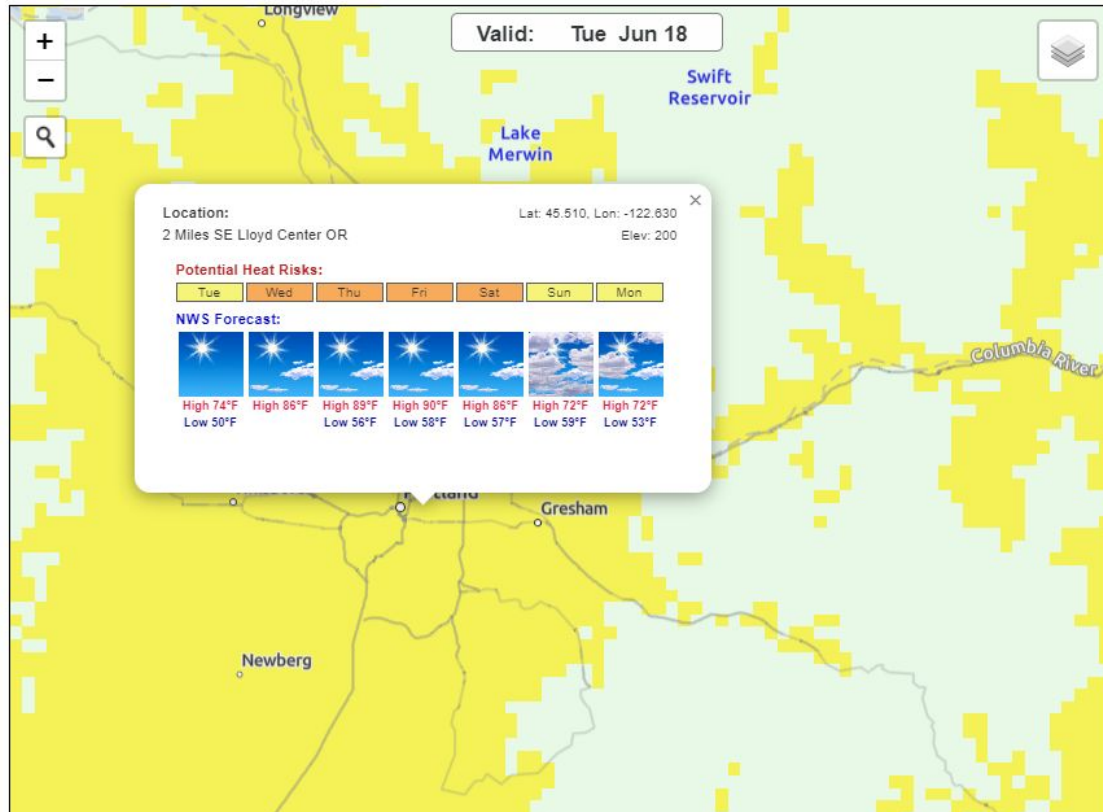
Click map for potential heat risks and NWS forecast for a location.

The NWS HeatRisk Prototype is a color-numeric-based index that provides a forecast risk of heat-related impacts to occur over a 24-hour period. HeatRisk takes into consideration:

- How unusual the heat is for the time of the year
- The duration of the heat including both daytime and nighttime temperatures
- If those temperatures pose an elevated risk of heat-related impacts based on data from the CDC

This index is supplementary to official NWS heat products and is meant to provide risk guidance for those decision makers and heat-sensitive populations who need to take actions at levels that may be below current NWS heat product levels.

Category	Risk of Heat-Related Impacts
Green 0	Little to no risk from expected heat.
Yellow 1	Minor - This level of heat affects primarily those individuals extremely sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration.
Orange 2	Moderate - This level of heat affects most individuals sensitive to heat, especially those without effective cooling and/or adequate hydration. Impacts possible in some health systems and in heat-sensitive industries.



# Help for When It's Hot

## Menu

Updated: 8:20 a.m., Friday, May 10, 2024

**Cooling centers are not open at this time. Check here for the latest updates on cooling centers and other resources to stay safe on hot days.**

Multnomah County is currently preparing for our region's first hot weather of the season, with forecasts showing temperatures that could reach up to 90 degrees on Friday, May 10 and Saturday, May 11.

Our bodies take time to adjust to hotter weather, so early-season heat can put us at higher risk of heat illness. That's why the County is advising people to take care when working or playing outside in the midday heat. Remember to **drink more water and take cooling breaks**. Even a few minutes of cooling can help prevent heat illness.


If you need a place to cool off, [check our interactive map](#)  of library branches, community centers and interactive fountains, and make a plan to get cool during hot afternoons. Always [confirm hours and locations of libraries](#)  before you go. Remember that several libraries are closed for construction.

Learn about [the symptoms of heat illness](#) and [how to take care of yourself and others during hot weather](#).

## Get ready for summer weather

Now's a good time to prepare yourself and your home for summer. Stock up on fans/air conditioners and sun-blocking curtains, sunscreen and other summer essentials. Now is also a time to make a plan for [pets](#), older adults, [kids](#) and those with medical conditions, all of whom are more vulnerable to heat illness.

**Watch:** [How to prepare for the heat before temperatures soar](#)  and [Cómo preparase para el calor](#) 

If you need financial assistance to obtain an air conditioning unit or to pay an electric bill, call 211 or visit [this webpage](#) .

## Stay safe while swimming



### Heat Illness and First Aid

Know the symptoms of heat-related illnesses and how to respond

Page



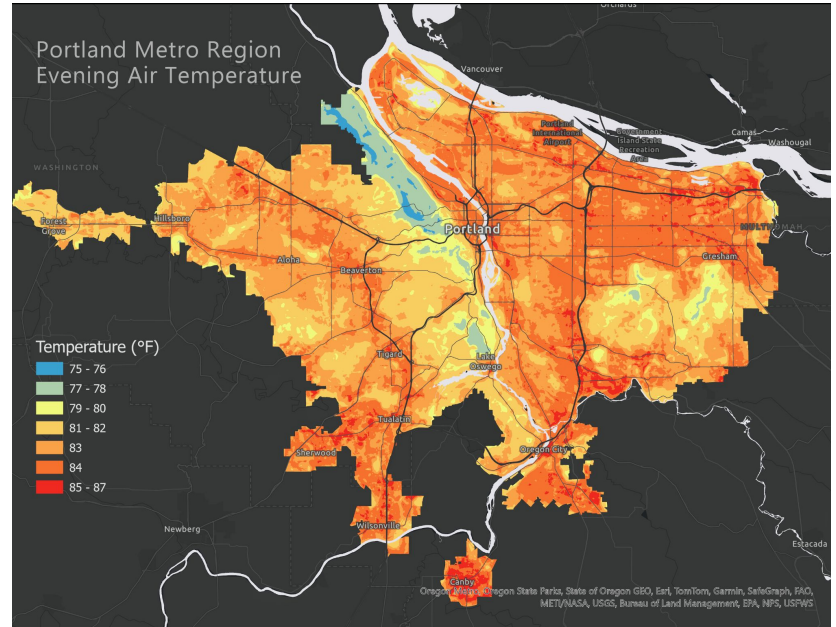
### Heatwave Newsroom

Multnomah County's Office of Communications, in partnership with area agencies, coordinates media requests during hot weather events.

Page

# Changes in 2024

- Updated Heat Vulnerability Index
- Clinical guidance
- Updated Regional Climate and Health Monitoring Report
- Cooling/filtration Resource Library (OHP additions)



*Photo: Portland Metro Heat Mapping Campaign, 2023*





**Fact or Myth?**

**Fans can help cool the body.**



## Fact!

As long as the air temperature is lower than skin temperature, fans improve heat loss by evaporation of sweat. At 81F, using a fan will make it feel like 77F.

In very hot and dry situations above 104F, using a fan is extremely dangerous; it moves hot air around instead of cooling you off.

# Tools and resources

## Key requirements: Oregon OSHA's permanent rules for heat illness prevention

On May 9, 2022, Oregon adopted two permanent rules – 437-002-0156 and 437-004-1131 – following direction from Oregon Gov. Kate Brown to protect workers from heat-related illnesses.

The rules' key requirements are identical and apply to any workplace where extreme heat caused by weather can expose workers to heat-related illnesses – medical conditions resulting from the body's inability to cope with a particular heat load; 437-004-1131 applies to agricultural workplaces and 437-002-0156 applies to all other workplaces. The rules do not apply to buildings and structures that have mechanical ventilation that keep the indoor heat index less than 80 degrees Fahrenheit.

The key requirements are based on a set of numbers called the heat index – sometimes called the apparent temperature – published by the National Oceanic and Atmospheric Administration's National Weather Service. There is a direct relationship between air temperature and relative humidity; the heat index indicates what the temperature feels like to the human body when relative humidity and the air temperature are combined.

Oregon OSHA's rules for preventing heat illnesses



## Oregon OSHA:

Worker protections kick in at 80F, with additional requirements at 90F

## Tenants Have the Right to Install Portable Cooling Devices

Under [Senate Bill 1536](#) (2022 Regular Session), the Oregon Health Authority (OHA) is providing freestanding portable cooling devices to OHA clients through Oregon's new Air Conditioner Deployment Program.

SB 1536 also protects tenants' rights to install and use these devices as summarized below.

### What devices may tenants install?

Under this law, "portable cooling devices" include air conditioners and evaporative coolers.

### How may tenants install the device?

Tenants can mount the device in a window or place the device on the floor, as long as it does not damage the dwelling unit or building when installed. The devices OHA provides are only for placing on the floor.

### What uses are not protected under SB 1536?

A landlord **may only prohibit or restrict** a tenant from installing or using a portable cooling device if installation or use of the device would:

- Violate building codes or state or federal law;
- Violate the device manufacturer's written safety guidelines for the device;
- Damage the premises or render the premises uninhabitable;
- Require more amperage to power the device than power service to the building, dwelling unit or circuit can accommodate; or
- For window-mounted devices:
  - Block a window that serves as the necessary egress from the dwelling unit;
  - Interfere with the tenant's ability to lock a window that is accessible from outside;
  - Damage or void the warranty of the window or frame, puncture the envelope of the building, or otherwise cause significant damages due to the use of brackets or other hardware required to securely fix the device;
  - Damage the dwelling unit or building because the device cannot be adequately drained; or
  - Risk the device falling.

HB1536 (2022) established a right to cooling and requires that new construction permitted after April 1, 2024 includes a space that can be kept at 80F.

## Climate Resources for OHP Members

*Information about climate-related supports for people on the Oregon Health Plan*

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Starting March 1, 2024, Oregon Health Plan (OHP) members will have a new way to apply for climate-related resources, through a climate benefit called health-related social needs (HRSN) services.

### ■ What kinds of HRSN climate resources will be available?

Eligible OHP members can get devices that help keep healthy temperatures and clean air, including air conditioners, heaters, air filtration devices and mini refrigeration units for medications. Devices like portable power supplies to operate medical equipment like ventilators for power outages caused by climate events are also available.



Starting in March 2024, Medicaid provides AC and air filtration in Oregon.

## Portland is trying to make it easier for qualified people to get free air conditioners



By Monica Samayoa (OPB)

June 13, 2024 3:32 p.m.

**The PDX 311 phone line is staffed seven days a week from 7 a.m. to 8 p.m. People can also apply online**

Portland's climate action fund is expanding outreach for its free air-conditioning program ahead of a potentially hot summer. People can now apply by calling 311, or by filling out [an online form](#).

The Portland Clean Energy Fund's [Cooling Portland](#) program offers a free portable air conditioning unit to city residents with lower incomes.

The program's inception came right after the deadly 2021 heat dome, when nearly [100 people died of heat-related stress](#) throughout the state. Many of those deaths occurred in Multnomah County, where temperatures reached 116 F. Most were found home alone with no air-conditioning units.

Now, the Portland Clean Energy Fund is partnering with PDX 311 to help interested Portlanders learn more about the program and help residents apply. PDX 311 is a city program aimed at simplifying access to local government programs, including Cooling Portland.

Portlanders can call 311 to get a free air conditioner.

A woman with her hair in a ponytail, wearing a red and white plaid shirt, is adjusting grey horizontal blinds in a kitchen. She is looking out the window. The kitchen has blue cabinets and a countertop with various items. The scene is dimly lit, suggesting it might be evening or the blinds are closed.

**Fact or Myth?**

**It's best to stay indoors during periods of extreme heat.**



## **Myth!**

We usually advise staying indoors during a heat event, but indoor temperatures may be higher than outdoor temperatures, especially where there is no AC.


PGE

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## Income-Qualified Bill Discount

Energy is essential. It's something we all need and we know times can get tough. With our Income-Qualified Bill Discount program, you can get a monthly discount of up to 60% off your energy use. **Find out if you qualify** and apply today – it's super easy.



Home > Income-Qualified Bill Disco...

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- فارسی
- 日本語
- 한국어
- Ruáinga
- Română
- русский
- Af Soomaali
- Kiswahili
- Tiếng Việt

Utilities are not allowed to shut off power during a heat wave.

New low income assistance programs are available from PGE and Pacific Power.

## Thinking of opening your space as a cooling location?

### Menu

Community-based organizations may be interested to open their facility as a cooling location, center, or shelter for people during extreme heat. Here is what you need to know:

- **Cooling Location:** An air-conditioned location open to the public with water often available. These spaces are open during the hottest part of the day only and do not operate for 24 hours. Community partners, such as houses of worship, may operate Cooling Locations.
- **Cooling Center:** A location with air conditioning, cooling resources, water, food, and support services. These locations operate during the hottest part of the day only.
- **Cooling Shelter:** A location with air conditioning, cooling resources, water, food, and support services. These locations are similar to Cooling Centers, but operate for 24-hours.

The County [follows guidance set by the National Weather Service](#) when deciding when to issue health warnings and open cooling spaces. We take into consideration not only how hot it gets during the day, but whether the nights cool down, how many hot days we expect in a row and whether it's earlier or later in the summer season.

During most hot days, agencies will promote cool spaces such as libraries and city pools. But there are times when agencies will decide to open cooling centers. One difference is that cooling centers offer snacks or a meal.

### Before you decide

Organizations weighing this decision should consult [CDC guidance on cooling centers and COVID-19](#) prior to opening a cooling space.

Opening a cooling space, center or shelter takes a lot of coordination. Before you decide, find out if someone has already opened a cooling location near you. Visit the [interactive map of cool spaces](#), or call 2-1-1 to help determine if your location is needed.

If you find that there is already a cool location near you, consider spreading the word to promote it among people who might need that service, or volunteer to help. Also consider becoming a volunteer driver for [Ride Connection](#), or at a Disaster Resource Center for Multnomah County. Opportunities to volunteer will be posted on [multco.us/hot](#)



### Thinking of Offering a Misting Station?

Opening a misting station takes some coordination. Before you decide check out this how-to guide

Page



### When do we open cooling centers or shelters?

When high temperatures are forecast for a string of days with little overnight relief, Multnomah County and partners stand up formal locations for people to

Find tips for opening your own cooling center at [Multco.us/hot](#)

# 2024 Heat Vulnerability Index

Heat Vulnerability

Sensitivity ▾

Exposure ▾

Adaptive Capacity ▾

## Census Tract 14

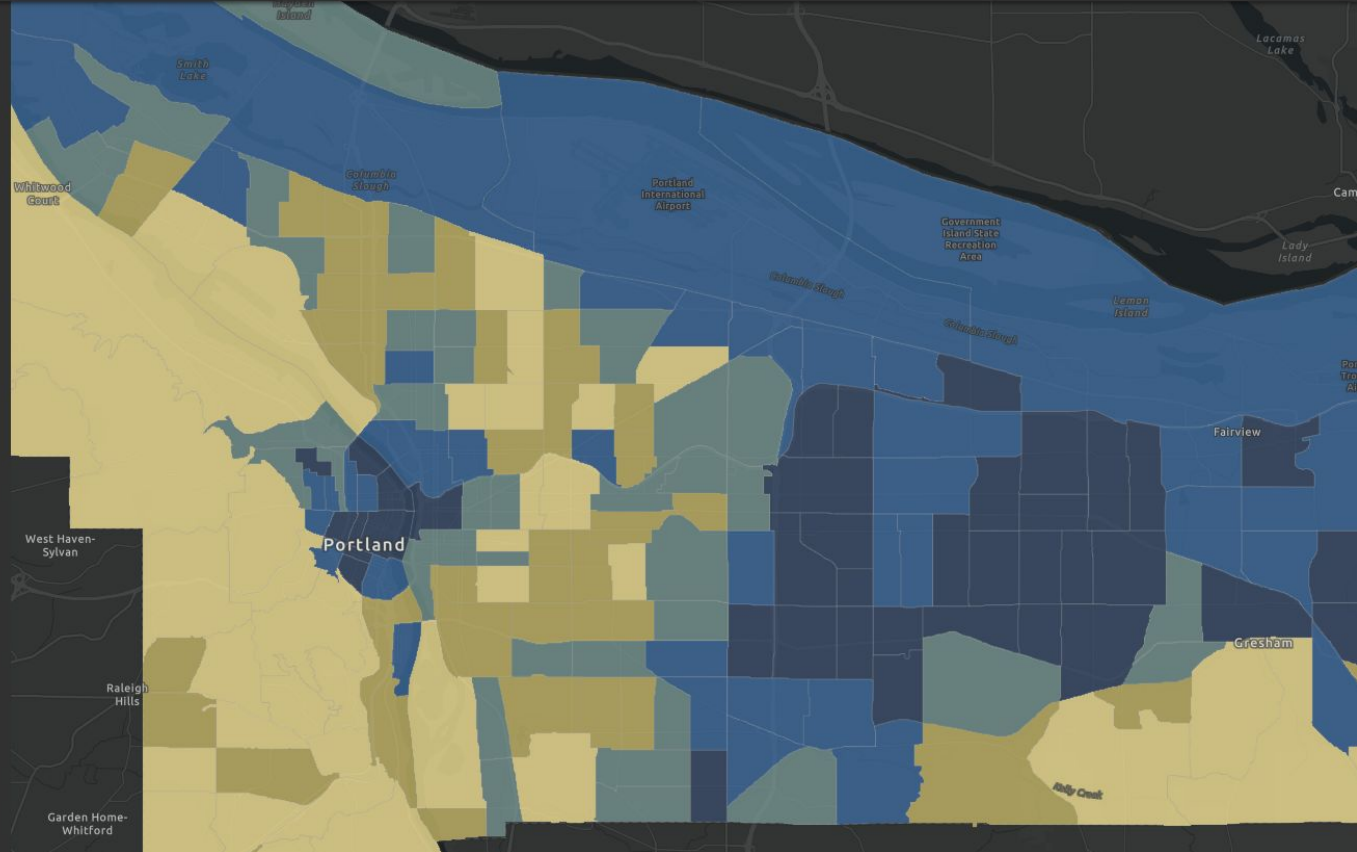
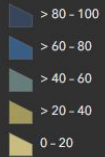
Heat Vulnerability Rank 31%

Sensitivity: 14%

Exposure: 87%

Adaptive Capacity: 16%

### Heat Vulnerability (Ranked Percentiles)



## COUNTY USE -Living document

Maintained by Environmental Health Services contact [daniel.trifone@multco.us](mailto:daniel.trifone@multco.us) for updates

Last Updated: April 19th, 2024

### Cooling and Air Filtration Resource Library

*This document presents resources and guidance, when available, for Multnomah County staff in referring clients or community members to cooling and filtration resources during extreme heat and poor air quality events. It's important to note that eligibility requirements may vary for each of the programs and resources listed below, and some may have limited funding or availability.*

<b>Appliance Resource List</b> .....	1
Portland Clean Energy Fund.....	1
Local Community Programs and Resources.....	3
Multnomah County Programs.....	4
<b>State-wide Resources</b> .....	4
<b>Community Appliance Funding Mechanisms</b> .....	5
<b>Oregon Cash Incentives &amp; Financing for Households</b> .....	5
<b>Tax Credit Resources</b> .....	6
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<b>Weatherization</b> .....	7
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<b>Expired Programs</b> .....	9

211info is a nonprofit organization that connects people with information about health and social services in their area. They may be able to provide information about other organizations and programs that provide assistance with obtaining air conditioners. To learn more, visit their website at <https://211info.org/> or call 211.

#### Appliance Resource List

##### **Portland Clean Energy Fund**

**Cooling Portland (formally The Heat Response Program)**

Units: Heat pump/cooling units (4000 this year)

Availability: Implementation taking place over a period of up to 5 years to distribute up to 15,000

Multnomah County maintains a library of cooling resources.

# Reach out!

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- **Brendon Haggerty**, Healthy Homes and Communities Manager

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