

# Occupational Heat Exposure

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June 2023

# Housekeeping



Muster Point

# Presenter & Introductions



**Safety begins with me!**



A top-down view of numerous keys of different shapes, sizes, and materials (brass, silver, metal) scattered across a dark, textured wooden surface. The keys are arranged in a way that suggests a search or selection process. A black rectangular box is positioned in the upper left corner, containing the text 'Why am I here?'.

Why am I here?

**You are the KEY to SAFETY!**



# Our Bodies & Heat



# What is Heat Illness?





# In the United States...

**702**

An average of **702** heat-related deaths occur each year.



**67,512**

Each year, there are **67,512** emergency department visits due to heat, on average.

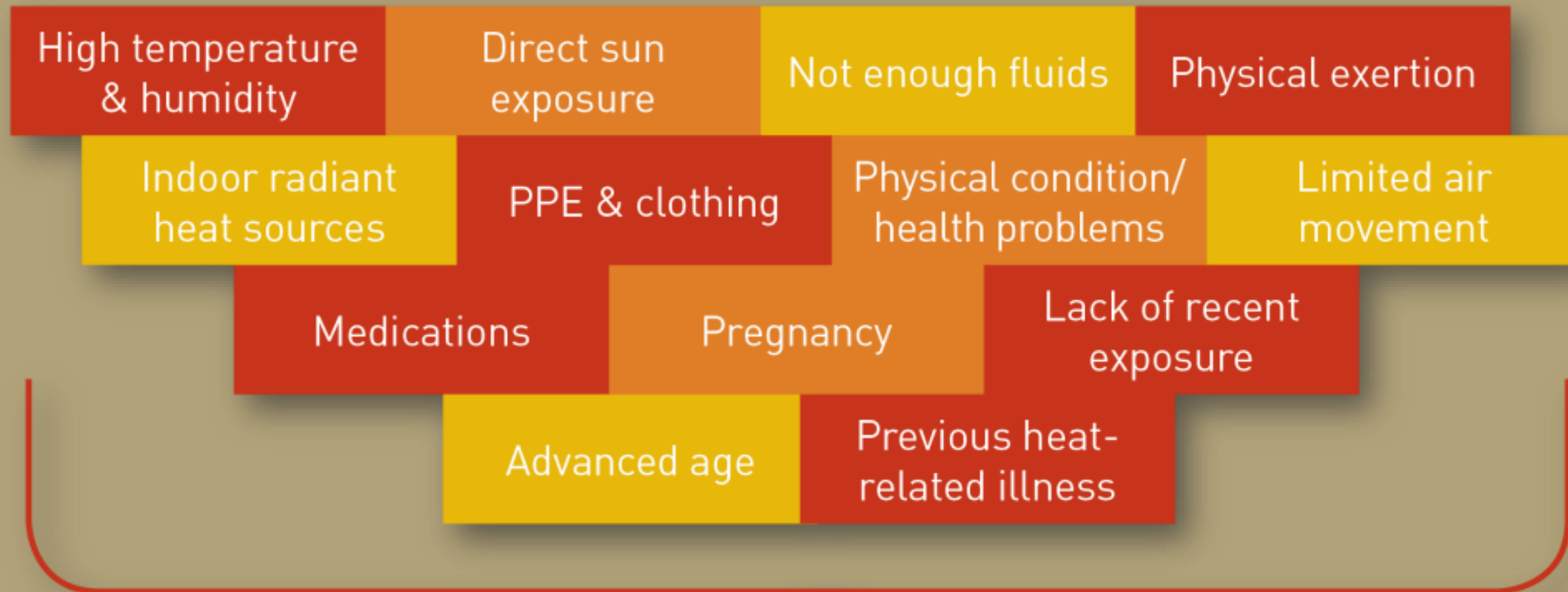


**9,235**

Each year, an average of **9,235** people are hospitalized due to heat.



# Factors that Increase Risk of Heat Illness





# Heat Index

## NWS Heat Index

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										



Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution

Extreme Caution

Danger

Extreme Danger

# Signs and Symptoms of Heat Illness

Heat Cramps

Fainting

Heat Rash





# Dehydration





# The Effects of Fluid Loss On Performance



2% - Impaired Performance

4% - Capacity for muscular work declines

6% - Heat Exhaustion

8% - Hallucination

10% - Circulatory collapse and heat stroke



# Dehydration - Video



# Electrolytes





# Heat Exhaustion



# Heat Exhaustion First Aid

Move victim to a cool place and elevate their feet.

Keep victim lying down with legs straight and elevated 8-12 inches.

Cool the victim by applying cold packs or wet towels or cloths. Fan the victim.

Give the victim cold water if he or she is fully conscious.

If no improvement is noted in 30 minutes, seek medical attention.





# Heat Stroke





# Heat Stroke First Aid





# Heat Illness Prevention





# Toolbox Talk on Heat Stress Safety - Video





# NIOSH Heat Safety Tool iPhone & Android App

- [NIOSH Heat Safety Tool iPhone & Android App](#)



One Team

**QUESTIONS?**

