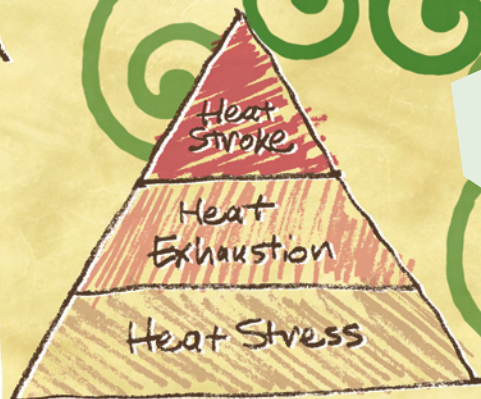


Severity of
Heat-related Illness



PIONEER
A DUPONT BUSINESS

Understand the Warning Signs

At PIONEER Hi-BRED, we believe strongly in providing a safe working environment for our employees. Because much of our work occurs outside on hot, humid days, this brochure will help you understand the heat index, as well as signs of heat stress, heat exhaustion, and heat stroke.

Don't overdo it!

Heat Index

It is very important to take precautions to prevent possible cases of heat stress. Drinking plenty of fluids on a regular basis (water,

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

WITH PROLONGED EXPOSURE AND/OR PHYSICAL ACTIVITY —

Caution: Fatigue possible

Extreme Caution: Sunstroke, muscle cramps, and/or heat exhaustion possible

Danger: Sunstroke, muscle cramps, and/or heat exhaustion likely

Extreme Danger: Heat Stroke or Sunstroke likely

Gatorade*, Powerade*, etc.) helps prevent possible cases of heat-related illnesses. Drinking carbonated beverages (Coke*, Pepsi*, etc.) can increase dehydration and give a false sense of being properly hydrated. Eating a good breakfast and food throughout the day is also critical.

The heat index is the temperature the body feels when heat and humidity are combined. For example, if the temperature is 90 degrees and the humidity is 60 percent, it feels like 100 degrees. If the temperature rises to 92 degrees with a humidity level of 70 percent, it feels like 112 degrees. Plan any outdoor activity with the weather forecast in mind!

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HEAT-RELATED ILLNESSES

fields
of green

HEAT-RELATED ILLNESSES

Avoid problems: Just eat a good breakfast and drink plenty of fluids when you work.

Early Heat Stress

DESCRIPTION: The body's internal air conditioning system is becoming overworked.

SIGNS AND SYMPTOMS

- Mild dizziness, fatigue or irritability; decreased concentration; impaired judgment; sweating; cramps in arms, legs, or stomach

CAUSE AND PROBLEM

- Reduced flow of blood to the brain
- May lead to heat exhaustion or heat stroke

TREATMENT

- Loosen or remove clothing
- Rest in shade for 30 minutes or more
- Drink water

Heat Exhaustion

DESCRIPTION: The body's internal air conditioning system is overworked but not completely shut down. Surface blood vessels and capillaries collapse from loss of body fluids and necessary minerals.

SIGNS AND SYMPTOMS

- Fatigue, headache, dizziness, muscle weakness, loss of coordination, fainting, collapse
- Profuse sweating; pale, moist, cool skin; excessive thirst, dry mouth
- Fast pulse, if conscious
- Low or normal oral temperature
- Cramps, nausea, urge to defecate, rapid breathing, chills, tingling of hands/feet, confusion, giddiness, slurred speech, irritability

CAUSE AND PROBLEM

- Dehydration, lack of adjustment to heat; reduction of blood in circulation, strain on circulatory system, reduced flow of blood to the brain
- May lead to heat stroke

TREATMENT

- Move to cooler, shaded area as quickly as possible
- Rest (lying down)
- If conscious, have person drink as much water as possible
- Do not give salt
- If unconscious or if heat stroke is also suspected, treat for heat stroke until proven otherwise
- Loosen or remove clothing
- Splash cold water on body
- Massage legs and arms
- If person collapses, get evaluation by a physician or nurse immediately. Shower him/her in cold water

CAUSE AND PROBLEM

- Sustained exertion in heat, lack of adjustment to heat, dehydration, individual risk factors; reduced flow of blood to the brain and other vital organs, body's temperature-regulating system fails; body cannot cool itself
- Risk of damage to vital organs, including the heart, central nervous system, liver and kidney

Heat Stroke

DESCRIPTION: The body has depleted its supply of water and salt and temperature rises to deadly levels. Immediate treatment is required, as this is a life-threatening medical emergency!

SIGNS AND SYMPTOMS

- Often occurs suddenly; headache, dizziness, confusion, irrational behavior, coma
- Sweating may slow down or stop
- Fast pulse, if conscious
- Rapid breathing
- May have convulsions, nausea, unrecognizable speech, very aggressive behavior

TREATMENT

- Move to a shaded area
- Remove outer clothing and shoes. Wrap in a wet sheet, pour water on the person and fan vigorously (avoid over-cooling; don't use ice)
- Treat shock if present, once temperature is lowered
- If person vomits, make sure mouth is clear to prevent choking
- Transport to nearest medical treatment facility immediately
- While awaiting or during transport, elevate legs, continue pouring water on the person and fanning him/her
- If conscious, have person drink as much water as possible
- Do not give salt