SAFETY CONCERNS

- Physical
- Psychological
- Environmental
- Biological

Physical Constraint

- Restricts movement
  - Limits mobility
  - Increased energy/fatigue
- Reduced dexterity
- Reduced sensory perception
  - Vision
  - Hearing
  - Communication

Other Physical Concerns

- Physiological factors
  - Allergic reactions
  - Physical condition
  - Level of acclimation
- Psychological stress
  - Confining
  - Claustrophobic

Environmental Concerns

- Site conditions
  - Hot, cold
  - Rain and mud
  - Ice and snow
  - Uneven surfaces
- Slips, trips, falls

Heat Stress

- Common
- Contributing factors
  - High temperatures, humidity
  - Direct sun exposure
  - Limited air movement
  - Poor physical condition, low heat tolerance
  - Fatigue, exertion
Heat-Related Illness

<table>
<thead>
<tr>
<th>Illness</th>
<th>Symptoms</th>
<th>First Aid/Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Cramps</td>
<td>Muscle spasms, pain in legs, arms, abdomen</td>
<td>Rest, drink cool fluids, seek medical attention</td>
</tr>
<tr>
<td>Heat Stress</td>
<td>Thirst, fatigue, feeling “hot”, cramps, dizziness, headache, nausea, sweating, palpitations, clammy skin</td>
<td>Treat immediately, rest in shade, rehydrate, seek medical attention if symptoms persist</td>
</tr>
<tr>
<td>Heat Exhaustion</td>
<td>Sweating, paleness, muscle cramps, fatigue, weakness, headache, dizziness, irritability, confusion, nausea, fast/weak pulse, shallow breathing</td>
<td>Move to cool area, rehydrate, take cool shower/bath, wear lightweight clothing, seek medical attention if symptoms persist</td>
</tr>
<tr>
<td>Heat Stroke</td>
<td>High body temp (104°F+), no sweating, hot, dry skin, confusion, loss of consciousness, weakness, convulsions, rapid pulse, hyperventilation</td>
<td>Life-threatening – call for medical assistance, begin cooling immediately (e.g., put in shade, immerse in water), monitor body temperature, give cool water if able to drink</td>
</tr>
</tbody>
</table>

Cold-Related Illness

- Extended exposure to cold, windy, wet conditions without adequate clothing or coverage
- Hypothermia
  - Body loses more heat than produced
- Frostbite
  - Skin/tissue freezes
  - Hands, feet, nose, ears most vulnerable

Biological Concerns

- Zoonotic diseases
- Integrity of PPE
  - Breakdown of materials
  - Breech of barriers
- Pathogen exposure

SAFETY PRECAUTIONS

- PPE Safety Training
- Buddy System
- Personal Behavior/Actions

PPE Safety Training

- Critical for ensuring appropriate use
  - What PPE is needed
  - Why it is needed
  - Limitations
  - Precautions
  - Consequences
  - Recognize damaged/improperly function
  - Decontamination, repair, replacement

Buddy System

- Cooperative completion of tasks
- Close visual contact
- Assist as needed
- Check PPE integrity
- Observe partner for distress
- Obtain emergency assistance if needed
**Personal Preventive Actions**

- **Remain alert**
  - Watch for hoses, cables, ropes
  - Adequate lighting
  - Identify hazardous areas

- **Monitor yourself and others**
  - Know physical limitations

- **Follow established guidelines**

- **Stress-management techniques**
  - Help stay calm, focused, analytical under adverse conditions

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**Avoiding Heat Stress**

- **Monitor yourself and team members**
  - Be alert for signs of heat stress
  - Take quick action to avoid serious injury

- **Prevention**
  - Keep hydrated
    - Fluids, replace electrolytes
  - Adjust work schedules
    - Perform work during cooler times of day
    - Limit or avoid strenuous activities mid-day
  - Take frequent rest breaks
  - Cooling devices

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**Cold-Related Illnesses**

- **Wear appropriate clothing**

- **Dress in layers**
  - Loose-fitting, lightweight clothing,
  - Water resistant/repellant outer layers

- **Cover hands, head, face, neck**

- **Avoid overexertion**

- **Stay dry**

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**Psychological Stress**

- **Recognize, understand symptoms**

- **Monitor reactions of self, others**

- **Take appropriate measures to reduce effects**

- **Seek assistance or support**

- **Physical, cognitive, emotional, behavioral signs/symptoms**

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**Resources**

- **USDA Foreign Animal Disease Preparedness (FAD PReP) Guidelines:**
  - Health and Safety
  - Personal Protective Equipment


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