

- Before mandated 8-12 hour shifts, workers would avoid the most strenuous activities during the peak heat times of the day
- Personnel does not have the option of idling expensive equipment or delaying production
- You are a "two-fer" accomplishing twice as much in half of the work days





- Working in the offshore or remote setting places workers in a "high-risk" environment
  - Delayed access to definitive medical care

Workers must participate in their own, and their co-worker's safety





### **GUIDELINES - OVERVIEW**

- **❖**DETERMINE RISK
- **\*WHAT TO AVOID**
- **❖PRE-HYDRATE**
- **\*BREAK**
- **\***HYDRATE
- **SYMPTOM RECOGNITION**
- "BUDDY UP"
- **❖**RE-HYDRATE





### **RISK ASSESSMENT**

### Co-morbid illnesses

- Kidney
- Diabetes
- Blood pressure
- Tobacco use / abuse
- Deconditioned / "not in good shape"

- Medications that put personnel at risk
  - Cardiac meds
  - Blood pressure meds
  - Antidepressants / mood disorder
  - Pain medications
  - Sleep medications
  - ADHD medications





### **RISK ASSESSMENT**

# High-Risk Personnel

- Increased muscle mass
- Previous heat-related events
- Persons consuming high amounts of:
  - Caffeine
  - Theobromine
  - Carbonated and high sugar content drinks
  - Energy boost products
- Older workers
- Smokers
- Persons returning from extended breaks or vacations

- High-Risk Times for Heat Injury
  - ❖ 10 a.m. to 3 p.m.
  - Sunrise and sunset (dew points)
  - Absence of breeze or wind
  - High humidity (> 85%)





Consider avoiding these types of beverages, especially for rehydration purposes:

- Caffeinated
- Carbonated
- Sugary

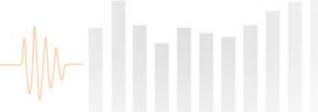




Prior to beginning strenuous work in a hot, and/or humid environment:

- ❖ Drink 16 32 ounces; or
- ❖Drink 500 1000 mL prior to starting any strenuous work activity

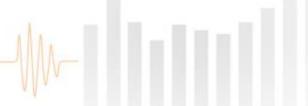




# **\*BREAKS**

- For temperatures over 90 degrees, break every 20 minutes
- Shady or cool areas
- Use break as opportunity to get cool / stay hydrated





### ♦ HYDRATE – at each break

- ❖ Drink 16 32 ounces; or
- ❖ Drink 500 1000 mL of fluid
- ❖ Fluid should be ½ water, ½ electrolyte solutions (Gatorade™)
  - Fluid should be no less than 1/3 electrolyte solution
- Be prepared to replace fluid in extreme environments under heavy work loads at a 2 L per hour rate





### **RECOGNIZE SYMPTOMS**

# You're in trouble (or at risk) if you(r):

- Don't urinate between each meal
- Weight varies more than 1 pound per day
- Get lightheaded going from a stooped or seated position to an upright one
- Urine is dark or significantly decreased in volume
- Have difficulty form spit; have a dry mouth, or tongue is dry/wrinkled
- Have cramping / nausea / vomiting
- Feel as though your muscles won't relax
- Experience irritability or discomfort
- Have unexpected weakness, dizziness, cramps, chills, nausea, and / or vomiting





### **DON'T WAIT TO SEEK ATTENTION**

- ❖ IF YOU EXPERIENCE ANY OF THESE SYMPTOMS:
  - **\*TELL YOUR SUPERVISOR IMMEDIATELY**
  - SEE THE MEDIC (IF THERE'S ONE ON SITE)
- ❖ HEAT INJURIES MAY REQUIRE DAYS TO RECOVER, THE EARLIER THE RECOGNITION, THE SHORTER THE RECOVERY TIME





# ❖ DON'T WORK ALONE IN HIGH-RISK ENVIRONMENTS

- Use co-workers as a "reference point;" You should (be)
  - Sweating if others are
  - Drink and feel thirst when others do
  - Break when others do
  - Need to urinate when others do
  - Notice irritability in yourself or co-workers
  - Notice if you or a co-worker can not keep up with others/peers





# REHYDRATE – following the end of shift / tour

- ❖Replace each pound lost with 24 fluid ounces (750 mL) of electrolyte and water solution in no greater than 1:1 and no less than 3:1 (water:electrolyte) concentration
- Be prepared to replace fluid in extreme environments under heavy work loads at a 2 L per hour rate



