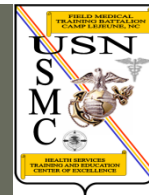




DEHYDRATION



FMST

Dehydration



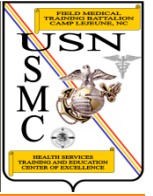
OVERVIEW



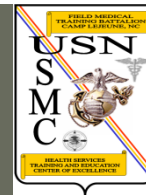
- Predisposing Factors
- Signs and Symptoms
- Treatment
- Preventive Measures
- Hyponatremia



LEARNING OBJECTIVES



Please read your
Terminal Learning Objectives
and
Enabling Learning Objectives

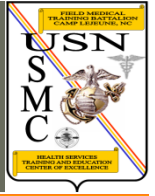


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Dehydration



INTRODUCTION



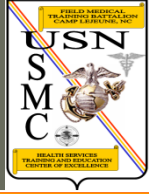
- Water
 - 45 -70% of body weight
 - Used to carry out normal functions
 - Respiration
 - Elimination of waste
 - Lubrication
 - Regulate body temp



INTRODUCTION



- Excessive changes in the normal body water balance alter homeostasis
- Vital organs cannot function properly without the correct amount of water and sodium



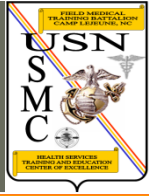
PREDISPOSING FACTORS

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Dehydration



PREDISPOSING FACTORS



- Alcohol consumption
- Medications
- High BMI / Low Fitness Level
- Inadequate diet
- Improper clothing



PREDISPOSING FACTORS

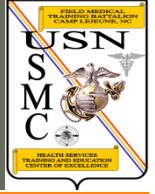


- Medical conditions
- Age
- Fatigue / lack of sleep
- Improper acclimatization



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Dehydration



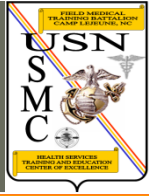
SIGNS AND SYMPTOMS

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Dehydration



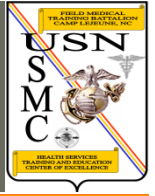
SIGNS AND SYMPTOMS



- Mild to moderate dehydration:
 - Fatigue
 - Headache
 - Decreased heat tolerance
 - Cognitive deterioration
 - Reduction in strength and physical capacity



SIGNS AND SYMPTOMS



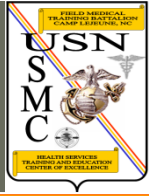
- Other common S/Sx:
 - Less frequent urination/dark color urine
 - Thirst
 - Lightheadedness
 - Dry skin
 - Decreased turgor

SKIN TURGOR

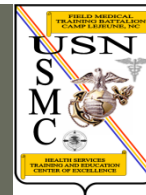




SIGNS AND SYMPTOMS

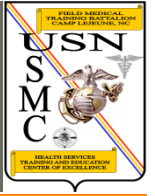


- Other common S/Sx (cont):
 - Dizziness
 - Confusion
 - Dry mouth and mucous membranes
 - Increased heart rate and breathing



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Dehydration



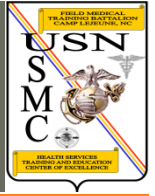
TREATMENT

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Dehydration



TREATMENT



- Identify and treat the cause
- Assess the level of dehydration based on the signs and symptoms
- Re-hydrate:
 - Mild: Oral hydration (If able to tolerate)
 - Moderate and Severe: IV Fluid Replacement
- Do not over hydrate



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Dehydration



PREVENTIVE MEASURES

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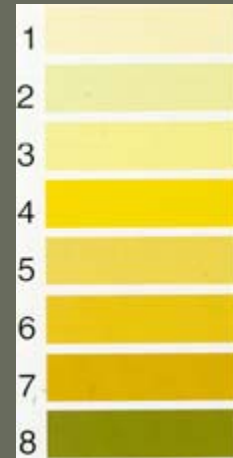
Dehydration



PREVENTIVE MEASURES



- Before activities
 - Drink extra fluids to produce straw colored urine
- During activities
 - Several fluid breaks per hour
 - 1 qt per hour
 - No more than 1.5 liter per hour



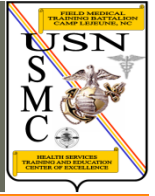
PREVENTIVE MEASURES

- Maintain a balanced diet
 - MRE's are formulated to provide important electrolytes and other nutrients





PREVENTIVE MEASURES



- Avoid diuretic beverages
 - Minimize consumption of alcohol, coffee, tea and caffeinated beverages
- Educate troops
 - Key to prevention
 - Eliminate myths



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Dehydration



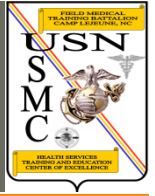
HYPONATREMIA

FMST

Dehydration



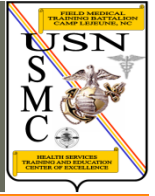
HYPONATREMIA



- Hyponatremia is a low sodium level in the blood and can occur when
 - Sodium and water is lost from sweat
 - Excessive water intake = over dilution of sodium in the blood
- Disturbs the osmotic balance and can cause a rapid influx of water into the brain



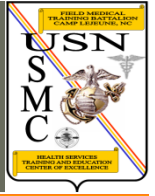
HYPONATREMIA



- Signs / Symptoms
 - Headache
 - Malaise
 - Nausea
 - Confusion/Mental status changes
 - Seizures
 - Coma
 - Permanent brain damage
 - Death



HYPONATREMIA



- Risk Factors:
 - Exercise duration of greater than 4 hours
 - Low body weight
 - Overhydration
 - NSAID use
 - Extreme hot or cold environments



HYPONATREMIA



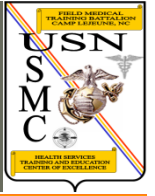
- Treatment:
 - Recognize the disorder and determine severity
 - Mild symptoms
 - Observe
 - Symptomatic
 - Place in an upright position
 - TACEVAC
 - Only treated by an MO



HYPONATREMIA



- Prevention:
 - Education
 - Do not restrict sodium intake
 - Do not rely solely on water



FMST

Dehydration



FMST

Dehydration