PELOTONIA

HEAT AND HYDRATION

HEAT CRAMPS
SYMPTOMS
• Muscle Cramps

TREATMENT
• Increase fluid sports drink
• Remove from heat
• Stretch

HEAT EXHAUSTION
SYMPTOMS
• Most common among physically active individuals
• Hard to keep pedaling, weak, rapid pulse, low bp, headache, nausea, sweating, confusion

TREATMENT
• Remove from heat—Cool with fans, wet towels, etc.
• Raise feet above heart

HEAT STROKE
SYMPTOMS
• Failure of heat triggering mechanisms
• Yes and no sweating, hot, dry skin, seizure, confusion, diarrhea
• Potential organ shutdown

TREATMENT
• Immediate medical attention
• Activate EMS
• Keep cool while awaiting EMS

HYPONATREMIA
SYMPTOMS
• > 9.5L = Hyponatremia, significant dilation of the body’s normal sodium concentration
• Headache, blurred vision, excessive sweating, vomiting, swelling of extremities

TREATMENT
• Activate EMS

WATER FACTS
• 76% of the brain is water
• 90% of the lungs are water
• 4–6% loss of body weight after exercise reduces ability to dissipate heat
• Athletes normally only replace 30–70% of sweat loss
• 24 hours after an injury is the most important time for hydration
• Alcohol and caffeine dehydrate

WATER REQUIREMENT IN EXERCISE
• Factors that determine water loss
  » Severity of physical activity
  » Environment and temperature
  » Humidity (greater humidity, less evaporation)
• Sweating is the single most effective way to lower body temperature

BEFORE ACTIVITY
• 400–600ml (17–20 floz) 2–3 hours prior
• 200–300ml (7–10 floz) 10–20 minutes prior
• Drink to a plan rather than thirst

DURING ACTIVITY
• 200-300ml (7–10 floz) every 10–20 minutes
• A well hydrated athlete always functions at higher physiological and performance levels
• Electrolyte replacement is beneficial to help replenish water loss and prevent cramping

AFTER ACTIVITY
• Drink 1L for every 1lb of body weight lost
• Thirst should not be your only indicator to ingest liquids

TAKE HOME MESSAGES
HYDRATION
• Do not rely solely on the thirst mechanism—have a plan
• Pre-activity: 400–600ml (17–20 floz) 2–3 hours prior
• During activity: 200-300ml (7–10 floz) every 10–20 minutes
• After activity: Drink 1L for every 1lb of body weight lost