

FRST Center Nutrition

Smart Hydration: Strategies for Peak Performance in First Responders



SOUTH DAKOTA
STATE UNIVERSITY

South Dakota First
Responders Support Training

SMARTER CAFFEINE FOR ENERGY

- **Time it Right:**
 - Use 30-60 min before demanding tasks to reduce fatigue and improve energy and alertness
 - Avoid within 6 hours of sleep
- **Know your Limits:**
 - Most adults can consume ~400 mg/day (3-4 cups of coffee or 1-2 energy drinks) without negative effects
- **Choose Wisely:**
 - Coffee, tea, low-sugar energy drinks over high-sugar or caffeinated options
 - Options <250 mg: Celsius, Alani, Redbull
- **Avoid** combining caffeine with other stimulants that may increase heart strain

RECOVERY: REPLENISHMENT STRATEGIES

- **Replenish Fluids First:**
 - Drink 16-24 oz of water after exercise or intense, demanding tasks
- **Replace Electrolytes:**
 - Sodium, potassium, and magnesium are necessary after heavy sweating
 - After high heat or fire, heavy exercise
 - Brands vary on electrolyte content (~200 - 1000mg)
- **Recovery Boost:**
 - Consider carbs and protein to help recovery after demanding tasks
 - Low-sugar sports drinks
 - Protein drinks with 20-30 grams protein

SUGAR SWAPS

- **Read Labels:**
 - Aim for <5-8 grams of added sugar per serving
- **Everyday Use:**
 - Choose water, infused water, or unsweetened options over soda/sweet tea
- **Save the Sports Drinks:**
 - Higher carb drinks only necessary for long and/or intense tasks or exercise
- **DIY Option:**
 - Water + citrus (lemon, orange, lime) + salt = cheap and easy option

HYDRATION TOOLKIT

- **Refillable Water Bottle**
- **Low-Sugar Electrolyte Packets** (LMNT, Ultima, LiquidIV, Gatorade Zero, Thorne)
- **No or Low Sugar Caffeine Source**