NUTRITION FOR ATHLETES: AVOIDING COMMON MISTAKES

Presented by Erica Phelps, RD

THE BASICS

- **Carbohydrates** (7-12g/kg)
  - Most efficient fuel for the body; antioxidants
  - Select slower acting forms for steady energy: whole grains, legumes, low fat milk/yogurt, whole fruit
  - Select simpler forms during activity-30-60g/hour after the first hour
  - **Common Mistakes**:
    - Inadequate intake-need to be the dominant part of the diet
    - poor timing of intake-should be consumed at least every 3-5 hours
    - poor choices-cause peaks/drops in energy, cravings
    - supplementing too much/not enough during workouts
- **Protein** (1.2-1.7g/kg)
  - Essential for immunity, build/maintain muscle mass, injury prevention
  - Include at all meals and snacks if longer time between meals
  - Lean choices: round/loin beef and pork, poultry, seafood, nuts, eggs, lowfat dairy, beans, seeds
  - **Common mistakes**:
    - Intake too high-using too much protein and too little carb
    - Poor timing-space throughout the day and after longer workouts
    - Believing you need more
- **Fats** (0.8-1.0g/kg)
  - Transports/stores vitamins; maintains cell membranes; assists with metabolism; maintains healthy skin/hair
  - Poor source of fuel for workouts
  - Choose heart-healthy choices: nuts, seeds, oil, avocado, olives
  - **Common Mistake**:
    - Too little fat in the diet
    - Too much saturated and trans fats
- **Hydration**
  - Urine pale to clear in color throughout the day
  - 16-24oz within 2 hours before
  - 6-12oz just before start
  - 6-12oz every 15-20 minutes during
  - Sports drink with 6-8% carbohydrate for events > 1 hour or high intensity/high heat
  - **Common mistake**:
    - Dehydration: throbbing headache; dizziness; severe fatigue; restlessness; confusion, nausea/vomiting
      - 2% dehydration (3# in 150# athlete) compromises cardiac function, metabolic reactions, and thermoregulation
    - Relying solely on water-must replace electrolytes after 1st hour

- **Supplements**
  - Multivitamin: essential; look for no > 100% RDA
  - Caffeine: beneficial before workout for increasing endurance-spares glycogen and aids fat metabolism
  - Protein: consuming 20g protein post workout is optimal, more shows no benefit; this can come from a 20oz glass of milk
  - Glucosamine: beneficial to joints in those with issues; little risk
  - Fish Oil: a good idea if you do not consume omega-3 fatty acids in the diet

COMMON SPORTS NUTRITION ISSUES

- **Hitting the Wall**
  - Glycogen depletion-muscle glycogen storage in finite-max is approx. 80-120 minutes before depleted
  - Once glycogen depleted, you convert fat = increased 02 uptake = fatigue (hit the wall)
  - Every gram of glycogen is attached to 3g water-lack of either can impact doubly

- **Dehydration**
  - Stroke volume decreases due to decreased blood volume
  - To maintain cardiac output, heart rate increases = fatigue
  - Follow guidelines above-use sports drinks as appropriate

- **Cramping**
  - Sodium, potassium, calcium, magnesium, hydration
  - Electrolyte supplementation?

- **Recovery Time**
  - Carbohdyrate is essential to restock glycogen stores-intake should be at least 60-75g carbs
  - Aim for 4:1 carb/protein ratio within 1 hour after workout
    - Many commercial recovery products aim to do this (Accelerade, Endurox, etc)
    - Food examples: 1 ½ cups Cheerios, 1 c. blueberries, 1 cup skim milk; 12 Triscuits and 1 oz cheese; 16oz chocolate milk; 1 cup Kashi Go Lean with lowfat yogurt; Power/Clif Bar with 8oz milk; 2 String cheese with 32oz Gatorade;
  - Waiting too long after workouts hinders recovery

- **Injury**: lack of any nutrient, but more often protein or unsaturated fats

- **Cravings**: usually a result of poor meal timing, inadequate intake (specifically carb)

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