

# Nutrition and Hydration for Cross Country: Eating and Hydrating Well to Excel

*Emily Mitchell, MS, RD, CSSD, CDE, RYT*

*emilymitchellrd@gmail.com*

*Registered Dietitian*

*Certified Sports Specialist Dietitian*

*Certified Diabetes Educator*

*Registered Yoga Instructor*



**Goal: To get adequate energy in and stay hydrated during periods of high-intensity and/or long duration training to maintain peak performance during competitions**

# Sports Nutrition

Carbohydrates maintain blood glucose level during exercise and replace muscle glycogen



vs.



# Before Exercise



A meal or snack should:

- ⦿ provide sufficient water for hydration
- ⦿ Low in fat and fiber
- ⦿ High in carbohydrate
- ⦿ Moderate in protein
- ⦿ Contain familiar foods to be well tolerated during exercise
- ⦿ Be consumed 3-4 hours before exercise

# Pre Workout Meals

1) Banana sandwich on whole grain bread and peanut butter



2) Whole grain cereal with milk and fruit



3) Granola with yogurt and berries



4) Turkey Sandwich

5) Whole grain toast with 1/3 less fat cream cheese and jam



# Pre-Exercise: Early morning

If the meet starts early in the morning:

- ⦿ Liver glycogen is depleted over night and beginning exercise with low blood sugar is likely to lead to early fatigue
- ⦿ If it is not practical to wake up to eat four hours before the event:
  - Consume small snack 30-90 minutes before
  - Eat high quality (whole grain) carbohydrates with your protein at dinner the night before
  - Have an evening snack before bed the evening before



# During Exercise



- ◎ **One hour or less:** Water should be adequate to stay hydrated and sports drinks are ok
- ◎ **One hour – 90 minutes:** If the training session lasts more than one hour then sports drinks are appropriate
- ◎ **90+ minutes:** The rule of thumb is to get 100-200 calories per hour of exercise. This can be done with sports drinks or products such as gels, bars, or energy chews

# After Exercise

- ◎ Eat carbohydrates within 30 minutes after exercise
- ◎ It is important to eat protein within 2 hours after exercise
- ◎ Avoid high-fat and high-sugar food





# Hydration during and after exercise

1. Drink plenty of fluids before each practice (a minimum of 16 ounces 1 hour before, followed by constant sipping)
2. The goal during exercise is to maintain body weight
3. Drink sips of fluid after warm-up
4. Keep a water bottle with you and within view if possible



# Adequate Hydration

## ❖ Before exercise

Drink often and drink during meals.

Carry water bottle with you during school

Rule of thumb: color of urine can indicate hydration status

## ❖ During exercise

Drink water and electrolytes beverages whenever possible during exercise

## ❖ After exercise

Listen to body

It is important to replace fluids and electrolytes lost during exercise

Important to avoid the feeling of thirst

# Sports Nutrition



- © Athletes should consume diets that provide all the major food groups
- © Restriction or elimination of any one food group can decrease your performance, energy levels and lead to vitamin and mineral deficiencies

# Five Major Food Groups



- ◉ Grains: 6-12 servings
- ◉ Vegetables: 3-5 servings
- ◉ Fruits: 3-5 servings
- ◉ Milk and Calcium-rich Foods: 3-5 servings
- ◉ Meat and Legumes: 3-5 servings



# Dietary Supplements

- ◎ Some recommended/safe dietary supplements include:
  - Omega 3 fish oils
  - Vitamin D (no more than 1,000-2,000 IU/day) and calcium (for women)
  - Multi-vitamin
  - Vegetarian athletes: possibly iron, B12, and Zinc



# Other Supplements

Safe:

- ⦿ Energy bars
- ⦿ Energy gels



Not Recommended:

- ⦿ Creatine
- ⦿ BCAA
- ⦿ Caffeine



# Questions?

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