EXERCISE NUTRITION

How are you Fueling?

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Campus Rec Services & Faculty Staff Wellness
Common Nutritional Problems

• Eating at the wrong time
• Wrong balance of carbohydrates, protein & fat
• Inadequate fluids
• “No time to eat right”
• “Tight budget”
It’s OK not to eat breakfast as long as I make up those calories later in the day.

True or False?
It’s OK not to eat breakfast as long as I make up those calories later in the day.

True or False!
Breakfast!

- Improves the quality of overall diet
- Prevents the need for sugar fixes
- Enhances performance
The foundation of a sports diet should be...

A) Carbohydrates
B) Proteins
C) Fats
The foundation of a sports diet should be...

A) Carbohydrates
B) Proteins
C) Fats
The Sports / Exercise Diet

- Carbohydrates (CHO) should be the foundation of a sports diet
- Fuel for the muscles
- Quick and Slow Carbs – what's the difference?
  - Glycemic Index
  - Fiber
  - Protein
  - Fat
I should eat how many hours / minutes before I exercise…

A) 4 hours
B) 1 hour
C) 5 minutes
I should eat how many hours / minutes before I exercise…

A) 4 hours
B) 1 hour
C) 5 minutes
Pre-Workout Fueling

• Breakfast is crucial
• Carbohydrates
• Choose CHO you tolerate well
Pre-Event Fueling

<table>
<thead>
<tr>
<th></th>
<th>g carbs / lb</th>
<th>g carbs 150-lbs</th>
<th>calorie target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hr pre-exercise</td>
<td>0.5</td>
<td>75</td>
<td>300</td>
</tr>
<tr>
<td>4 hr pre-exercise</td>
<td>2.0</td>
<td>300</td>
<td>1200</td>
</tr>
</tbody>
</table>

Carbohydrates (CHO) = 4 calories / gram

How many grams of CHO do you need?

- 1 hour?
- 4 hours?
Which nutrient is most important for me to consume during exercise?

A) Carbohydrate
B) Fats
C) Protein
D) Fluid
Which nutrient is most important for me to consume during exercise?

A) Carbohydrate
B) Fats
C) Protein
D) Fluid
Fueling during exercise

• < 1 hour
  • Fluid is essential, added CHO may help

• > 1 hour
  • 60g CHO / hour

• No benefit to taking in protein during exercise.
During Exercise - Choices

• Engineered Food
  • Sports drinks, gel, Gu, Cliff, Powerbar
  • Convenient

• Supermarket foods
  • More palatable
  • Less expensive
  • Body uses foods more efficiently:
    gummy bears, hard candies, granola bar, banana
I need about three times more protein than carbohydrate for post exercise re-fueling…

True or False?
I need about three times more protein than carbohydrate for post exercise re-fueling…

True or False!
Refueling after exercise

- You haven’t finished training until you’ve refueled.
- Needs:
  - Carbs to refuel muscle
  - Protein to build and heal
  - 3-4:1 ratio carbs to protein

<table>
<thead>
<tr>
<th>Food</th>
<th>g CHO</th>
<th>g Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gatorade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscle Milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate Milk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Refueling after exercise

• You haven’t finished training until you’ve refueled.

• Needs:
  • Carbs to refuel muscle
  • Protein to build and heal
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<thead>
<tr>
<th>Food</th>
<th>g CHO</th>
<th>g Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Gatorade</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Coke</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Accelerade</td>
<td>15</td>
<td>4g whey</td>
</tr>
<tr>
<td>Muscle Milk</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Chocolate Milk</td>
<td>31</td>
<td>10</td>
</tr>
</tbody>
</table>
Focus on “real foods” for recovery

<table>
<thead>
<tr>
<th>Food</th>
<th>g CHO</th>
<th>g Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt Flavored 8 oz</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Trail Mix Raisins, granola, nuts</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Cheerios w/ Milk</td>
<td>50</td>
<td>12</td>
</tr>
<tr>
<td>Pasta 2c. w/ meat sauce</td>
<td>80</td>
<td>20</td>
</tr>
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</table>
# Suggested Fueling Patterns

<table>
<thead>
<tr>
<th>Exercise Time</th>
<th>Fuel Up</th>
<th>Re-Fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning</td>
<td>Smoothie</td>
<td>Bagel &amp; Yogurt</td>
</tr>
<tr>
<td>Noon</td>
<td>½ Sandwich</td>
<td>Rest of Lunch</td>
</tr>
<tr>
<td>Afternoon</td>
<td>Energy bar &amp; Latte</td>
<td>Chocolate Milk</td>
</tr>
<tr>
<td>Before Dinner</td>
<td>Bagel &amp; PB</td>
<td>Smaller Dinner</td>
</tr>
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</table>
How much protein do I need?

<table>
<thead>
<tr>
<th>Category</th>
<th>Grams of Protein per pound of Body Weight</th>
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</thead>
<tbody>
<tr>
<td>Sedentary Adult</td>
<td>0.4</td>
</tr>
<tr>
<td>Recreational Adult Exerciser</td>
<td>0.5-0.7</td>
</tr>
<tr>
<td>Endurance Athlete, Adult</td>
<td>0.6-0.7</td>
</tr>
<tr>
<td>Growing Teenage Athlete</td>
<td>0.7-0.9</td>
</tr>
<tr>
<td>Adult Building Muscle Mass</td>
<td>0.7-0.8</td>
</tr>
<tr>
<td>Athlete Restricting Calories</td>
<td>0.8-0.9</td>
</tr>
<tr>
<td>Upper Requirement for Adults</td>
<td>0.9</td>
</tr>
</tbody>
</table>
Questions?