Sports Nutrition
Food & Fluids: A Winning Combination

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Allow me to introduce myself ....

UCSF BCHO: Sports Nutrition, BMT
CHORI: Nutrition in Pregnancy
Berkeley: Nutrition Sciences & Toxicology

Sports Nutrition Clinic
- First Friday afternoon of each month - Oakland
- Last Wednesday afternoon of each month - Walnut Creek

Objectives of Today's Talk

- Identify common nutrition challenges/concerns in youth athletes
- Learn what specific foods fuel bodies during activity and at rest
- Discuss when to eat before and after physical activity and the importance of hydration
- Gain common sense sports nutrition tips for young athletes

Top Nutrition Concerns for Athletes

- Energy & nutrient needs
- Foods to include
- Fluids
- Pre-practice/game eating
- Post-workout eating

Food & Fluid as Tools for Athletic Performance

- Training “diet” basics
- Hydration strategies
- Pre-game eating
- Recovery foods

What Happens When You Are Physically Active??
Large Scale View of Where & How We Use Energy

Carbohydrate Foods → Energy

Protein Foods → Energy

Foods with Fat → Energy

Eat quality carbs!

Eat quality protein!

Healthy Fats

Needs:

--> Essential Fats:
- omega-3: 0.9-1.6 grams per day
- omega-6: 10-16 grams per day

Selections:

--> MUFA's & PUFA's
--> Examples: nuts, flaxseed meal/oil, fish, canola

3-ounce serving = ~21 grams

Food Fuel Used for Different Types of Physical Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Carbohydrates</th>
<th>Fats</th>
<th>Proteins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast, short</td>
<td>70%</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>10-12 seconds</td>
<td>60%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Short race</td>
<td>50%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Low intensity, long duration</td>
<td>40%</td>
<td>40%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Slide provided by Dr. Liz Applegate, UC Davis
**Choosing your fats wisely**

Choose **more** often:
- nuts
- avocado
- fish
- olive oil
- peanut butter

Choose **less** often:
- margarine
- butter
- fried foods
- creamy sauces
- chips, crackers

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**Fluid Basics**

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**Early Warning Signs of Dehydration**

- Fatigue
- Loss of appetite
- Nausea
- Poor concentration
- Flushed skin
- Light-headedness
- Dark urine
- Muscle cramps

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**Fluids During Workouts & Events**

- Fluid intake: replace losses from sweat and other losses
- Aim for pale yellow urine color – five full bladders of urine daily
- Fluid choice: water, sports drinks, juices, coffee drinks?
- Water or Sports Drinks?  
  Both provide an excellent source of fluid before, during, and after workouts
  Sports drinks: can also provide electrolytes and carbs that can help during and after intense exercises

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**Eating Before Workouts/Events:**

- Eat 1-4 hours before
- Pick higher carb, lower fat items
- Select moderate protein (milk, light sandwich)
- Stick with favorites!

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**Post Workout & Event Eating Goals**

- Muscles need recovery nutrients – carbs and protein
- Optimize recovery by soon after working out - No more than 4 hours post workout!
- Include quality protein for muscle repair
Pre & Post-Workout Fuel Activity: Determining what you may need

Food Labels

Goal: 57 grams of Carbohydrate
Peanut butter sandwich -- 6 grams
2 slices whole wheat bread -- 24 grams
1 medium banana -- 30 grams
1 string cheese stick -- 1 gram
Total: 57 grams

Goal: 14-17 grams of Protein
8 oz chocolate milk -- 8 grams protein
1 hard boiled egg -- 6 grams protein
1 cup grapes -- 1 gram protein
30 grams carbohydrate
Total: 15 grams protein, 52 grams carbohydrates

Other Topics?!

“In The Bag”
Ideas of fueling foods for your bag

• Carbs: fruit, dried fruit, crackers
• Protein/Fats: “travel sandwich” PB, cheese, protein/granola bar, eggs-hard boiled
• Fluids: water, sport drink (only if needed)
Performance Eating
On the Road

• Plan ahead – what does your body need??
• Use the same “home” rules when you are travelling for competition
• If eating out – look at the menu ahead of time or online
• Do not forget fluids!!

Thank you!!

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