TACTICAL ATHLETE NUTRITION GUIDANCE

HYDRATION

- Your body weight in pounds divided by 2 = the minimum number of ounces of fluids you need per day (This does not include the amount of exercise you do or the climate you are in.)

Example: 120 pounds ÷ 2 = 60 ounces of water per day

Half Gallon = 64 ounces  1 Gallon = 128 ounces  1 Canteen = 32 ounces
* For most people, 1 large gulp = 1 ounce

With exercise add:
- 16 ounces (1/2 canteen) - 2 hours prior to exercise
- 4-8 ounces* - 10 minutes prior to exercise
- 4-8 ounces* - every 20 minutes during
- 16-24 ounces after exercise

For exercise lasting longer than 60 minutes
- Use sports drinks for hydration, glucose and electrolytes to improve endurance performance (Powerade, Gatorade)
- Per 8 ounces: 12-24 grams of Carbohydrate; 110-170 mg of Sodium; 20-50 mg Potassium

Symptoms of dehydration:  For these symptoms, notify your instructor immediately:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thirsty</td>
<td>Chills</td>
</tr>
<tr>
<td>Headache</td>
<td>Increased Heart Rate</td>
</tr>
<tr>
<td>Dry Mouth</td>
<td>Muscle Cramps</td>
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<tr>
<td>Dry Skin</td>
<td>Nausea/vomiting</td>
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<tr>
<td>Fatigue</td>
<td>Swollen stomach</td>
</tr>
<tr>
<td>Dizzy</td>
<td>Confusion</td>
</tr>
</tbody>
</table>

TROUBLESHOOTING NUTRITION TIPS

<table>
<thead>
<tr>
<th>Problem</th>
<th>What should you do?</th>
<th>Food Sources</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low energy; sluggish; easily tired</td>
<td>Eat foods rich in CARBOHYDRATES</td>
<td>Whole wheat bread, cereal, pasta, rice, peas, corn, potatoes, fruits, veggies</td>
<td>Carbohydrates provide fuel for muscles and brain</td>
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<tr>
<td>Muscle strains, injuries; slow to recover</td>
<td>Eat good food sources of PROTEIN</td>
<td>Chicken, fish, beef, cheese, milk, nuts, seeds, peanut butter</td>
<td>Faster recovery from injury; repair muscles</td>
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<tr>
<td>Trouble sustaining energy output</td>
<td>Eat healthy FAT sources</td>
<td>Nuts, seeds, peanut butter, olive oil, olives, fish, canola oil, avocado</td>
<td>Greater energy output; build muscle more efficiently;</td>
</tr>
<tr>
<td>Constipation</td>
<td>Increase FIBER in diet</td>
<td>Whole grain bread &amp; cereal; beans, peas, fruits and vegetables</td>
<td>Relief!</td>
</tr>
<tr>
<td>Difficult maintaining body temperature; low energy</td>
<td>Increase IRON rich food sources</td>
<td>Beef, chicken, turkey, fish, spinach, kale, beans, peas, fortified breads, cereals and juice</td>
<td>Greater energy; better tolerance to cold</td>
</tr>
<tr>
<td>Broken bones; stress fractures; brittle teeth</td>
<td>Increase CALCIUM rich foods. Increase VITAMIN D food sources.</td>
<td>Milk, yogurt, cheese, salmon, broccoli, kale, calcium fortified foods. Vit D fortified milk, eggs, seafood, fortified cereals</td>
<td>Strengthen bones and teeth; Vitamin D helps body absorb calcium and thus helps prevent fractures and bone weakness.</td>
</tr>
<tr>
<td>* Increase muscle mass</td>
<td>Increase CALORIES and PROTEIN rich foods</td>
<td>Fish, chicken, lean beef, pork, milk, eggs, cheese yogurt, peanuts, nuts/seeds, beans, lentils</td>
<td>Protein intake must be combined with weight training to build muscle mass.</td>
</tr>
</tbody>
</table>
**PROPER FUELING**

*What to eat-

- 55-65% from Carbohydrates to fuel muscles and brain
  - Eat **Whole Grain and Whole Wheat Breads** (1st ingredient needs to be “whole grain flour” or “whole wheat flour”), **Whole Grain Cereals** (Kashi, Oatmeal, Fiber One, Wheaties), **Brown Rice, Whole Wheat Pasta, Fruits, Vegetables, Beans and Legumes** (pinto, black, lentils, split peas, kidney), **Low-fat Dairy**

- 20-30% from Fat to absorb vitamins and cushion organs, tissues, and joints.
  - Eat **Healthy, Unsaturated Fats** (olive oil, olives, nuts and seeds, natural peanut butter, avocado, fatty fish, flax seed)
  - Limit Saturated Fats (fried, animal fats, hydrogenated foods and processed)
  - Avoid Trans Fats (hydrogenated foods and processed)
  - At least 75 grams of **total fat/day**

- 15-20% from Protein to build and repair muscle
  - Eat **Lean Meats** (poultry, fish, lean sirloin and pork tenderloin), **Eggs, Low-Fat Dairy** (milk and soy milk, cottage cheese, yogurt), **Nuts and seeds, Beans, and Legumes**
  - The best diet contains adequate but not excessive protein. Extra protein does not build extra muscle, exercise does - proper training builds and strengthens muscles.
  - Protein needs per pound of body weight:
    - Athlete 0.5 - 0.80 gm pro/lb.
    - Athlete Building Muscle Mass 0.7 - 1.0 gm pro/lb.
    - Athlete Restricting Calories (needs weight loss) 0.8 - 1.0 gm pro/lb.

*When to eat-

- **A key to healthy eating is fueling your body throughout the day, eating every 3-4 hours is ideal.**

- **BEFORE Exercise**
  - Eat a carbohydrate-rich meal with protein 3-4 hours prior to exercise
    - Examples: Banana and peanut butter sandwich and milk; Bagel sandwich w/ lean meat, cheese and veggies; Chicken, rice and veggies; Spaghetti with lean meat and a salad
  - Eat a carbohydrate-rich snack 30 minutes to 2 hours before training/competition.
    - The timing is wide because each individual’s stomach is different- some people can eat right before they exercise and not get an upset stomach, others cannot.
    - Examples: a piece of fruit, ½ bagel, or a granola bar

- **AFTER Exercise**
  - Eat a combination of carbs and protein within 30 minutes of exercise.
    - Examples: 8-16 oz. chocolate milk or flavored soy milk; Turkey sandwich; Flavored Greek yogurt and fresh fruit; Fruit and yogurt smoothie
  - Eat a balanced meal containing all the food groups (protein/dairy, grains, fruit, veggies) within 2 hours.
    - Examples: Homemade Burrito (tortilla, beans, lettuce, tomato, low-fat cheese, and salsa); Grilled poultry, brown rice, veggies, and fruit; Tuna salad made with veggies, whole grain crackers, provolone cheese, and fruit.

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**For maximum physical and mental performance, at every meal, eat carbohydrates, protein and drink milk.**

<table>
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<th>Carbohydrates = Fruits &amp; vegetables, low fat milk/yogurt/soy milk, whole grain bread, pasta, cereal, oatmeal, beans, peas, corn, potatoes.</th>
<th>Protein = Low fat milk, yogurt, cottage cheese, &amp; cheese, lean meats, eggs, fish &amp; poultry, beans, nuts, and seeds, whole grains, soy products.</th>
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*Choose 100% WHOLE GRAIN products.*