Top 10 Nutrition Tips for Runners

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Tip #1: Maximize Energy

* Eat the right amount of energy (calories) for your body

* Rule of thumb: 100 calories for every pound you weigh + 100 calories for every mile you run + daily activity calories (300-500 on average)

*150# runner = 1,500 + 1,000 (10 mile training run) + 500 (activity) = 3,000 calories for the day to maintain weight
Energy needs also depend on several factors, including:

* body weight
* fitness level and body composition
* age and gender
* current sport/fitness routine
* current eating plan
* whether you want to maintain, gain, lose weight

*If you are looking to get leaner, drop no more than 500 calories per day from your intake – that’s roughly 1# of body fat lost per week*

www.myfitnesspal.com
Tip #2: Eat a Variety of Foods – Often During the Day

*Studies find that eating MORE times a day helps maintain a MORE lean, fit body.

*Set your plan to eat **5-6 times a day** (3 meals + 2-3 snacks)

*Start with a solid breakfast

*Eat a mix of foods daily to ensure key nutrients are utilized
*Determine total ENERGY needs
*Determine protein needs (.7 to 1.0 grams protein/# body weight for most athletes)

*Breakfast = 1/5 calories and protein
*Lunch = 1/5 calories and protein
*Dinner = 1/5 calories and protein
*Snacks = 1/5 calories and protein
*Pre- and Post-Workout = 1/5 calories and protein
5 30-gram protein breakfasts

**Breakfast #1:** 2 slices of whole wheat toast with 2 tablespoons of peanut butter + 1 banana + 2 cups lowfat chocolate milk

**Breakfast #2:** 2-egg omelet with 1 oz low fat cheese and 1 oz chopped ham wrapped in 1 medium whole grain tortilla + 1 cup of 100% grapefruit juice

**Breakfast #3:** Smoothie with ½ cup lowfat vanilla Greek yogurt + ½ cup grape juice + ½ cup frozen berries + 1 scoop vanilla protein powder + ice

**Breakfast #4:** 1 turkey and cheese sandwich (3 oz. turkey) on whole wheat bread + 1 cup OJ

**Breakfast #5:** 1 Canadian bacon, egg, and cheese bagel + 1 lowfat milk (McDonald’s)
Calories = 2,500 per day (3,000 maintenance – 500 per day to get leaner)

Protein = 158 - 175 grams per day (0.9 to 1.0 gram/# for enhancing strength and leaning out)

*Breakfast* = 500 calories and 35 g protein
*Lunch* = 500 calories and 35 g protein
*Dinner* = 500 calories and 35 g protein
*Snacks* = 500 calories and 35 g protein
*Pre- and Post-Workout* = 500 calories and 35 g protein
175# Runner

**Breakfast:** 1 egg + 2 whites, scrambled with 1 slice cheese in 1 whole wheat tortilla + 8 ounces calcium-fortified OJ + water (520 calories + 32 grams protein)

**Post-workout Recovery:** 8 oz. skim chocolate milk (150 calories + 9 grams protein)

**Snack:** ¼ cup nuts + 1 orange + water (250 calories + 10 grams protein)

**Lunch:** 1 turkey/cheese sub + 1 apple + 1 cookie + water (550 calories + 35 grams protein)

**Snack:** Smoothie with 1 cup lite yogurt + ½ cup OJ + ½ cup frozen blueberries + ice (200 calories + 10 grams protein)

**Dinner:** 4 oz. grilled chicken breast + 1 cup whole wheat pasta/sauce + 1 big salad/lite dressing + 1 cup skim milk (600 calories + 50 grams protein)

**Snack:** 1 Greek yogurt + 1 apple (200 calories + 15 grams protein)

**TOTAL:** 2,470 calories + 161 grams protein
1. Maximize breakfast by getting up early enough to get in a solid meal before starting the day or early morning training.

2. Utilize post-workout fuel to take full advantage of recovery nutrition.

3. Find easy, fast lunches and dinners to maximize protein and save time.

4. Have easy snacks planned that mix a protein and carb.

**PROTEIN OPTIONS**

- Boiled eggs
- Milk
- Yogurt cups
- Whey protein powder
- 3 oz. deli meat

**CARB OPTIONS**

- Fresh fruit
- Whole grain cereal
- Granola bars
- Baked chips or pretzels
- Whole grain tortilla
Macronutrient Keys

- **CARBOHYDRATES** are **KEY** for MAXIMAL energy, speed, stamina, concentration, recovery and better fluid balance.
- **BOTH carbohydrate and protein** are important for muscle strength and mass.
- **FAT** needs to be part of the plan for stamina – with emphasis on omega-3 and mono-unsaturated fats.
- **FLUIDS** should be maximized before, during, and after workouts and games.
Tip #3: Pair Quality Carbs with Protein for Meals and Snacks

*Mix high-quality carbs (whole grains, fruits, veggies, milk, yogurt, legumes) with protein for meals and snacks.

**EXAMPLES:**
*1 Greek yogurt + 1 cup berries + ½ cup granola
*2 whole wheat waffles + 3 T. peanut butter + 1 banana + 1 glass OJ
*1 turkey sandwich + 1 orange + 1 cup vegetable soup + oatmeal cookies
⅛ cup peanuts + ¼ cup dried fruit + ¼ cup sesame sticks
Tip #4: Optimize Carbs for long runs and races

*The longer your runs, the more carbohydrate you need to fuel muscles. Add in 60-100 calories (15-25 grams) of carbs for every mile you run (during the day or for recovery)

EXAMPLE for 7-mile hard run in the afternoon:
*Breakfast: Add 2 cups 100% OJ (50g CHO)
*Lunch: Add 1 fruit yogurt (50g CHO)
*Afternoon snack: Add 1 cup cereal (40g CHO)

7 miles = average of 20g CHO per mile
A muscle is like a sponge

Keep your muscles full of fuel

Carbs reach muscles quickly

Goal: 50-65% carbohydrate
## Carbohydrate in foods

<table>
<thead>
<tr>
<th>Food</th>
<th>CHO content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup Gatorade</td>
<td>14</td>
</tr>
<tr>
<td>Apple</td>
<td>20</td>
</tr>
<tr>
<td>Banana</td>
<td>25</td>
</tr>
<tr>
<td>1 cup orange juice</td>
<td>25</td>
</tr>
<tr>
<td>1 cup Sprite</td>
<td>26</td>
</tr>
<tr>
<td>2 sl. bread</td>
<td>30</td>
</tr>
<tr>
<td>1 cup spaghetti</td>
<td>40</td>
</tr>
<tr>
<td>1 cup rice</td>
<td>42</td>
</tr>
<tr>
<td>1 baked potato</td>
<td>50</td>
</tr>
<tr>
<td>1 cup fruit yogurt</td>
<td>50</td>
</tr>
<tr>
<td>2 cups fruit punch</td>
<td>74</td>
</tr>
</tbody>
</table>
Eat carbs at each meal and snack!

- Breads, cereals, bagels, tortillas, crackers
- Fresh fruit, canned fruit, dried fruit, frozen fruit, fruit juice
- Pasta, potatoes, rice, corn, peas
- Granola bars, cereal bars, trail mix
- Milk, chocolate milk, yogurt, cheese
- Veggies
- Sweets, desserts
Tip #5: Train with your nutrition plan in mind for the race

*Try out sports drinks, gels, and other supplements and foods during long runs to ensure they work for you
*Use sports nutrition products in training - and at the same time of day as your race
*Start early with your use of sports drinks in particular – don’t get “behind” on your hydration
*Ideal nutrition = 30-60 grams of carbs per hour of running (16 – 32 ounces of Gatorade per hour)
Products on the course

- Water every ~2 miles
- Gatorade Endurance Formula (lemon lime) will be available at water stations (14g cho / 200mg sodium per 8 oz.)
- GU Energy Gel at miles 7.5 and 20 (25g cho / 55mg sodium per gel.)
EXAMPLE: Race Plan

- Mile 2 – 6 oz. Gatorade
- Mile 4 – 6 oz. Gatorade
- Mile 7.5 – GU + 8 oz. water
- Mile 10 – 6 oz. Gatorade
- Mile 13 – 6 oz. Gatorade
- Mile 15 – 6 oz. Gatorade
- Mile 18 – 6 oz. Gatorade
- Mile 20 – GU + 8 oz. water
- Mile 22 – 6 oz. Gatorade
- Mile 24 – 6 oz. Gatorade

Total carbohydrate intake = 134 grams
(~30 grams of CHO per hour for a 10-minute-mile pace)

OR

~39 grams of CHO per hour for an 8-minute-mile pace
Tip #6: Maximize protein to maintain lean muscle and bone

*Most endurance runners need to take in at least .6 to .7 grams of protein for every pound they weigh on a daily basis.

*Choose high-quality proteins such as lean meats, fish, poultry, legumes, soybeans, eggs, milk, yogurt, nuts, and seeds.

*Whole grains and vegetables can also supply significant protein.

120# = 72-84 grams protein per day
160# = 96-112 grams protein per day
200# = 120-140 grams protein per day
Protein in Foods

<table>
<thead>
<tr>
<th>Food</th>
<th>Grams of Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 oz. meat, fish or poultry</td>
<td>30 grams</td>
</tr>
<tr>
<td>1 small can of tuna</td>
<td>24 grams</td>
</tr>
<tr>
<td>2 cups milk</td>
<td>16 grams</td>
</tr>
<tr>
<td>1 carton Greek yogurt</td>
<td>14 grams</td>
</tr>
<tr>
<td>2 eggs</td>
<td>14 grams</td>
</tr>
<tr>
<td>1 cup beans</td>
<td>14 grams</td>
</tr>
<tr>
<td>4 oz. tofu</td>
<td>10 grams</td>
</tr>
</tbody>
</table>

- yogurt, cheese, nuts, and soy foods are good sources
Protein KEYS

- Get 1-2 protein sources with every meal
- Balance protein with 2 or 3 high-carbohydrate foods
- Make sure to get in 20-30** grams of protein per meal, including breakfast:

  *1 egg + 3 whites, scrambled with toast, juice, and a glass of milk (30 grams)*

  *Smoothie with 1 cup Greek yogurt + 1 scoop whey protein + 1 cup OJ + 1 cup frozen strawberries (30 grams)*

  *1 small whole wheat tortilla with 1 cheese stick + 3 oz. ham rolled up in it + 1 banana + 1 glass OJ (35 grams)*
Tip #7: Optimize Fats for Recovery and to Decrease Inflammation

* Fats are good for runners!
* Just choose the right KINDS of fats
* Taking in moderate fat in your diet (20-30% of your intake) may help you train harder, recover better, and lower inflammation in your body.
HOW TO OPTIMIZE FATS

- **Optimal fat:** 20-30% of calories
- Moderate fat diet aids overall health, minimizes GI upset, and allows for adequate CHO and PRO intake
- Monounsaturated fats: nuts, sunflower seeds, nut butter, soybeans, avocados, unsaturated oils (olive, canola)
- Omega-3 fats: salmon, tuna, ground flaxseeds, walnuts
- Choose low-fat vs. nonfat products for needed energy and fat
- Avoid fried or greasy foods
Tip #8: Prioritize RECOVERY NUTRITION after every workout and race

*Recovery FUEL should be part of your training regimen each day.

*The goal of recovery nutrition is to train your muscles to maximize energy storage every day.
Recovery Nutrition

Nutritional Recovery Goals:

1. Glycogen restoration
2. Fluid/electrolyte replacement
3. Muscle repair and adaptation

- Carbohydrates
  - 50 grams or more is ideal within 30 minutes

- Protein
  - 10-20 grams protein within 30 minutes

• PRIORITIZE EATING after workouts and races
Recovery Nutrition Options

- Recovery shakes
- Chocolate milk
- Instant breakfast drinks
- Yogurt and fruit
- Cereal and milk
- Smoothie with soy milk and fruit
- Sports bars and water
- Chicken noodle soup, crackers, and 100% juice
- Peanut butter and jelly on whole wheat + 100% juice
- Pasta/sauce + 100% juice
- EAT A REGULAR MEAL!

College of Health Sciences
Department of Kinesiology
POUNCE Recovery Shake

- 1 cup calcium-fortified OJ
- 1 cup frozen berries or peaches
- 6 oz. vanilla GREEK yogurt
- Ice

- Blend and drink within 30 minutes of long runs and hard workouts
- 289 calories / 60g CHO / 14g PRO / 1g FAT + 600mg calcium / 110 mg sodium
Tip #9: HYDRATE on a SCHEDULE

*Hydrate before, during, and after training and races
*Be Smart: When you sweat a lot, you lose fluid AND sodium. Replace both with sports drinks and salty foods in addition to water and other fluids
*Stick to a drinking schedule
*Know your sweat rate and develop your personal hydration plan
*Take advantage of fluid stops along the course
## Electrolyte Losses in Sweat

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Mg in a Liter of sweat</th>
<th>AI Values, mg/day</th>
<th>Possible AI Lost in Sweat, %/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>460-1,840</td>
<td>1,300</td>
<td>35-140</td>
</tr>
<tr>
<td>Chloride</td>
<td>710-2,840</td>
<td>1,300</td>
<td>35-140</td>
</tr>
<tr>
<td>Potassium</td>
<td>160-390</td>
<td>4,700</td>
<td>3-8</td>
</tr>
<tr>
<td>Magnesium</td>
<td>0-36</td>
<td>240-420</td>
<td>0-15</td>
</tr>
<tr>
<td>Calcium</td>
<td>0-120</td>
<td>1,000-1,300</td>
<td>0-12</td>
</tr>
</tbody>
</table>
FLUIDS - HOW MUCH?

- 1 water bottle in AM, 1 in afternoon, and 1 at night \textit{minimum}
- At least 2 cups 1 hour pre-workout
- At least 6 ounces every 20 minutes of hard exercise
- 24 ounces (3 cups) for every pound lost within 2 hours AFTER practices and games
- Add CHO + sodium if >1 hour

*Drink all day long*
Tip #10: Fill Your Plate with Foods High in Antioxidants

- Antioxidants help protect the body from harmful free radicals.
- Free radicals can damage tissues, cells, and genes. They occur in the environment and are naturally produced by the body.
  - A natural type of “rusting”
- Antioxidants neutralize free radicals before damage to cells and tissue occurs.
<table>
<thead>
<tr>
<th>Colors</th>
<th>Fruits and Veggies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green</strong></td>
<td>Broccoli, Brussels Sprouts, Bok Choy, Cauliflower, Cabbage, Kale, Collards, Mustard Greens, Green Peppers, Kiwi, Spinach, Limes, Leeks, Avocados</td>
</tr>
<tr>
<td><strong>Orange/Yellow</strong></td>
<td>Oranges, Tangerines, Yellow Grapefruit, Peaches, Lemons, Papaya, Pineapple, Nectarines</td>
</tr>
<tr>
<td><strong>Red/Purple</strong></td>
<td>Red Grapes, Purple Grape Juice, Cherries, Berries, Plums, Prunes, Raisins</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>Onions, Chives, Garlic</td>
</tr>
</tbody>
</table>
THANK YOU!