


Top 10 Nutrition Tips for Cross Country

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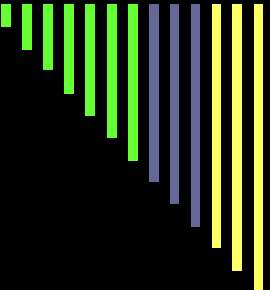


Tip #1: Maximize Energy

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

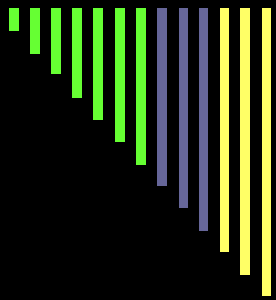
*Rule of thumb: 100 calories for every pound you weigh + 100 calories for every mile you run + daily activity calories (300-500 on average)

***150# runner** = 1,500 + 1,000 (10 mile training run) + 500 (activity) = 3,000 calories for the day to maintain weight



Possible *Barriers to Optimizing Energy Intake*

- Sleeping in – rather than eating breakfast
- Finding time to eat during the day
- Knowing what to eat
- Learning how to prepare meals and snacks
- Food cost
- Choosing high-quality food
- Access to a team sports dietitian



However, an optimum high-performance nutrition program can be the difference between being a “good” and a “great” athlete.

- ***Your diet can either hold you back from reaching your goals or propel you on to success!***



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 stronger, you need to add more food to your daily plan – usually 500+ calories a day***



Energy Intake – High School / Collegiate Athletes

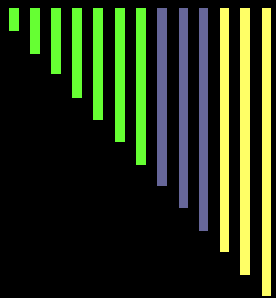
- **Most studies find high school and collegiate athletes consistently under-eat.**
- **One study of 345 collegiate athletes found that both genders eat well under their recommended needs, with only 15% consuming enough CHO and 26% eating enough PRO. In the study, the majority of female athletes (62%) wanted to lose at least 5 pounds.**

Int J Sport Nutr Exer Met. 2004;4:389-405



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



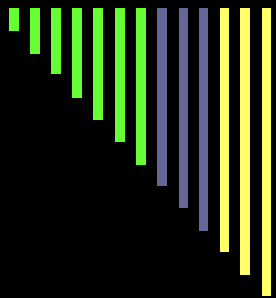
I FUEL

3-Tiered Approach to Performance Nutrition

****Frequent Fueling (Focus on Timing)***

****High-Quality Foods and Fluids***

****Fine Tuning for Personalized Needs (Weight Management, Bone Strength, Anemia Prevention, Immune Enhancement)***



I FUEL

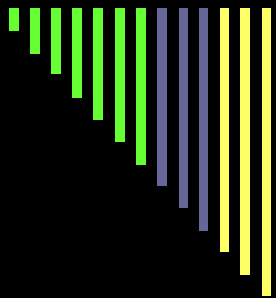
STRATEGIES

****Optimize breakfast***

****Eat every 3-4 hours during the day***

****Fuel 1-2 hours before training and within 30-45 minutes after training***

****Maximize nutrition***



I FUEL

MAXIMUM NUTRITION

****Whole grains and high-quality carbs***

****High biological value proteins***

****10+ fruits/veggies to maximize vitamins, minerals, and antioxidants***

****Optimal fats to decrease inflammation and aid recovery***



Why is **breakfast** so important for athletes?

- Fuel early in the day
- Hydration boost
- Muscle glycogen promotion
- Better concentration
- Muscle building
- Pre-workout fuel
- Team bonding



Breakfast Keys

High-quality carbohydrates for muscle and brain energy

High-quality protein to maintain and build lean muscle and provide satiety

Fiber (primarily from whole grains and fruit) boost satiety while providing overall health benefits

Fluids to enhance hydration and digestion

*Check out www.training-conditioning.com for an upcoming article on the benefits of breakfast for athletes



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 $\frac{1}{2}$ cup lowfat vanilla Greek yogurt + $\frac{1}{2}$ cup grape juice + $\frac{1}{2}$ 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)



Women's Cross Country Runner

***Calories = 2,500 per day (3,000 maintenance – 500 per day to get leaner)**

***Protein = 120 – 130 grams per day (1.0 gram/# for maintaining muscle while dropping bodyfat)**

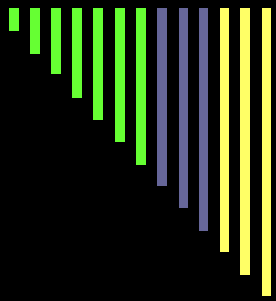
***Breakfast = 500 calories and 25 g protein**

***Lunch = 500 calories and 25 g protein**

***Dinner = 500 calories and 25 g protein**

***Snacks = 500 calories and 25 g protein**

***Pre- and Post-Workout = 500 calories and 25 g protein**



Women's Cross Country Runner

Breakfast: 2 eggs, scrambled in 1 small whole wheat tortilla + 8 ounces calcium-fortified OJ + water (350 calories + 20 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 cereal bar + water (550 calories + 30 grams protein)

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

Dinner: 3 oz. grilled chicken breast + 1 cup whole wheat pasta/sauce + 1 big salad/lite dressing + 1 cup skim milk (600 calories + 40 grams protein)

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

TOTAL: 2,300 calories + 134 grams protein



NUTRITION KEYS

1. Maximize breakfast by getting up early enough to get in a solid meal before morning practice.
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. turkey, ham, or roast beef

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**

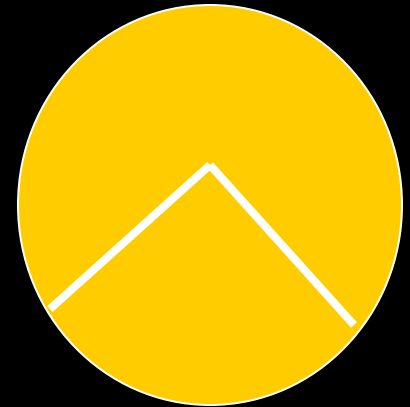
¼ cup peanuts + ¼ cup dried fruit + ¼ cup sesame sticks



WHAT TO EAT

Meal composition should be:

- **2/3 high-carbohydrate foods**
 - Bread, bagels, pasta, rice, cereal
 - Fruits/vegetables
 - Milk products, legumes
- **1/3 protein**
 - Lean red meats, poultry, fish, shellfish, eggs, cheese, soy products, beans, nuts, nut butters, seeds, cheese, yogurt, milk





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



Carbohydrates Fuel Muscles

- *A muscle is like a sponge**
- *Keep your muscles full of fuel**
- *Carbs reach muscles quickly**
- *Goal: 50-65% carbohydrate**



Carbohydrate in foods

<u>Food</u>	<u>CHO content</u>
1 cup Gatorade	14
Apple	20
Banana	25
1 cup orange juice	25
1 cup Sprite	26
2 sl. bread	30
1 cup spaghetti	40
1 cup rice	42
1 baked potato	50
1 cup fruit yogurt	50
2 cups fruit punch	74



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

- *Know what foods work for you before races and use them consistently**
- *Plan ahead by eating a high-carbohydrate meal the night before your race**
- *Have snacks and fluids ready if racing after school so you can be fully energized**



Tip #6: Maximize protein to maintain lean muscle and bone

- *Most endurance runners need to take in *at least .5 to .6 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.



Protein in Foods

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

□ yogurt, cheese, nuts, and soy foods are good sources



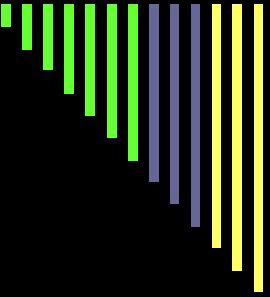
Protein KEYS

- **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**

ASAP



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!**

ASAP



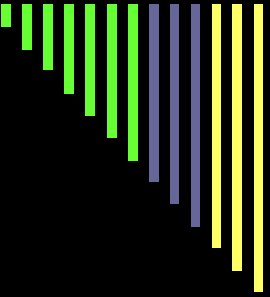
Tip #9: HYDRATE on a SCHEDULE

- *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 during training
- *Know your sweat rate and develop your personal hydration plan



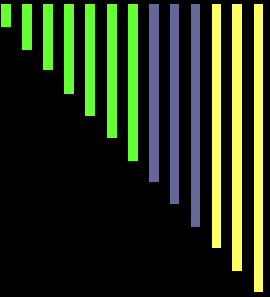
FLUIDS - HOW MUCH?

- 1 water bottle in AM, 1 in afternoon, and 1 at night *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



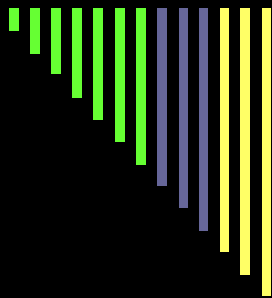
What do Lemonade and Apple Juice have in common?

- You can double-check hydration status throughout the day by checking the color of your urine:
 - **Well-hydrated** = Looks like **lemonade** (light in color)
 - **Dehydrated** = Produces less urine than normal, and it's darker, like **apple juice**



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.



<u>Colors</u>	<u>Fruits and Veggies</u>
Green	Broccoli, Brussels Sprouts, Bok Choy, Cauliflower, Cabbage, Kale, Collards, Mustard Greens, Green Peppers, Kiwi, Spinach, Limes, Leeks, Avocados
Orange/Yellow	Oranges, Tangerines, Yellow Grapefruit, Peaches, Lemons, Papaya, Pineapple, Nectarines
Red/Purple	Red Grapes, Purple Grape Juice, Cherries, Berries, Plums, Prunes, Raisins
White	Onions, Chives, Garlic