

# CROSS COUNTRY NUTRITION AND HYDRATION



HYDRATION: WHEN, HOW MUCH	
To stay hydrated everyday	half your weight in ounces plus 8 oz. per 15 minutes of exercise
2-3 hrs. before running	17-20 oz. combination of water and sports drink
30 min. before race	8-10 oz. water or sports drink
Post-race or after practice	24 oz. combo of water and sports drink for every pound of body weight lost during exercise
8 oz. = 1 cup    12 oz. = size of soda can	

**HYDRATION CHECK:**  
*If your urine looks like lemonade, you are well-hydrated. If it looks like apple juice, you are under-hydrated.*

**LEARN HOW TO CALCULATE SWEAT LOSS**  
 Know your sweat rate to determine how much fluid to drink to replace weight lost. Sweat loss is weight before exercise, minus weight after exercise, plus amount of fluid consumed. There are many websites that will help you determine your sweat rate. For an on-line version, google "sweat rate calculator;" or view a hand-calculated version on our website: [www.xcnutrition.com](http://www.xcnutrition.com).

Parent volunteers should provide cold, wet washcloths to runners after the race. Go to [www.xcnutrition.com](http://www.xcnutrition.com) to find out what else parents can do.

**UNDERSTANDING SPORTS DRINKS**  
 If runners lose too much fluid in sweat without replacing what they've lost in both fluids and electrolytes (like sodium and potassium) they risk becoming dehydrated. Sports drinks provide triple benefits: they rehydrate, refuel & replenish. They replace carbs and sodium.  
 \* Choose sports drinks with sodium, carbohydrates and potassium. It should have at least 14 grams of carbs per 8 oz., in drinks such as Gatorade and Powerade.  
 \* Stay away from energy drinks and fitness waters, such as Red Bull, Propel, Vitamin Water and low-calorie sports drinks like G-2. These do not have the nutrients found in sports drinks.



Choose Powerade or Gatorade, which have the best ingredients

## HYDRATE...Make it a Habit

*If you are dehydrated you lose speed, strength, energy and decision-making ability. Your risk of injury is also increased.*

## Not feeling good?

*Tell Someone asap! Know the early stages of heat exhaustion. If you are experiencing dizziness, blurred vision or vomiting...tell a coach, adult or teammate.*

## DEHYDRATION

Dehydration reduces strength, power and endurance. **Signs of dehydration:** thirsty, headache, fatigue, impaired performance, nausea, dry mouth, chills, clammy skin, cramps, muscles lose strength. Higher levels of dehydration can lead to increased body temperature, dizziness, and heat stroke, which can be life-threatening.

## RESOURCES

- [www.usatf.org](http://www.usatf.org) (US Track & Field)
- [www.runnersworld.com](http://www.runnersworld.com)
- [www.gssiweb.com](http://www.gssiweb.com) (Gatorade library)
- [www.wcpss.net/athletics](http://www.wcpss.net/athletics): hot weather info
- [www.scandpg.org](http://www.scandpg.org) (American Dietetic Assn)
- [www.trianglediet.com](http://www.trianglediet.com)
- [www.RKTeamNutrition.net](http://www.RKTeamNutrition.net)
- [www.nutritiondata.com](http://www.nutritiondata.com)

## SIGNS OF HEAT PROBLEMS

Runners and parents should be aware of signs of heat cramps, heat stroke and heat exhaustion. Adapting to heat takes 14 days of acclimation. The Wake County High School Athletic Association recommends that runners train in the heat for 2 weeks before competing.

**Heat Exhaustion** is very common during a cross country meet. It can be due to heat, fluid loss, concurrent sickness such as a viral illness, medications or simply overexertion.

### Early Stages: Signs of Heat Exhaustion:

- \*Cool, moist, pale, ashen, or flushed skin
- Headache, nausea, dizziness
- Weakness, exhaustion
- Heavy sweating

### Late Stages: Signs of Heat Stroke

- Red, hot, dry skin
- Changes in level of consciousness
- Vomiting

Coaches and parents should ensure that Ice packs are available at meets.



## www.xcnutrition.com

This material is produced by the **Wake County XC Parent Education Group**, made up of parent volunteers from Wake County high school cross country teams. Its purpose is to provide educational information for athletes, parents and coaches on nutrition, hydration and safety for high school runners.

**info@xcnutrition.com**

This material is intended for general educational purposes, and does not take the place of a physician, or serve as substitute for medical advice or treatment.



## THE NIGHT BEFORE AN EVENT

Start fueling the night before a race with:

- \* High carb foods: whole grain bread, pasta, rice, cereal
- \* Protein foods (PB, lean meats, eggs, yogurt, lowfat dairy)
- \* Water for hydration and digestion

## DINNER IDEAS:

Pasta w/grilled chicken & marinara, salad  
 Salmon and potatoes, sauteed zucchini  
 Baked potato w/veggies & lowfat chili  
 Rice and grilled/broiled chicken, peas  
 Stir-fried veggies, lean meat, rice, bread

## CARB LOADING

**What's a Cross Country meet without a carb-loading Pasta Dinner? Carbs fuel muscles for training and racing and provide long-haul energy stores.**

Pasta, rice	Pancakes
Cereal, oatmeal	Potatoes
Whole grain bread, bagels	Yogurt
Bananas, fruit, fruit juice	Sports drinks
Crackers, pretzels	Fig bars, raisins

## PRE-RACE FOODS

- \* 2-4 hours before racing eat a decent meal
  - \* 30 minutes out eat a small nutritious snack
  - \* Eat easily digestible foods
  - \* Choose unprocessed foods.
- Low fiber cereal & milk  
 Yogurt  
 Dried fruit, fresh fruit  
 Rice, noodles, pasta w/low-fat sauce  
 Chicken with pasta  
 Bagel, Banana  
 Cream of wheat or rice  
 Baked potato w/steamed broccoli  
 Bread or toast w/honey or jam  
 Pancakes w/syrup  
 Non-dairy fruit smoothie  
 Cereal bar, sports bar  
 Boiled or scrambled eggs, toast

## WHEN TO EAT to allow time for digestion

1 hour prior to exercise	small snack
2 hours "	light meal
3 hours "	regular-sized meal
4 hours +	heavy meal

## BREAKFAST IDEAS

- |                |                     |
|----------------|---------------------|
| * Oatmeal      | * Pancakes, waffles |
| * Eggs         | * Fruit, juice      |
| * Banana       | * Yogurt            |
| * French toast | * Fruit smoothie    |

## LUNCH IDEAS

Turkey sandwich	Pasta
Fruit	Low-fat yogurt
Bread and honey	PB&J, skim milk
Bagel w/PB or cream cheese & honey	

## POST-RACE REFUELING

**The most important time to eat is within 30 minutes after running**

- \* It restores energy and repairs muscle
  - Waiting longer than 2 hours can slow recovery.
  - \* Protein as well as carbohydrates are important for tissue repair and glycogen replacement
- Sports drink--16 oz. or more  
 Bread--add honey, jam, cream cheese  
 Cereal w/skim milk and fruit  
 Yogurt w/fruit or nuts Chocolate milk  
 Turkey sandwich PB&J sandwich  
 Fruit smoothie Fruit  
 Crackers Granola



*"Don't try something different on race day. You should know your body and what works for you."*  
 Jen Ketterly,  
 UNC Chapel Hill  
 Athletics



**TIPS:** Don't skip meals, eat a good breakfast, refuel within 30 minutes after running. AND GET ENOUGH SLEEP!

## HEALTHY FATS

Many runners eat too little fat. They are important for immunity, recovery, energy and health. Examples of good fats include: nuts, seeds, peanut butter, oils (like Olive oil), oil-based salad dressings, olives, avocado, soy nuts or soy milk, fish.

## IRON-RICH FOODS

**Low iron may result in decreased performance, fatigue, feeling faint, breathlessness. Consult with your physician to test iron levels.**

Lean beef, pork, skinless roasted chicken breast  
 Green veggies--peas, spinach, lentils, beets  
 Whole grain breads & fortified cereals  
 Dried fruit, apricots, raisins, sunflower seeds  
 Nuts, peanut butter, PB crackers, hard pretzels  
 Canned tuna, beans, molasses,  
 Hard-boiled egg, egg yolks, baked potato with skin

## SODIUM

**Sodium is lost through sweating. It's the most important electrolyte to replete. You can find sodium in:**

Crackers, pretzels, sports drinks, soups, pickles, salted popcorn, tomato juice

## PROTEIN

**Needed for energy and to repair muscle tissue**

Meats, fish, poultry	Soy milk
Low-fat string cheese	Eggs
Peanut Butter	Beans, lentils
Low-fat milk	Yogurt
Nuts & seeds	Whole grains

## DAILY NUTRITION CHECKLIST

Protein	Carbs	Calcium
Iron	Vitamin C	Sodium
Fluids	Healthy fats	

## LOAD UP ON VITAMIN C

Vitamin C is an antioxidant that can help protect your body and encourage recovery. oranges, OJ, grapefruit, tangerines, cantaloupe, strawberries, cranberry juice, broccoli, leafy greens, tomatoes, peppers, potatoes

## BOOST YOUR CALCIUM INTAKE

**Drink your milk! Calcium deficiency can cause stress fractures. Calcium is found in:**

milk	almonds
yogurt	salmon
cheddar cheese	broccoli
milkshakes	baked beans, peas

## GOOD SNACK CHOICES

Stay away from the candy and processed foods. Pack your own lunch and snacks.

Pretzels, nuts	Fig bars
Peanut butter & bagel	Power bars
Granola bars	Carrots
Graham crackers	Pudding cup
Wheat crackers	Oranges, grapes
PB & honey on tortilla	Bananas

## www.xcnutrition.com

Visit our website for more extensive information and free hand-outs on hydration, nutrition and safety. Any school or team is welcome to post this information.

Created by the **Wake County XC Parent Education Group**, made up of parent volunteers from Wake County high school cross country teams. [info@xcnutrition.com](mailto:info@xcnutrition.com)

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