

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.

Parent volunteers should provide cold, wet washcloths to runners after the race. Go to 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 (US Track & Field)
www.runnersworld.com
www.gssiweb.com (Gatorade library)
www.wcpss.net/athletics: hot weather info
www.scandpg.org (American Dietetic Assn)
www.trianglediet.com
www.RKTeamNutrition.net
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