

IMPROVING ENERGY FOR OPTIMUM ATHLETIC PERFORMANCE

WHAT TO EAT BEFORE, DURING & AFTER TRAINING

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WE ALL KNOW WHAT AN ATHLETE EATS EVERY DAY MAKES A BIG DIFFERENCE IN THE TRAINING ENERGY AND PERFORMANCE ON THE FOLLOWING PAGES IS A SIMPLE STARTERS GUIDE TO HELP YOU FOCUS YOUR HABITS TO IMPROVE ENERGY SO THAT YOU CAN TRAIN AND COMPETE AT YOUR BEST



THE BASICS

ENERGY NEEDS: INTAKE ENOUGH CALORIES TO MAXIMIZE PERFORMANCE & RECOVERY.

EVENLY DISPERSE CALORIES THROUGHOUT YOUR TRAINING AND COMPETITION DAYS: THIS ENSURES CONSISTENT ENERGY LEVELS THROUGHOUT THE DAY AND ESPECIALLY BEFORE, DURING & AFTER TRAINING.

HYDRATION: CONSUME ENOUGH FLUIDS AND ELECTROLYTES BEFORE, DURING AND AFTER TRAINING/COMPETITION TO ENSURE YOU DO NOT GO INTO A DEHYDRATED STATE (WHICH CAN LEAD TO PERFORMANCE DECREMENTS AND EVEN HEALTH CHALLENGES).





- **PRE-TRAINING NUTRITION.** MAKE SURE TO HAVE APPROPRIATE TIMING, CALORIES, FLUIDS AND FOODS THAT HAVE THE RIGHT MIXTURE OF CARBS, PROTEIN, FAT AND ELECTROLYTES TO MAXIMIZE PERFORMANCE.

DURING COMPETITION. VERY IMPORTANT TO HYDRATE AND INTAKE PROPER AMOUNTS OF CARBOHYDRATES IF YOU ARE PERFORMING IN HIGH INTENSITY, SHORT DURATION TYPE ACTIVITIES. FOR EXAMPLE - STRENGTH TRAINING, HIGH INTENSITY INTERVAL TRAINING (HIIT), SPEED AND POWER SPORTS (FOOTBALL, BASKETBALL, ETC).

POST TRAINING NUTRITION. REPLACE FLUIDS LOST AND INTAKE ENOUGH NUTRIENTS WITHIN 30-45MIN AFTER EACH COMPETITION TO REPLACE WHAT WAS LOST DURING TRAINING.

CALORIES ARE IMPORTANT FOR PERFORMANCE AND RECOVERY

- MOST COMPETITIVE ATHLETES NEED/USE/BURN BETWEEN 500-800 CALORIES PER HOUR DURING TRAINING. THEREFORE, YOU NEED TO ENSURE YOUR DIET IS PROVIDING ENOUGH CALORIES TO PREPARE FOR THESE NEEDS... AND ALSO REPLACE THESE CALORIES POST TRAINING.
- CALORIE NEEDS VARY GREATLY FROM ATHLETE TO ATHLETE BECAUSE OF DIFFERENCES IN GENDER, BODY COMPOSITION, AGE, LEVEL OF ACTIVITY, DURATION AND EFFICIENCY OF MOVEMENT, ENVIRONMENTAL CONDITIONS, ETC.

PRE-TRAINING HYDRATION GUIDELINES

- **2-3** HOURS BEFORE A TRAINING SESSIONS DRINK APPROXIMATELY 2-3 CUPS (16-22OZ) OF FLUIDS.
- THEN **1 HOUR** BEFORE A WORKOUT OR COMPETITION DRINK APPROXIMATELY 1-2 CUP (8-16OZ) OF FLUID.
- **15 MINUTES** BEFORE THE WORKOUT OR COMPETITION DRINK APPROXIMATELY 1-2 CUP (8-16OZ) OF FLUID.



THE BEST WAY AN ATHLETE WILL KNOW WHAT WORKS IS BY PRACTICING THEIR NUTRITIONAL STRATEGY ON NON-COMPETITION DAYS.

TRAINING IS DESIGNED TO HELP YOU AS AN ATHLETE IMPROVE ALL ASPECTS NEEDED TO COMPETE AT A HIGH LEVEL. JUST LIKE FOCUSING ON TECHNICAL, TACTICAL, MENTAL AND PHYSICAL ASPECTS OF YOUR SPORT OR COMPETITION, YOU SHOULD ALSO FOCUS ON HOW BEST TO OPTIMIZE YOUR NUTRITION FOR INCREASED ENERGY AND PERFORMANCE.



DURING TRAINING HYDRATION/NUTRITION GUIDELINES

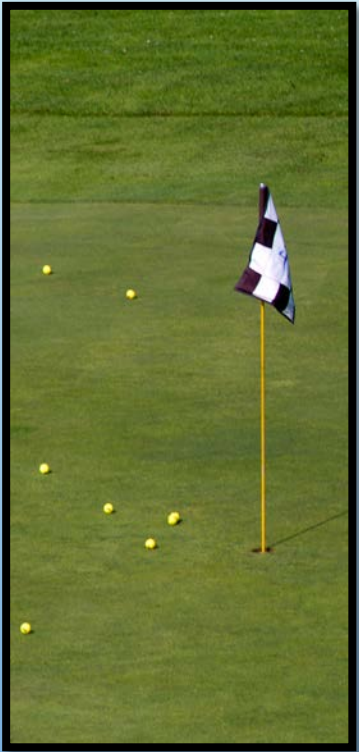
- A GOOD RULE OF THUMB IS TO DRINK BETWEEN 4 SWALLOWS OF WATER (4-12 OZ) OR A SPORTS DRINK (CARBOHYDRATE/ELECTROLYTE FORMULA). THE HIGHER END OF THE RANGE IS TYPICALLY FOR INDIVIDUALS THAT ARE HEAVY SWEATERS AND ARE TRAINING IN HOT AND HUMID CONDITIONS.
- EXPERIMENT WITH THIS FORMULA AND THEN ADJUST ACCORDINGLY FOR EACH ATHLETIC ACTIVITY YOU ENGAGE IN UNTIL YOU FIND THAT YOUR WEIGHT REMAINS WITHIN A CLOSE RANGE FROM THE START TILL THE END OF THE MATCH. A DECREASE IN 1-2 LBS IS ACCEPTABLE.
- CONSUME APPROXIMATELY 70MG OR MORE SODIUM PER 8OZ OF FLUID (SIGNIFICANTLY MORE MAY BE REQUIRED FOR HEAVY SWEATERS AND SALTY SWEATERS).
- IF YOU TRAIN FOR MORE THAN 60 MINUTES, CARBOHYDRATES CAN BE VERY BENEFICIAL. HOWEVER, IF YOU TRAIN LESS THAN 60 MINUTES YOU MAY NOT REQUIRE EXTRA CARBOHYDRATES FOR PERFORMANCE.
- FOR STRENGTH/SPEED/POWER TRAINING 30-60G OF CARBOHYDRATES PER HOUR.

DURING TRAINING HYDRATION/NUTRITION GUIDELINES

- CARBOHYDRATE BEVERAGE SHOULD BE A 5-7% CARBOHYDRATE SOLUTION
- BEVERAGE COULD POSSIBLY HAVE A 4 TO 1 CARBOHYDRATE TO PROTEIN RATIO
- CONSUME APPROXIMATELY 70MG OR MORE SODIUM PER 8OZ OF FLUID
- 30-60G OF CARBOHYDRATES PER HOUR
 - IF ACTIVITY LASTS LONGER THAN AN HOUR
 - NO CARBOHYDRATES ARE NECESSARY IF YOU PRACTICE OR COMPETE LESS THAN 60 MINUTES



DURING TRAINING HYDRATION/NUTRITION GUIDELINES



- CARBOHYDRATE BEVERAGE CAN BE A 5-7% CARBOHYDRATE SOLUTION
- BEVERAGE COULD POSSIBLY HAVE A 4 TO 1 CARBOHYDRATE TO PROTEIN RATIO. ESPECIALLY IN INDIVIDUALS THAT PERFORM HEAVY STRENGTH TRAINING OR SIGNIFICANT AMOUNT OF ECCENTRIC TYPE EXERCISE WHICH CAUSES SIGNIFICANT MUSCLE DAMAGE.
- IF YOU TRAIN FOR MORE THAN 2-3 HOURS YOU MAY NEED 60-90 GRAMS/HOUR OF CARBOHYDRATES. SPECIFICALLY MULTIPLE TYPES OF CARBOHYDRATES (GLUCOSE, FRUCTOSE, DEXTROSE, MALTODEXTRIN, ETC).

POST TRAINING HYDRATION/NUTRITION

- AFTER A MATCH/GAME YOUR OBJECTIVE IS TO REPLACE FLUID AND FUEL LOSSES TO HELP MAXIMIZE RECOVERY AND MINIMIZE FATIGUE. THE GOAL IS TO DRINK 20-24OZ OF FLUID FOR EVERY POUND OF BODYWEIGHT LOST. IF YOU GAIN WEIGHT DURING THE MATCH THIS WEIGHT GAIN SHOULD NOT EXCEED 2 POUNDS. IT IS IMPORTANT TO MAKE FLUID ADJUSTMENTS FOR THE NEXT TRAINING SESSION.
- FROM A NUTRITIONAL STANDPOINT THE GOAL IS TO REPLACE THE CARBOHYDRATES USED DURING THE MATCH AND ALSO CONSUME PROTEIN TO HELP PREVENT SIGNIFICANT MUSCLE BREAKDOWN.



POST TRAINING HYDRATION/NUTRITION

- THE GOAL SHOULD BE TO CONSUME BETWEEN 20-30 GRAMS OF PROTEIN AND 30-60 GRAMS OF CARBOHYDRATES WITHIN 30-45 MINUTES TO MAXIMIZE RECOVERY AND TO RESTORE ENERGY LEVELS FOR THE NEXT TRAINING SESSION AND TO AID IN IMPROVING RECOVERY.



SOME EXAMPLES

ON THE FOLLOWING PAGES ARE A FEW MENU EXAMPLES FOR ATHLETES' TOURNAMENTS.

THESE MENUS ARE DESIGNED FOR AN INDIVIDUAL WHO NEEDS APPROXIMATELY 3000 CALORIES ON TRAINING DAYS.

REMEMBER THAT NUTRITION AND ENERGY NEEDS ARE INDIVIDUALIZED. THEREFORE, THESE RECOMMENDATIONS ARE STARTING GUIDELINES, BUT EACH ATHLETE NEEDS TO ADJUST BASED ON PERSONAL PREFERENCES.

DAILY TRAINING MENU EXAMPLE

TWO A DAY TRAINING
AT 11AM AND 3PM

PRE-TRAINING

Morning 7:00am–9:00am

4oz Whole Wheat Bagel

1 Whole Egg

2 Egg Whites

1oz Low Fat Cheese

1 cup Fresh Strawberries

10oz Juice—Orange Juice

10oz Water

Pre-Match 9:00am–11:00am

20oz Water

TRAINING (120 MINUTES)

Match 11:00am–1:00am

10oz Electrolyte Beverage that contains a 5–7% carbohydrate (~14g CHO per hour)

8oz solution or a 4–1 ratio (per hour)

12oz of Water (per hour)

Energy Bar (~210Cals--Contains 42g of CHO and 6g of protein)

couple bites during exchanges

May also need more fluid than indicated pending on sweat rate

LUNCH & PRE-TRAINING

Lunch 1:00pm–2:00pm (have within 30–45min)

Nutrition Shake (~360Cals--54g CHO, 20g pro, 8g of healthy Fat)

- AND/OR TURKEY SANDWICH (Depending on LENGTH OF PREVIOUS TRAINING & TIME BETWEEN WORKOUT SESSIONS)

2 cups Fruit

16oz Water/Replace any fluid lost during match

Pre-TRAINING 2:00pm–3:00pm

16–20oz Water (may need another snack or pre-workout energy source)

TRAINING SESSION #2

Match 3:00pm–5:00pm

10–20oz Electrolyte Beverage that contains a 5–7% carbohydrate (~14g CHO)

- per 8oz solution or a 4–1 ratio/ Rest Water an hour

Energy Bar (~210Cals--Contains 42g of CHO and 6g of protein)

Couple bites during training

Replace any fluid lost and preferably eat dinner within an 60–90 minutes of training

May also need more fluid than indicated pending on sweat rate

EVENING

Evening Meal 5:00pm–6:00pm

2oz Grilled Chicken

1 cup Whole Wheat Pasta

1 cup Green Beans

16oz Skim/1% milk or Juice

Evening Snack 9:00pm–10:00pm

8oz Low-Fat Yogurt

1oz Salted Nuts

1 Fresh Fruit

10–16oz Water

TRAINING MENU FOR ONE SESSION PER DAY

3PM TRAINING ONLY

PRE-MATCH

Morning 7:00am-9:00am

4oz Whole Wheat Bagel
1 Whole Egg
2 Egg Whites
1oz Low Fat Cheese
1 cup Fresh Strawberries
10oz Juice—Orange Juice
10oz Water

Snack 10:00am-11:00am

Energy Bar (~210Cals--Contains 42g of CHO and 6g of protein)

16oz Water

Lunch 1:00pm-2:00pm

1 Nutrition Shake (~360Cals--54g CHO, 20g pro, 8g of healthy Fat)

2 cups Fruit

16oz Water

Or

Turkey sandwich on whole wheat bread, mustard, tomato, lettuce and fruits,
Baked Lays chips, Healthy cranberry muffin top

Pre-TRAINING 2:00pm-3:00pm

20oz Water

TRAINING 3:00-5:00 PM

10-20oz Electrolyte Beverage that contains a 5-7% carbohydrate

(~14g CHO per 8oz solution or a 4-1 ratio/ Rest Water an hour

1 Energy Bar (~210Cals--Contains 42g of CHO and 6g of protein)

- Replace any fluid lost and eat dinner within an hour

EVENING

Evening Meal 5:00pm–6:00pm

2oz Grilled Chicken

1 cup Whole Wheat Pasta

1 cup Green Beans

16oz Skim/1% milk or Juice

Evening Snack 9:00pm–10:00pm

8oz Low-Fat Yogurt

1oz Salted Nuts

2 Fresh Fruits

10–16oz Water

**TAKE CARE OF BASICS AS THE CORE
OF YOUR NUTRITION TO ENSURE YOU
HAVE THE ENERGY YOU NEED TO
PLAY AT A HIGH LEVEL**

WHAT ABOUT SUPPLEMENTATION?

- SUPPLEMENTATION CAN BE VERY IMPORTANT. HOWEVER, TAKING CARE OF THE BASICS OF YOUR MACRONUTRIENTS (CARBOHYDRATES, PROTEINS, FATS, WATER) WILL PLAY A BIGGER ROLE INITIALLY.
- ONCE YOUR OVERALL MACRONUTRIENT CONSUMPTION IS EXCELLENT, THEN WORK TOWARD ADDING SUPPLEMENTATION. THIS WILL BE DISCUSSED IN GREATER DETAIL IN A FUTURE COURSE OR E-BOOK. KEEP FOLLOWING KOVAC SINSTITUTE.COM FOR MORE DETAILS, AND A FUTURE IN PERSON COURSE.



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