

# PREPARATION FOR COMPETITION BEGINS WITH YOUR NUTRITION

## Pre-Game & Pre-Training Nutrition Guidance



### ● Hydration

Prevents dehydration and gastrointestinal issues during exercise (6)



### ● ESSENTIAL NUTRIENTS TO FOCUS ON

#### **CARBOHYDRATES (CHO)**

The primary source of energy for volleyball athletes (3)

The consumption of CHO is required to ensure your muscles and liver have adequate glycogen storage (2)

#### **PROTEIN**

A secondary source of energy the body uses after sustained exercise (3)



### ● KEY ENERGY SYSTEM UTILIZED BY VOLLEYBALL ATHLETES

#### **ANAEROBIC**

Women's volleyball rallies typically last between 15 - 60 seconds (6)

This means that your bodies use glycogen stores for your source of energy during rallies (1)

Carbohydrates are converted into glycogen which the body stores and uses as energy (1)

### DID YOU KNOW...

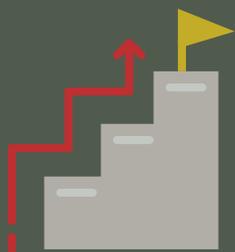


Consuming CHO and protein even 30 minutes prior to activity is linked to enhanced performances (1)

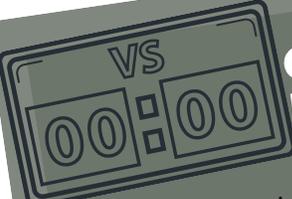
### **CARB LOADING**

24-48 hrs prior to competition volleyball athletes should be increasing their CHO intake to ensure their bodies have enough storedup energy (5)(7)



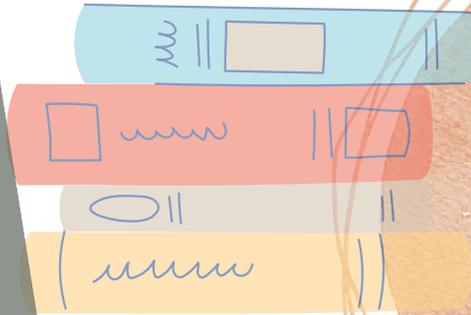


# The goal of a pre-game meal is to provide energy, eliminate hunger, and reduce the risk of gastrointestinal distress (2)



## GAME DAY PREPARATION

- Hydrate at least 2 hrs before the game (1)
- Meals should be high in CHO, medium protein, and low in fat (2)
- $(\text{body weight in kilograms}) \times (\text{hours prior to competition}) = \text{grams of carbohydrates}$  (2)



During a typical day with classes, eating every 2-3 hours helps to sustain classroom learning and prepares you for court and strength training (8)

**Consistency with meal timing leads to better energy (1)**

## PRE GAME MEAL IDEAS

- Spaghetti and meatballs with garlic bread
- Tofu Stir-fry with rice
- Club sandwich with roasted potatoes and a Caesar salad



(1)



## WARNING SIGNS YOU ARE LOW ON FUEL

- Unable to sustain a high level of play for a full practice
- Low energy throughout the day and at practice
- Weight loss
- Hormone disruption
- Can lead to a lack of necessary micro nutrients like iron, calcium, and B-complex vitamins

(2) (6)(8)

## MEAL PREP TIPS FOR A VARSITY ATHLETE SCHEDULE

- Meal planning
  - Weekly trips to the grocery store to ensure you have enough food to sustain you for a full week.
- Plan easy meals that you can always have available in a hurry
  - Eg. Sandwich or wrap supplies
  - homemade frozen meals
  - planned leftovers.
    - Snacks: Canned tuna and crackers, boiled eggs, smoothies

(6) (8)



# NUTRITION DURING COMPETITION & TRAINING



## ● WHY FUEL DURING A GAME?

- Activity that goes beyond an hour typically requires additional CHO (1)
- Our bodies can only store so much glycogen and after 1 hour of volleyball we start to run out (1)
- 30-60g of CHO is recommended to sustain performance (6)



## HYDRATION TIPS

**DEHYDRATION CAN LEAD TO POOR PERFORMANCE AND SERIOUS HEALTH CONSEQUENCES** (4)

- Bring your own large water bottle to games or practices
- Add some healthy flavouring to your water to encourage hydration
  - Diluted sports drinks
  - Diluted juice
  - Sugarless flavouring drops(6)

## OPTIMAL TIMES TO REFUEL

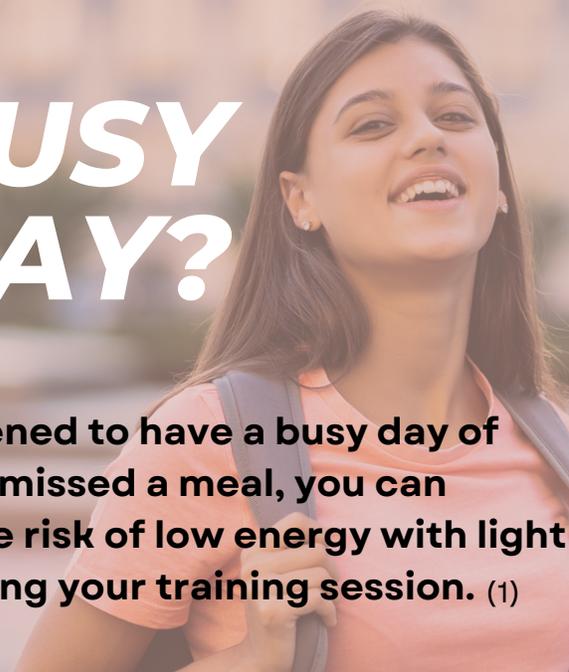
The sport of volleyball has a variety of predictable breaks built into the game that athletes can take advantage of to refuel themselves (2)

### EXAMPLES

- Timeouts
- Between sets
- When you get a break on the bench
- During small breaks to wipe the floor or challenge a referee's call (2) (4)

## BUSY DAY?

If you happened to have a busy day of classes and missed a meal, you can minimize the risk of low energy with light fuelling during your training session. (1)



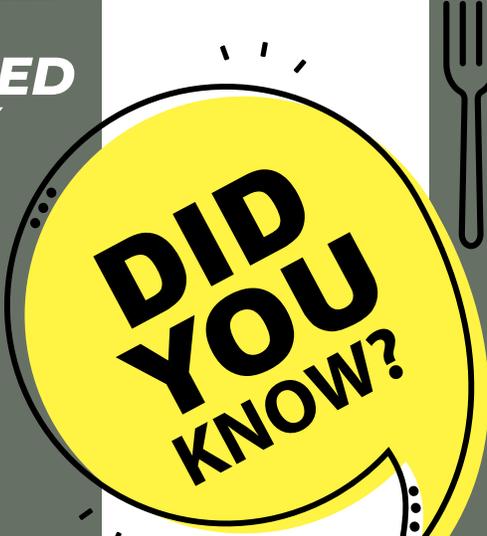


# SUSTAINING ENERGY IS KEY TO PERFORMING IN THE 5TH SET!

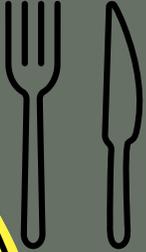


## RECOMMENDED GAME DAY DRINKS

- Water
- Sports drink
  - Gatorade
  - Powerade
- Fruit juice
- Lemonade
- Limeade (6)



Food and drinks should be consumed together to allow for digestion and limit stomach problems during a game (2)



## RECOMMENDED FOODS

- Individual puddings
- Dried fruit
- Oatmeal cookies
- Fresh fruit
- Graham crackers
- Peanut butter and banana/jelly sandwiches
- Granola bar (6)

**Athletes must replace the fluids that are lost during games! (6)**



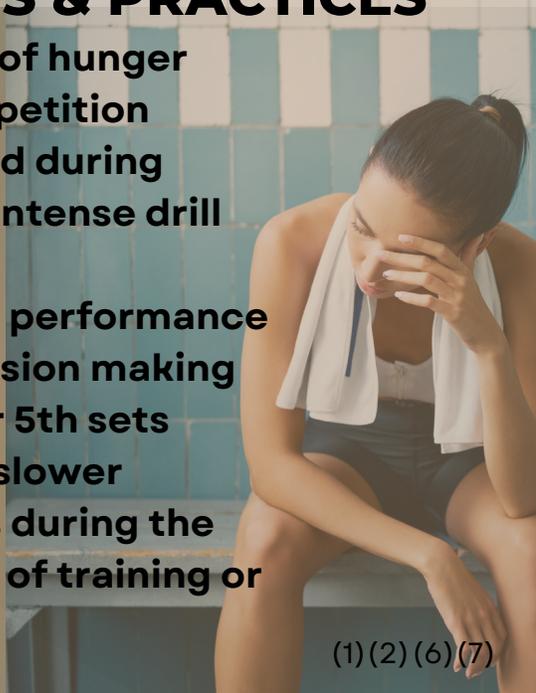
**A TYPICAL SWEAT RATE IS BETWEEN 1-1.5 LITRES PER HOUR (7)(6)**

## TIPS FOR MAKING SURE FOOD AND DRINKS ARE AVAILABLE

- Bring your own big water bottle and keep track of how much you are drinking
- Keep a case of sports drinks available to throw in your bag before heading to practice
- Add "practice snacks" to your meal planning so you have small items you enjoy readily available
- Keep a box of granola bars in your gym locker or bag in case you forget or run out of time one day (2)(6)

## SIGNS YOU SHOULD BE FUELLING MORE DURING GAMES & PRACTICES

- The feeling of hunger during competition
- Light headed during medium to intense drill or rally
- Diminishing performance and/or decision making in the 4th or 5th sets
- Noticeably slower movements during the second half of training or games



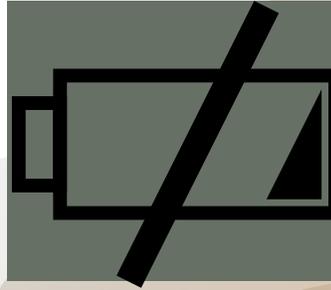
(1)(2)(6)(7)

# POST GAME TRAINING NUTRITION



## TIME IS OF THE ESSENCE!

- Eating a well-balanced meal within 2-3 hours of activity provides your muscles additional “doses” of fuel (2)
- Recommended:
  - Eat every 2h over a 4–6 hour period after a game (6)
- If you have another game within the next 24 hours this becomes especially important (4)



**GLYCOGEN STORES CAN BE COMPLETELY DEPLETED AT THE END OF A HARD MATCH OR PRACTICE (6)**



## EVER HEARD OF THE 30-60 MINUTE WINDOW?

- Muscles are primed to absorb amino acids and glucose in the blood to use for recovery by accelerating protein synthesis (2)
- Fuel:
  - Athletes should consume 1.0–1.2 g of carbohydrate/kg body weight and about 20 g protein during this time period (2)
- Hydration:
  - 20–24 oz of fluid, preferably with sodium, for every pound of body weight lost during activity (6)

**Focus on re-hydrating after practices and games (4)**



**FUEL IN THE FORM OF LIQUID IS SOMETIMES EASIER TO INGEST (2)**





# POST GAME RECOVERY

## WHY REFUEL POST GAME?

VOLLEYBALL GAMES ARE TYPICALLY PLAYED TWO OR THREE DAYS IN A ROW, WITH MATCHES LASTING SEVERAL HOURS (7)

PROGRESSIVE FLUID AND GLYCOGEN DEPLETION MAY HAMPER PERFORMANCE IN THE LATTER DAYS OF COMPETITION (6)

## POOR POST-GAME NUTRITION MAY CAUSE:



- Longer recovery times
- Increased risk of injury
- Lack of energy or fatigue (3) (4) (8)

**INCLUDE SODIUM AND POTASSIUM IN THE RECOVERY MEAL TO HELP REPLENISH WHAT WAS LOST AFTER A SWEATY PRACTICE OR GAME** (6)

TO COMBAT THIS, AGGRESSIVE STRATEGIES TO PROMOTE ADEQUATE FLUID AND CHO ARE IMPERATIVE (4)

**SNACKING CAN BE A VERY EFFECTIVE WAY TO AID NUTRITIONAL RECOVERY** (7)

Circumstances are more difficult when travelling for away games where the proper selection of eating venues and menu choices must include good sources of high-carbohydrate, low-fat choices (4)

### IDEAS FOR 2-3 HOUR WINDOW

- Baked chicken breast with collard greens, rice, and soy sauce
- Vegetarian chili cooked with beans, corn, and a side of baked nacho chips
- Spaghetti Bolognese with Parmesan cheese

(3) (6)

### IDEAS FOR 30-60 MINUTE WINDOW

- Smoothie with banana, peanut butter, almond milk, oats, and protein powder
- Pre-made quesadilla with cheese, chicken, pepper, corn
- Sandwich with deli meats, cheese, lettuce, sprouts, pickles and mayo

(2) (6)

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