Sports Nutrition for Volleyball Athletes

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Benefits of Proper Fueling & Nutrition

• Enhances overall health status
• Improves athletic ability & sport performance
• Increases conditioning, strength & energy levels
• Promotes muscle repair and growth
• Maximizes work out results
• Optimizes body composition
• Enhances lean muscle mass
• Improves mental function
• Improves recovery time
• Reduces risk of injury, illness, fatigue
Nutrition Fundamentals for Volleyball Athletes

Volleyball is a physically and mentally demanding sport requiring **endurance, strength, speed and focus**. Utilizing nutrition and fueling your body appropriately can enhance your skills and give you the extra edge over the competition. Establishing a **balanced & consistent nutrition foundation** helps ensure you will achieve the appropriate fuel to improve your health and sport performance.
Performance Plate

Components of a Performance Plate

- **Fruits and Vegetables**
  - Antioxidants
  - Anti-inflammatory

- **Lean Protein**
  - Muscle Growth and Repair

- **Whole Grains**
  - Sustained Energy
  - Nutrient Dense (vitamins, minerals, fiber)

- **Dairy**

**Fluid**

**Grains**

**Protein**

**Vegetable**

**Fruit**
Carbohydrates

• **Energy**
  • 60-70% total intake

• **Complex Carbohydrates**
  • Slowly digested - Prolonged energy
  • Majority of carbohydrates should be **whole grains**
  • Nutrient Dense - rich in vitamins, minerals, fiber
  • *Whole wheat bread, tortillas, cereals, pastas, bagels, crackers, oatmeal, rice, sweet potato*

• **Simple Carbohydrates**
  • Quickly digested - Instant energy
  • Best within an hour of exercise
  • *Fruits, honey, granola bar, pretzel, applesauce, sport chew/gel*
Fruits and Vegetables

• Include in meals and snacks
  • Minimum 5 vegetables daily
  • Minimum 4 fruits daily

• Benefits
  • Nutrient rich (vitamins, minerals, fiber)
  • Energy source
  • Reduce oxidative damage
  • Support hydration

• Make your plate colorful!
  • Phytonutrients give fruits and vegetables their color and support healthy immune system

• Add into yogurt, cereal, sandwiches, smoothies or have alone as a snack

• Try a new fruit and vegetable each week!
Protein

• Strength & Power
• Muscle repair and growth
• Lean Protein:
  • “less legs” turkey, chicken, fish (2X/week), eggs, tofu, beans, seeds, nuts, lentils, low-fat or fat-free dairy (milk/cheese/yogurt)
• Include at all meals and snacks, post work out and before bed
Hydration

• Supports healthy immune function, energy, mental focus, reduces risk of fatigue, injury, illness

• Dehydration occurs when you fail to replace fluids and electrolytes that are lost through sweat

• Best: water, carb-electrolyte sports drink, 100% fruit juice, LF/FF milk

• Needs
  • Half body weight in fluid ounces (160lb ~80oz (4-5 standard water bottles))
  • ~16-24oz for every pound of sweat lost during activity in addition

• Tips:
  • Carry a water bottle around with you
  • Set phone alarms reminding you to hydrate
  • Snack on foods with a high water content such as fruits and vegetables
  • Monitor Urine Color-paler yellow the better
  • Weigh yourself before and after exercise
  • When traveling by plane—you need to replace an additional ~8floz/hour in flight
Tournament Fueling

• Focus on nutrition basics and emphasize carbohydrates, lean proteins, and hydration

• Pack Healthy Snacks
  • Quick Access to Energy and Recovery to Replenish and Refuel Energy Stores In between Matches
  • Gym Bag/Cooler: Granola bars, Nuts, instant oatmeal, Hard boiled eggs, Trail mix, Crackers, Cereal, Granola, PB&J, Fresh Fruit, Fresh Vegetables, Dried fruit, Yogurt, Applesauce, Beef Jerky, String Cheese, Hummus, Ready-to-drink (RTD) drinks (NSF certified for sport), chocolate milk, peanut butter/nut butters, tuna, pretzels, sports chews or gels, water, carbohydrate/electrolyte sports drinks (ie Gatorade or PowerAde)
Fueling for Competition

**Note:** One nutritious meal does not make up for poor nutrition habits leading up the competition

**Purpose:** Top of your fuel stores for optimum energy and mental focus and be in a completely hydrated state

**Pregame meal** 3-4hr before
- Majority whole grains, include lean protein, moderate fat and 16-24oz
  - Oatmeal with berries + an English muffin with peanut butter + Low fat or fat free milk
  - Turkey sandwich with lettuce and tomato + pretzels + apple slices + sport drink
  - Grilled chicken + rice + green beans + fruit salad + low fat milk

**Mini Meal/Larger Snack** 1-3hr before
- Focus on high carbohydrate foods and drinks, moderate amount of lean protein, minimal fat/fiber & ~16oz fluid
  - Yogurt with fruit or tuna crackers with water or Gatorade

**Pre game snack** ~30min before
- Simple carbohydrate to “top of your fuel tank” with 4-8oz fluid
  - Granola bar or applesauce with a few sips of water

*Familiar Foods!*
Fueling During Competition

- Hydrate every 20min
  - ~4oz or 3-4 gulps
- <1hr = water
- >1hr = Sport Drink or Snack
  - Replace Carbohydrate + Electrolyte
  - Ex: Sports Drink, Sports Chew + Water, Pretzels + Water
Fueling after Competition

3 R’s to Recovery:

1. Refuel
   • Glycogen stores with carbohydrates

2. Rebuild
   • Repair and rebuild muscle tissue with protein

3. Rehydrate
   • Fluids & Electrolyte

- Recovery Nutrition within **45min**
  • Carbohydrate + Protein (3:1 or 4:1)
    Ex: Pretzels + String Cheese, Apples + Peanut Butter, Greek yogurt + Fruit, PB&J, Chocolate Milk (25g Carb: 8g Pro)

- Full Balanced Meal within about 2hr
2 Day Tournament Fueling Example

Day 1: Match 8am, 10am, 11am, 1pm
- 5am Breakfast
  - English muffin with PB, hard boiled egg, banana, LF/FF milk
- 7am
  - Apple Sauce + water/sports drink
- 9am
  - Cliff bar + water/sports drink
- 10am-12noon
  - Sports Drink/fruit
- 12noon
  - Pretzels with PB + water/sports drink
- 2pm Recovery snack
  - Chocolate milk
- 3:30pm Lunch
  - Grilled Chicken Sandwich, Baked Potato, fruit, FF/LF milk or water
- 6:30pm dinner
  - Whole wheat pasta with grilled chicken, vegetables, LF/FF cheese, marinara sauce
- 8:30pm night snack
  - Greek yogurt with fruit

Day 2: Match 10am, 11am, 1:30pm, 2:30pm
- 6:00am Breakfast
  - Omelet with vegetables + diced ham, Whole wheat toast, Greek yogurt with fruit, 100% fruit juice
- 8am Mini snack
  - Instant Oatmeal with fruit + water
- 9:30am
  - Granola bar + water/sports drink
- 10am-12 noon
  - Sports drink, sports chews/gels, pretzels
- 12 noon
  - Tuna crackers + chocolate milk
- 1:30pm-3:30pm
  - Sports Drinks/chews/apple slices/pretzels
- 4pm recovery snack
  - Banana with PB + water/sports drink
  - RTD drink
- 6:30pm dinner
  - Salmon, broccoli, rice, roll + water or LF/FF milk
- 8:30pm night snack
  - Smoothie with fresh fruit and Greek yogurt and LF/FF milk
Sports Nutrition for Volleyball Athletes

• Consistency!
• Eat 2-3 hours
• Aim to achieve a performance plate for at least 3 meals a day
• Carbohydrate + Protein snacks
• Hydrate!
• Fill your energy stores with carbohydrates
• Restore and Recovery with carbohydrates and protein
Questions?

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