

Nutrition Strategies for Wrestling

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Fueling Fundamentals

Purpose

- What are your training objectives?- Focus your fueling for your training

Quality

- Nutrient-dense foods that sustain energy

Quantity

- Eat enough to meet the demands of training

Timing

- Balance eating throughout the day, specifically pre/post workout to meet training demands and recovery

Consistency

- Will help support metabolism

Hydration

- Learn your sweat rate for individual hydration needs

What are macronutrients?

Do they differ depending on the sport/position I play?



Where do they come from?

Am I supposed to "count" them?

How much do I need?

Carbohydrates are....FUEL

WHY are they important?

- Primary source of fuel for athletes
- Replenish energy stores during recovery period
- Help performance when consumed in the appropriate amount (30-60 g/h) during training or competition lasting more than an hour
- Small amounts taken with water can help promote fluid absorption

Sources

Breads
Pasta
Rice
Potatoes
Beans
Fruits & Vegetables
Sweets

Gels & chews
Drink powders

How Much?

- Aim for 2/3 of each meal to be from carbohydrates sources
- Include carbohydrate in snacks and drinks



WHEN?

- Several hours before activity — eat a meal rich in carbs (e.g., pasta)
- Up to 1 hour before activity — eat a small snack (e.g., granola bar or banana)
- During practices and games lasting 60 minutes or longer
- After activity — eat a snack (e.g., protein bar, smoothie, Greek yogurt) that contains carbohydrates and protein for recovery

Protein is...STRUCTURE

WHY is it important?

- During training and competition, muscle proteins are broken down and need to be built back up
- Eating protein post-activity provides the building blocks needed to rebuild muscles
- Good recovery will help your body recharge for the next game/practice



Sources

- Meat
- Fish
- Soy
- Cheese
- Protein Bar
- Tofu
- Milk
- Eggs
- Greek Yogurt

How Much?

- About 1/3 of each meal should be protein
- 1.2-2.0 g/kg body weight (depending on sport, position, goals, etc)

WHEN?

- To maximize muscle growth, consume around 20–30 grams of high quality protein as soon as possible after training and every 3-4 hours while you are awake.

Fat is...ESSENTIAL

WHY is it important?

- Can be used as a fuel source for low/moderate intensity exercise
- Needed for healthy growth and development
- Lowers inflammation in the body

How Much?

- No specific fat needs, usually expressed as 20-35% of diet

Sources

- Fatty fish (tuna, salmon)
- Olives/Olive oil
- Nuts and nut butters
- Flaxseed
- Avocado



WHEN?

- Add healthy fats at each meal to promote overall health

Building your plate



SOURCE: United States Olympic Committee Sport Dietitians
University of Colorado Sport Nutrition Grad Program

JOURNAL

Preseason



Determine your target weight

Through normal training your body will naturally have shifts of up to 2 to 3% or more of your body weight in a single workout

A target weight approximately 5% above your weight class will enable you to maintain your size and strength



Fuel Contributions for Weight Loss

Protein (High)- 1.5 -2 g/kg body weight; evenly throughout the day to support muscle maintenance.

Carbohydrates (Moderate)- 4-6g/kg body weight; to enable the calorie deficit necessary to burn body fat.

Fat (Low)- 15 to 25% of overall calories.; still include some plant and fish fats but limit animal fats

Fruits and Vegetables- Include these at every meal to obtain micronutrients for recovery and fiber for increased satiety and fullness at meals.

In-season

Once target weight is reached, weight maintenance should become your nutrition focus.

- Balancing calories and adjusting fuel types to support training and recovery needs.

Fueling Contributions for Weight Maintenance

- Carbohydrates (Moderate to High)-5-8g/kg body weight
- Protein (Moderate to High)- 1.2-2g/kg body weight
- Fat (Moderate). Include heart-healthy fats from plant and fish sources to reduce inflammation and support recovery.

Making Weight

Don't ...

Eliminate meals or snacks to cut calories.

Wait until the season arrives to begin your weight management plan.

Save calories for the end of the day.

Allow "cheat days" to destroy your weight management.

Remain in a calorie deficit or carbohydrate-restricted state throughout the season.

Allow weight cutting to interfere with your training.

Allow your body to dehydrate more than 24 hours before weigh-ins.

Do ...

Develop a weight management and descent plan early.

Determine a target weight that is appropriate for you.

Monitor your weight before and after practice to establish your practice weight fluctuation. This will help you to develop your "target weight."

Maintain a regular and balanced eating pattern all season long, especially after a tournament or match.

Focus on recovery fueling immediately after training, especially if in-season.

Develop and practice a refueling and rehydration plan for after weigh-ins.

Take a multivitamin to fill any possible nutritional gaps.

Making Weight

- Fuel Contributions Pre-Weigh-Ins (24 to 48 hours)
 - Protein (2g/kg)-Protein promotes muscle recovery.
 - Fat (High)- Oils, fish and plant fats are best for filling calorie needs and reducing inflammation.
 - Sodium (Low)- Minimize sodium found in added salt and processed foods.
 - Carbohydrate (low overall, ~300g the night before)- slow digesting carbs from high fiber sources
 - helps shed the water bound in glycogen that makes muscles heavy, allowing lean tissue to be spared. post-weigh-in fueling will help replenish your partially depleted glycogen stores.
- Hydration- Hydrate throughout the entire week of training.
 - Only during the final 24 hours of pre-weigh-ins should you allow mild dehydration by incompletely replacing fluid lost through sweat. This can be done by adjusting food and fluid composition without drastically cutting calories. Using your target weight, you can ensure that excessive dehydration will be avoided.

Post weigh-in/Pre-match Fueling

3 HOURS BEFORE COMPETITION

- A. Carbs: 0.5 – 1 Gram/Lb of Body Weight.
- B. Fast Digesting Starches, Low Fiber
- C. Minimal, Low Fat Protein
- D. **Sample Foods: Cereals, Bread, Crackers, Milk, Fruit, Juices, Jelly**

1 HOUR BEFORE COMPETITION

- A. Emphasize Liquids.
- B. Easy-To-Digest Carbs
- C. Avoid Protein, Fat And Fiber
- D. **Sample Foods: Sport Drinks Diluted With 50% Water, Energy Bars, Tolerated Fruits That Are Fast Digesting.**

IMMEDIATELY BEFORE COMPETITION

- A. Carbs
- B. **Sample Foods: Sport Drinks Diluted With 50% Water, Energy Bars**

DURING COMPETITION

- A. 30 – 60 grams carbs per hour
- B. Carbohydrate + Electrolyte or Carbohydrate + Electrolyte + Protein
- C. **Sample Foods: Protein Shake, Energy Bars, Sports Drinks, Fruits, Slow Digesting Fiber Rich Starches, Lean & Medium Fat Proteins.**

NUTRITION IDEAS FOR WRESTLERS

ALL-DAY TOURNAMENT NUTRITION

During all-day tournaments it is important to stay energized throughout the entire day without feeling “weighted down.” That necessitates athletes “grazing” throughout the day by eating, and drinking, small amounts frequently. It is extremely important for athletes to drink an adequate amount of fluids during a tournament. Energy and fluid needs can be met by drinking juices and sports drinks. Energy needs can also be met by eating easily digested foods that are also high in complex carbohydrates.

Time period between events:

Best foods to eat:

1 hour, or less

Water or sports drinks containing no more than 70 calories per 8 ounce serving.

1 - 2 hours

Water, sports drinks, unsweetened fruit juices, vegetable juice, fruit such as apples, oranges, watermelon, or grapes.

2 - 3 hours

Water, sports drinks, unsweetened fruit juices, vegetable juice, fruit such as apples, oranges, watermelon, or grapes, bagel, whole-wheat bread with jam, muffin.

3 - 4 hours

Water, sports drinks, unsweetened fruit juices, vegetable juice, fruit such as apples, oranges, watermelon, or grapes, bagel, whole-wheat bread with jam, muffin, bread with peanut butter or cheese, bowl of cereal with skim milk, low fat yogurt.

4 hours, or more

Any of the above, or lean meat sandwich, or pre-competition meal.

ALL-DAY TOURNAMENT FOODS SHOULD BE HIGH IN CARBOHYDRATES AND LOW IN FAT AND PROTEIN.

Fuel Examples

Carbohydrate

- Animal Crackers
- Crackers
- Lara Bars
- Cliff Bars
- Pretzels
- Fig bars
- Bananas & other fresh fruit
- Fruit Cups
- Dry cereal
- Granola Bars
- Sports Drinks
- Popcorn
- Oatmeal cookies
- Juices
- Breads and bagels
- Oatmeal

Protein & Fat

- Jerky (Ostrim)- sodium and potassium
- Protein powder mixed with water
- Sliced lean meat- chicken/turkey
- Nuts/trail mix
- Nut Butter
- String Cheese

Sodium

- Jerky (Ostrim)- sodium and potassium
- Pickles
- Tomato juice
- Potato Chips
- Sports drinks- Liquid IV, Nuun, Skratch labs, Biosteel, etc
- Salt tabs

Dietary supplements- Protein Powder

Whey	Casein	Egg	Soy	Other plant-based
Milk derivative	Milk derivative	Egg derivative	Soybean derivative	Chickpea, fava bean, pea
Digested at faster rate	Slower to digest	High quality protein	Lacks AA methionine; high content of other AA	"Incomplete" protein
Simulates protein synthesis	Helps decrease protein breakdown	Mixes very easily	Lower total protein content than milk derivatives	Lower total protein content than milk derivatives
Perceived as higher quality protein (high BCAA content)	Often combined with Whey in supplements	Poor taste	Contains antioxidants	Great for vegan or plant-based athletes
Better mixing characteristics		Expensive	Great for vegan or plant-based athletes	

Dietary supplements

- **Creatine**

- The most popular dietary supplement
- Has been proven to improve performance, increase lean body mass
- Safe in recommended dosages
 - Loading phase- 20g (or 0.3 g/kg body weight), divided into four doses per day for 2-7 days
 - Maintenance phase- 2-5g (or 0.03g/kg) per day for several weeks to months.
- Side effects: water retention, weight gain (from muscle mass or water?)

Sports Nutrition Services at SLUHN

Individual Counseling

- Initial body composition testing with the remaining time to review body comp results, calorie & macro needs, nutrition goals (no more than 1h)
 - follow up meetings can be scheduled individually at that time.

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