

# **Performance Nutrition for Wrestlers**

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**Think about the last thing you ate...**

**Taste**

**Texture**

**Sight**

**Smell**

**Culture**

**Tradition**

**Media and Advertising**

**Convenience**

**Habits**

**Nutrition**

# **Building the Foundation**

# Foundations of Performance Nutrition

The  
“other stuff”

+ Sleep

Nutrient timing

- Stress

Food choices

Energy balance

# Foundations of Performance Nutrition

**Energy  
balance** + **Food  
choices** + **Nutrient  
timing**

# **Foundations of Performance Nutrition**

# **Energy balance**

# Energy Balance

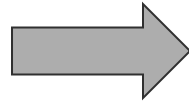
*Energy In*



Food



Drinks



*Energy Out*

Energy Burned at Rest

Energy Burned  
Through  
Daily Activities

Energy Burned  
Through Exercise

# Energy Balance

Energy In > Energy Out = Weight Gain  
**Best for off-season muscle growth**

Energy In = Energy Out = Weight Maintenance  
**Best for in-season performance**

Energy In < Energy Out = Weight Loss  
**Best for short-term, moderate cutting**



**Excessive  
Fatigue**

**Reduced Muscle  
Growth**

**Muscle  
Weakness**

**Overuse Injuries**

**Weak Immune  
System**

## **Signs of Improper Fueling**

**Stress  
Fractures**

**Feeling Anxious  
or Irritable**

**Difficulty  
Sleeping**

**Constant Thoughts  
About Food**

**Digestive  
Problems**

# Foundations of Performance Nutrition

**Energy  
balance** + **Food  
choices** + **Nutrient  
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# **Foundations of Performance Nutrition**

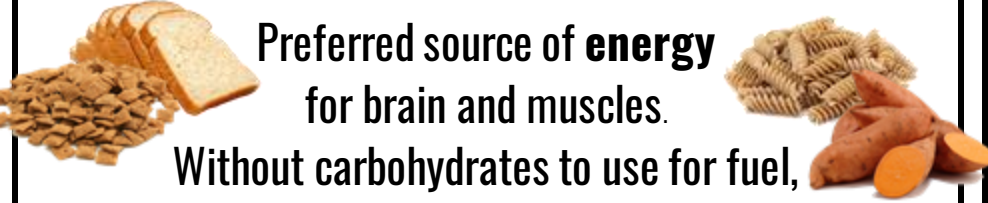
# **Food Choices**

## Carbohydrates

Preferred source of **energy**  
for brain and muscles.

Without carbohydrates to use for fuel,  
the body breaks down muscle for energy.

Carbohydrates are **fast digesting** for fast fuel.



## Protein

Essential building block for muscle repair,  
tissue healing, immune health, and more.

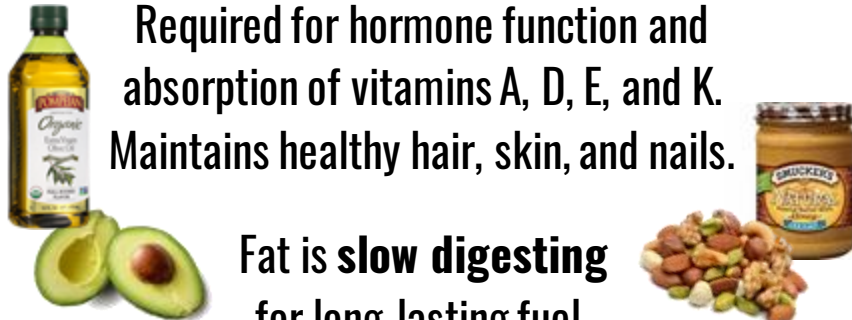
Protein has a **medium digestion speed**.



## Fats

Required for hormone function and  
absorption of vitamins A, D, E, and K.  
Maintains healthy hair, skin, and nails.

Fat is **slow digesting**  
for long-lasting fuel.

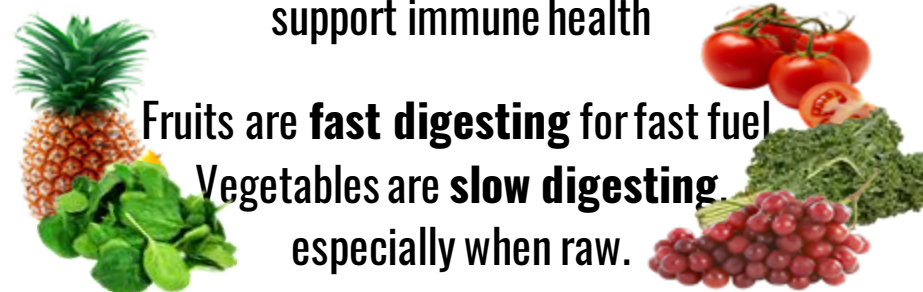


## Fruits and Vegetables

Speed recovery, reduce soreness,  
support immune health

Fruits are **fast digesting** for fast fuel

Vegetables are **slow digesting**  
especially when raw.



# Hydration Tips

## Water plays important roles in an athlete's body

- Makes up 55-60% of body weight
- Regulates body temperature
- Transports nutrients through the body

## Effects of dehydration

- Less oxygen to the muscles = decreased performance
- More lactic acid = more soreness
- Faster fatigue
- Heat cramps, heat exhaustion, and heat stroke



# How much hydration do I need?

## Hydrate early and often

- Start drinking water when you wake up
- Carry a water bottle throughout the day

## Hydrate before, during, and after exercise

- 16 ounces before
- 3-4 gulps every 15 minutes during
- 16-32 ounces after

**32 ounces looks like this:**



# The Scoop on Sports Drinks

- Sports drinks provide **fluids, electrolytes, and simple carbohydrates**
- Sports drinks are used to:
  - Replenish fluids and electrolytes lost with intense sweating
  - Provide muscles with carbohydrates after stored carbohydrates are used up
- **When should I have a sports drink?**
  - Intense exercise longer than 60-90 minutes
  - Exercise in extreme heat or humidity

**Sports drinks are sweetened beverages, similar to soft drinks.**

- High in energy and added sugar
- Low in nutrients
- Used in moderation before, during, and after exercise



## Nutrient dense foods:

- Provide energy ***PLUS*** vitamins, minerals, and fiber
- ***Decrease inflammation*** to improve performance and recovery



## - Nutrient poor foods:

- Provide energy ***WITHOUT*** vitamins, minerals, and fiber
- Can ***increase inflammation*** to impair performance and recovery

**All foods can fit in an athlete's diet, but remember to fuel with a purpose.**

Find nutrient-dense foods that taste delicious, and choose them 80% of the time.

Be flexible and enjoy your food. Incorporate your favorite treats in moderation.



# Foundations of Performance Nutrition

**Energy  
balance** + **Food  
choices** + **Nutrient  
timing**

# **Foundations of Performance Nutrition**

# **Nutrient Timing**

# Nutrient Timing

An athlete needs **fuel** (a meal or snack) **5-6 times/day, or every 2-4 hours**, to support performance, recovery, and optimal body composition.

Special focus should be placed on the pre- and post-workout meal or snack.

# Foundations of Performance Nutrition

Energy balance + Food choices + Nutrient timing

*Let's put this into practice...*

**Meals**

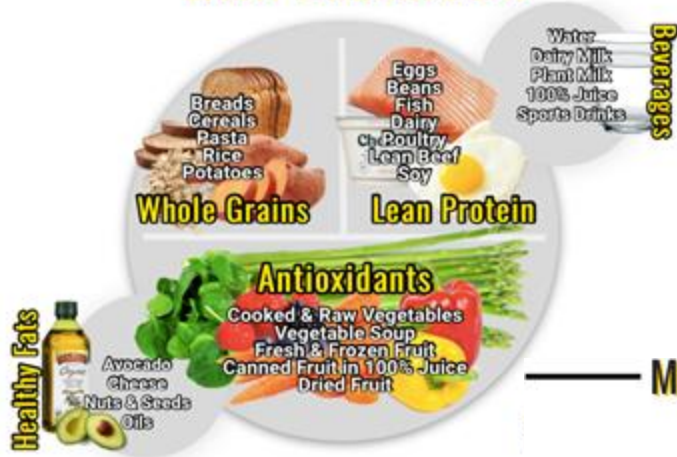
**Pre-Workout**

**Post-Workout**

**Snacks**

# Building Performance Meals

## LIGHT TRAINING DAY



## HEAVY TRAINING DAY



## MODERATE TRAINING DAY



**Is this a performance plate?  
If not, how can we improve it?**



**Is this a performance plate?  
If not, how can we improve it?**



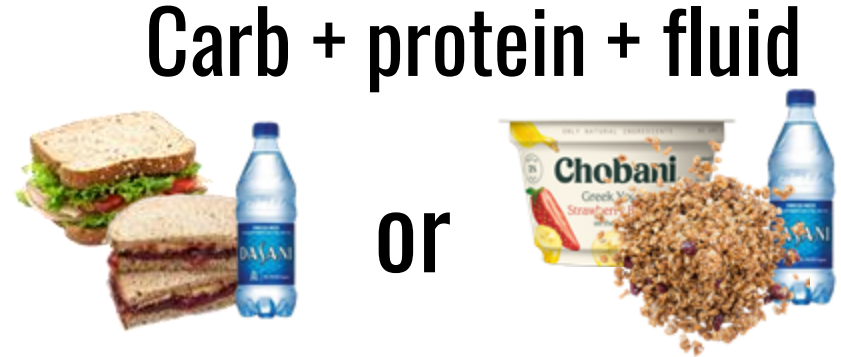
**Is this a performance plate?  
If not, how can we improve it?**





## Pre-Workout Snack

## Post-Workout Snack



1. Provides quick energy, sustains performance, and improves endurance.
2. “Saves” muscle from being used as fuel.

1. Replenishes glycogen to recover faster
2. Rebuilds and repairs muscle
3. Rehydrates to transport nutrients

# Which option would be the best pre-workout snack?

**A.**



**B.**



**C.**



# Which option would be the best post-workout snack?

**A.**



**B.**



**C.**



# Snacks between meals

## What? Protein + carb, fruit, or vegetable

- Choose carb on hard workout days
- Choose fruit or vegetable on lighter days or when cutting
- Add healthy fats to meet high energy needs



## When? Between meals and before bed

## Why?

1. Supports metabolism
2. Improves mood, productivity, focus
3. Prevents PM overeating



# Athlete's Fueling Schedule: Every Meal Counts

**Start with Breakfast:** Stops overnight muscle breakdown and provides fuel for the day.

**Pack Snacks:** Fill in the gaps, keep you full and focused, support positive energy balance and provide fuel for muscle building.

**Fuel Up at Lunch:** Keeps you full and focused in class and provides energy for practice.

**Pre-Fuel Snack:** Tops off energy stores for practice.

**Recovery Snack:** Helps you rebuild and recover after practice.

**Be a Winner at Dinner:** Continues the rebuild and repair process.

**Bedtime Snack:** Supports overnight recovery, improves sleep

# **Making Weight**

# Making Weight

## Gradual weight loss is the best

- **Moderate** calorie deficit = maintain optimal performance, lower the risk of injuries, maintain muscle
- **Excessive** calorie deficit = poor performance, higher risk of injuries, muscle loss
- Aim for 2-4 pounds of weight loss per week
  - 2 pounds max of body fat
  - 2+ pounds of fluid, depending on body size

## Maintain hydration as long as possible

- Prolonged dehydration = retain water
- Adequate hydration = easier to drop fluids

# Making Weight

## Week of Competition

- Gradually **decrease sodium** intake during week to reduce water retention
  - Chips, crackers, jerky, etc.
  - Lunch meat and processed meats
  - Canned soup
  - Microwave meals
  - Fast food and restaurant meals
- **Stay hydrated** until your final workout; do not start decreasing fluid until 24 hours out
- **Reduce calorie intake** by up to 15%, but maintain fueling schedule
  - **At meals:**
    - Increase portions of lower-calorie foods like fruits, vegetables, lean meats, eggs, etc.
    - Reduce portions of nutrient-dense higher-calorie foods like pasta, rice, cheese, dressing, oils, nuts, nut butter, etc.
    - Minimize fast-food, fried food, restaurant meals.
  - **At snacks:**
    - Increase lower-calorie foods like fruits, vegetables, yogurt, cottage cheese, etc.
    - Reduce portions of nutrient-dense higher-calorie foods.
    - Minimize chips, crackers, candy, baked goods, sugar-sweetened drinks.



# Making Weight

## Day Before Competition

- Choose low-sodium foods to reduce water retention
- Choose lower-fiber foods to reduce digestive bulk
- Include carbohydrates at each meal but reduce portions

## Post Weigh-in Fueling:

- 1. Rehydrate:** Drink 20+ ounces immediately post weigh-in; heavy sweaters supplement with electrolytes
- 2. Refuel:** Choose performance-boosting foods
  - Focus on carbohydrates for fuel
  - Choose foods that provide the best “bang for your buck” (lower-volume, higher-calorie)
  - Choose low fiber and fat to prevent digestion issues

# Fueling at Meets

## **30-60 minutes before competition:**

- Choose quick-digesting **simple carbohydrates**
- Choose **liquid or soft options** (easiest to digest)
- **Examples:** Sports drink, applesauce, fruit snacks, chewy granola bar, banana

## **2-3 hours before competition:**

- Choose **mix of simple and complex carbohydrates**
- Choose **solid options** (medium digestive time)
- **Examples:** Bagel with jam or honey, higher calorie granola bar (Clif, Nature Valley, etc.)

## **4+ hours before competition:**

- Choose a meal with **high carbohydrates, moderate protein, low fat, and fluid**
- **Example:** Lean meat sandwich w/ fruit, pretzels, and water/sports drink

**ALWAYS SIPPING ON FLUID- HYDRATION IS KEY!**

**Which option would be the best 4 hours before competition?**

**A.**



**B.**



**C.**



Which option would be the best 2 hours before competition?

**A.**



**B.**



**C.**



**Which option would be the best 30-60 minutes before competition?**

**A.**



**B.**



**C.**



# Navigating Concession Stands

## It's always best to bring your own snacks...

- Practice your fueling strategy and bring foods your body is used to! This means less risk of digestive issues on meet day.
- Bring **carbohydrate snacks** (fresh or dried fruit, granola bars, pretzels, applesauce, etc. for **between events**).
- Pack a **performance plate** (lean meat or PB&J sandwich, bagel w/ PB, cereal and milk, etc.) for **meals**.

## If you **DO** eat from the concession stands...

- Limit slow-digesting high-fat foods like pizza, nachos, hot dogs, etc.
- Steer clear of carbonated beverages (soda), which can cause bloating
- Look for fruits (apples, bananas, etc.) and granola bars between events

# **When you optimize... Energy Balance + Food Choices + Nutrient Timing**

- Increased energy for performance (avoids burning muscle for fuel)
  - Increased muscle growth and repair
  - Reach performance weight at important times
- Improved concentration and focus (avoids “bonking”)
  - Improved mood (avoids “hanger”)
    - Reduce risk of injuries

**Would you skip a practice or lift?**

**Don't skip meals or snacks either- they are part of your sport!**

**Questions?**



# Contact Information



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**Feel free to reach out with further questions or inquiries about one-on-one nutritional counseling with UIHC Sports Medicine.**