

# ELITE NUTRITION HABITS FOR SWIMMERS

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## INTRODUCTION

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## TODAY'S AGENDA



- Introduction + Background
- Fueling Foundations
- Macronutrients
- Performance Plates
- Nutrient Timing
- When to see a Dietitian
- Q+A

*Disclaimers:*

*This presentation is meant to serve as general nutrition advice. It does not replace individualized care of a registered dietitian or medical doctor. Each individual is different. All ranges presented are simply ranges and starting guidelines based on current nutrition research. Any questions should be directed to Rayanne at [sportsRDrayanne@gmail.com](mailto:sportsRDrayanne@gmail.com).*

*Rayanne does not represent, or act on behalf of any university or collegiate program. This includes anything related to recruiting prospective student-athletes.*

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## SPORTS NUTRITION 101

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# FUELING FOUNDATION



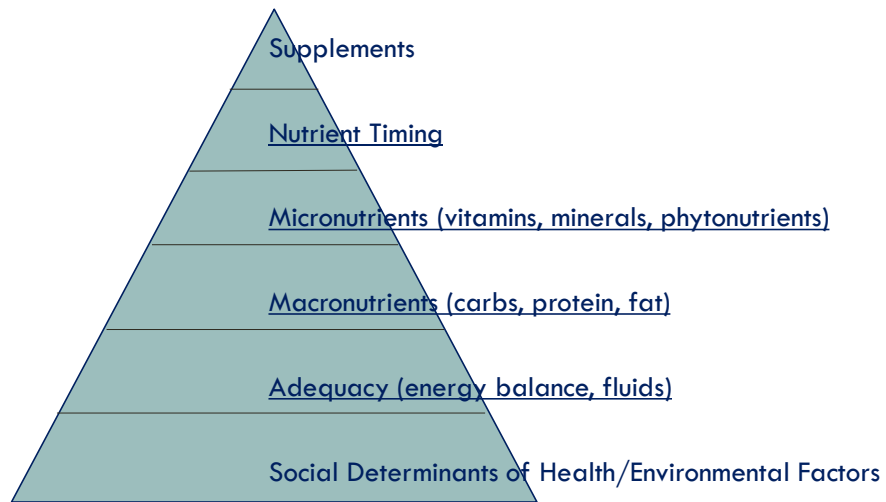
- Adequacy
- Consistency
- Variety

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# FUELING FOUNDATION



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## ADEQUATE ENERGY



Athletes have higher energy (calorie) needs than their peers, and swimmers have particularly elevated needs considering training type, duration, and intensity.

There are a lot of variables that affect the ability to consume adequate energy including access to food, time to cook/eat, schedule, transportation, cost, interest in food, medical conditions, etc.

Adequacy for most swimmers looks like:

- 3-4 meals + 2-4 snacks per day (eating every 2-4 hours)
- Hydration and electrolytes
- Variety of intake to reach needs

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## MACRONUTRIENTS

Carbohydrates, protein, and fat make up the core nutrients of our diet:

- Carbs are the main source of energy for an athletes' body (muscles) and brain.
- Protein is important for muscle growth, tissue repair, various chemical and metabolic reactions in the body.
- Fat aids in satiation, thermoregulation, immune function, hormone production, protecting our vital organs, the absorption of vitamins and minerals, and as a source of energy.

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## SMALL GROUP DISCUSSION



- Name 2 examples of:
  - Carbohydrates
  - Proteins
  - Fats
- Share your favorite carbohydrate food

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## CARBOHYDRATES

- Bread
- Pasta
- Rice
- Cereal
- Grains
- Fruit
- Dairy
- Beans
- Juice
- Sports drinks
- Desserts
- Crackers
- Bars
- Candy
- “Sugar”

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## PROTEINS

- Meat (pork, beef)
- Fish & Shellfish
- Poultry (chicken, turkey)
- Dairy
- Eggs
- Soy
- Beans
- Nuts
- Seeds
- Plant based proteins
- Protein bars, powders, drinks, and supplements

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## FATS

- Nuts
- Seeds
- Nut butters
- Avocado
- Oils
- Butter
- Fatty fish (salmon, tuna, mackerel)
- Combo protein + fat items (ex. meats or dairy)

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## MICRONUTRIENTS

Micronutrients refers to the essential vitamins, minerals, and phytonutrients our body needs.

Examples: Vitamins A, B, C, D, E, Iron, Calcium, Magnesium, Zinc

Micronutrients come from a variety of food sources, often produce related items, so the best way to ensure adequate consumption is to eat a VARIETY of foods.

**Produce: Aim for multiple colors of fruits and vegetables at each meal, throughout a day, and during the week.**

It may be helpful to work with your doctor or sports RD if you are concerned about a specific deficiency or have dietary limitations/food allergies (ex. vegetarian, vegan, Celiac, iron deficiency anemia)

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## SMALL GROUP DISCUSSION



•Name a fruit or vegetable that is predominantly the following color:

- Red
- Orange
- Yellow
- Green
- Blue/Purple

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# PRODUCE

Colors	Foods
Red	Tomatoes and tomato products, watermelon, guava
Orange	Carrots, yams, sweet potatoes, mangos, pumpkins
Yellow-orange	Oranges, lemons, grapefruits, papayas, peaches
Green	Spinach, kale, collards, and other greens
Green-white	Broccoli, Brussels sprouts, cabbage, cauliflower
White-green	Garlic, onions, chives, asparagus
Blue	Blueberries, purple grapes, plums
Red-purple	Grapes, berries, plums

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## Performance Plate Variations

This is a starting place for most meals and should be adjusted based on tolerance and goals. It is inferred that hydration and functional fats are also present at each meal.

The focus on produce allows for increased vitamins, minerals, and anti-inflammatory compounds for recovery

This balanced plate ensures consumption of each category

The emphasis on carbs here may be helpful on busier days or those that require more energy

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# SMALL GROUP DISCUSSION



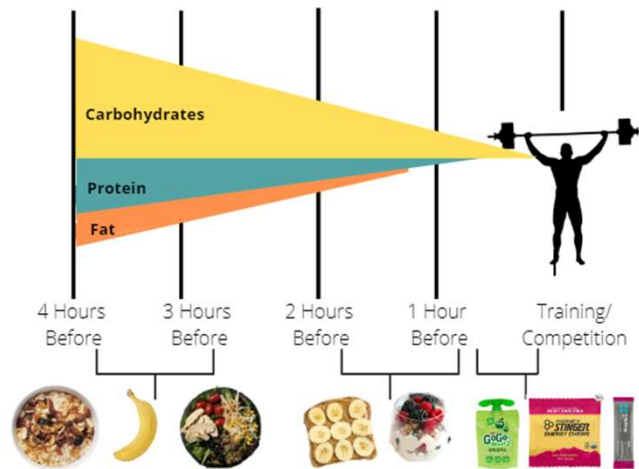
- Share your favorite pre-meet snack or meal.

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# NUTRIENT TIMING EXAMPLE: PRE-PRACTICE FUELING



**PRE/DURING:**  
QUICK DIGESTING CARBS



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# NUTRIENT TIMING EXAMPLE: RECOVERY POST TRAINING

## POST training

Within 30-60 minutes of completing training/competition, consume both carbs and protein, in a ~3-4:1 ratio.



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**REFUEL** with carbohydrates

**REPAIR and REBUILD** with 15-30 grams of protein

**REHYDRATE** with min. 16-24 oz fluids and electrolytes lost

- Popcorn
- Fig newton
- Pretzels
- Granola
- Oats
- Rice
- Pita bread
- Wholegrain crackers

- Fresh fruit
- Dried fruit
- 100% fruit juice
- Chocolate milk
- English muffin
- Bagel
- Bread
- Dried cereal
- Granola bar

- Milk
- Deli meat
- Greek yogurt
- Hummus
- Nut butter
- Eggs
- Jerky
- Nuts/Seeds

- Edamame
- String cheese
- Beans
- Cottage cheese
- Tuna packet
- Tofu
- Lentils
- Fish
- Protein powder

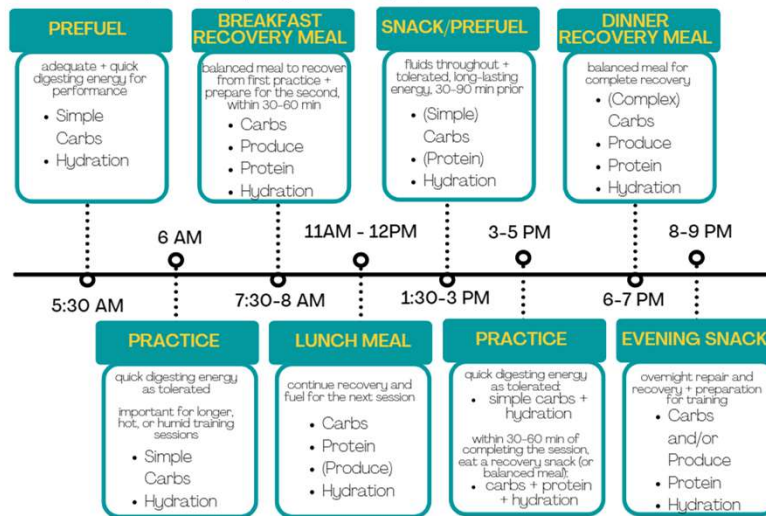
**AIM TO EAT 30-60 MINUTES OF COMPLETING A TRAINING SESSION**

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# NUTRIENT TIMING EXAMPLE: PUTTING IT ALL TOGETHER

\* examples listed here are general guidelines. work with your sports dietitian for individualized recommendations.\*



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## WHEN TO UTILIZE THE EXPERT



If you find yourself...

- Unsure of what to consume and when
- Struggling to identify foods you like
- Find yourself avoiding certain foods or food groups (not for an allergy or religious reason) or skipping meals
- Not feeling healthy in your body – medical signs and symptoms, poor performance
- Struggling with your relationship to food and your body
- Comparing yourself to others and extra critical of your body

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## KEY TAKEAWAYS



- Eat throughout the day
- Carry a water bottle with you
- Aim for balanced meals that contain produce (micronutrients), protein, carbs, functional facts, hydration
- Eat a snack 30-60 min prior to training and within 30-60 min of completing training (meal or snack)
- Adequate sleep!
- Use your resources
- Recognize that your words have power – check in on your teammates, friends, and family

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## RESOURCES

- Collegiate and Professional Sports Dietitian Association (CPSDA)  
<https://sportsrd.org/>
- Academy of Nutrition and Dietetics (AND)  
<https://eatright.org>
- Gatorade Sports Science Institute (GSSI)  
<https://www.gssiweb.org/en>
- Team USA Nutrition  
<https://www.teamusa.org/nutrition>
- National Eating Disorders Association (NEDA) - Coach and Trainer Toolkit  
<https://www.nationaleatingdisorders.org/sites/default/files/Toolkits/coachandtrainertoolkit/index.html>
- Nancy Clarke's Sports Nutrition Guidebook  
<https://nancyclarlkrd.com/>
- NSF Certified for Sport  
<https://www.nsf-sport.com/>
- Sunny Side Up Nutrition Podcast (start with Rachel Manor "Getting Diet Culture out of Sports Culture" episode)

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## QUESTIONS?



**Thank you for your time!**

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# ADDITIONAL INFORMATION

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# NUTRIENT TIMING EXAMPLE: HYDRATION

**DAILY:** Typical minimum 8-12 cups (64-96 oz)

**PRE training**

16-24 oz fluids within 2 hours of training

8 oz within 30 minutes to top off

Beverages with electrolytes may be helpful for hyperhydration

**DURING training**

Water

Sports drink with both electrolytes and carbs

**POST training**

Replenish 16-24 oz fluids per pound lost

Sports drink may be helpful

Rehydration can also be accomplished with a protein + carb recovery drink/smoothie



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## NUTRIENT TIMING EXAMPLE: PRE-FUEL AND RECOVERY

**DAILY:** Carbs and protein throughout the day, at each meal and most if not all snacks

### **PRE training**

Carb-focused snack 30-60 minutes prior to training. Some protein as tolerated.

### **DURING training**

Simple carb (easy digesting) in training/competitions lasting >75-90 minutes; solid or liquid (sports drink, applesauce) form

### **POST training**

Within 30-60 minutes of completing training/competition, consume both carbs and protein, in a ~3-4:1 ratio.

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## FREQUENTLY ASKED QUESTIONS

### **Do I need to eat before my workout?**

Yes! Adequate fuel allows you to train at your best. The good news is that you can work your way up to tolerance. Start with liquid or semi-solid options (sports drink, applesauce, fruit snacks, banana, fig bar, etc).

### **How can I make sure I am fueled throughout the day?**

Most athletes should be eating every 2-4 hours. This may require planning or carrying snacks with you. Shelf stable portable options can include jerky, nuts, nut butters, pb&j, fruit, bars, oats, roasted chickpeas, or shelf-stable milk "boxes."

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## WHAT TO DO IF YOU SUSPECT AN EATING DISORDER

- If you yourself need help, reach out to:
  - An adult you feel comfortable talking with (parent, coach, teacher, counselor, doctor)
  - Online Resources: National Eating Disorders Association (NEDA), Project Heal, Alliance for Eating Disorders, ANAD
  - If you are in crisis and need help immediately, text "NEDA" or "HOME" to 741741 to be connected with a trained volunteer at the Crisis Text Line. They provide free, 24/7 support via text message to individuals who are struggling with mental health, including eating disorders, and are experiencing crisis situations.
  - In the case of an emergency, dial 911 or 988 (suicide and crisis lifeline)
- If you are concerned about a friend, family member, teammate, or child:
  - The initial expression of concern should be done privately and non-judgmentally. Make sure the appropriate person is approaching the person of concern (parent, coach, doctor, friend)
  - Take note of behaviors and symptoms that are concerning (not to criticize or call out, but to confirm or reject your suspicions about their behaviors). Share these privately with the appropriate person.
  - If you are the one to approach the person, do not judge, confront, criticize, or accuse. Instead, check in, offer support, and use "I" statements. ("I've noticed that..." "I'm concerned that..." "I'm wondering about...") Ask open-ended questions to create a conversation ("What do you think about..." "How do you feel..." "How can I help support you?")
  - Offer to help set up the first appointment/next step or go with them

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