



Sports
Performance
Nutrition

PEAKHealth & Fitness



Key Concepts

- Energy Adequacy
- Macronutrient Distribution
- Athletes plate
- Timing
- Hydration

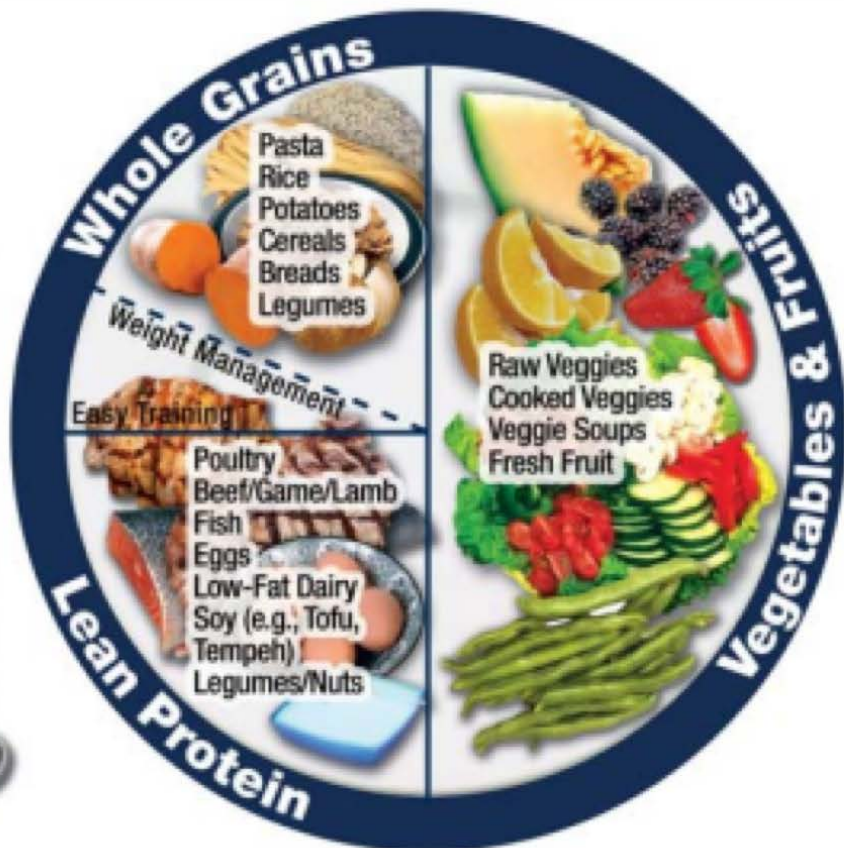
EASY TRAINING / WEIGHT MANAGEMENT:

FATS

1 Teaspoon



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages

Coffee
Tea

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



MODERATE TRAINING:

FATS

1 Tablespoon



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Grains

Pasta
Rice
Potatoes
Cereals
Breads
Legumes



Fresh Fruit
Stewed Fruit
Dried Fruit



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages



Coffee
Tea

Lean Protein

Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu,
Tempeh)
Legumes/Nuts



Raw Veggies
Cooked Veggies
Veggie Soups



Vegetables

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



HARD TRAINING / RACE DAY:

FATS

2 Tablespoons



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Grains

Pasta
Rice
Potatoes
Cereals
Breads



Fresh Fruit
Stewed Fruit
Dried Fruit



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages



Coffee
Tea

Lean Protein

Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu,
Tempeh)
Legumes/Nuts



Cooked Veggies
Veggie Soups
Raw Veggies



Vegetables

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



Carbohydrates/ 5g/ day

- Primary function: ENERGY
 - Brain
 - Muscles
- 50-60% of daily calories should come from carbohydrates
- Having adequate carbohydrate stores (glycogen) is essential for optimal performance



Simple vs Complex Carbohydrates

Simple/QUICK	Complex/SLOW
<ul style="list-style-type: none">● Rapid digestion● Quick boost of energy● Great for “topping” off stores before exercise● Examples:<ul style="list-style-type: none">○ Bananas○ Raisins○ Honey○ Milk○ Yogurt	<ul style="list-style-type: none">● Longer lasting energy● Contain fiber for slow release of energy● Majority of daily carbohydrate intake should come from complex carbs● Examples:<ul style="list-style-type: none">○ Whole wheat bread○ Brown rice○ Oats○ Quinoa

Protein

- Builds and repairs muscle tissue
- Key for bone health
- Aim for both animal and plant protein sources!



Protein requirements

- General recommendation:
 - 1.2 - 1.4 g/kg/day
 - For maintenance
 - Lower intensity training
 - 1.5 - 1.7 g/kg/day
 - Lean tissue accrual
 - High intensity training
 - Initiating a training program

Example:

- 165 lb = 75 kg
- Total protein needs = 90–128 grams per day
- Equivalent to 12 -18 ounces of meat/ day

Sources of Protein

Foods	Protein (g)
Peanut Butter (2 Tbsp)	9
Milk (8 oz)	8
Plain Yogurt (1 cup)	9 – 14
Greek Yogurt (1 cup)	18-21
Chicken Breast (4 oz)	34
Deli Turkey (3 oz)	12
Canned Tuna (3 oz)	21
Cottage Cheese (1/2 c.)	14
Tofu (1/2 cup)	16

Foods	Protein (g)
Beef Jerky (1 oz)	9
String Cheese	7
Lentils (1 cup)	18
Chickpeas (1 cup)	12
Edamame	14
Egg	7
Whole Wheat Bread	4

Fat

- Energy dense nutrient and important part of diet for athletes
- Fuels long workouts
- Metabolically active and important for hormone production
- Helps provide cushion for organs
- Recommendations for fat range from 20 -30% of total daily calories



PreTraining/ Competition Fueling

- Choose Low fat & low fiber
- Find foods you can tolerate
- Include Fluids



PreTraining/ Competition Fueling

3-4 Hours before

BALANCED MEAL

High CHO • Moderate Protein • Low fat

CHO: 1-4 g/cho/kg

Protein: 10-25g

Fat: 0-5g

Fluid: 5-7mL/kg OR

1 oz/5-10% of BW in lbs

Less than 1 hour before

CARB RICH SNACK

15 grams no fiber/quick carbs

Protein: 10-25g (only if this is your first meal)

Fat: 0g

Fluid: Remain euhydrated

Fueling During Training/Competition

	<1 hour	>1 hour
Light Activity	Drink water as thirsty	30-60g CHO/hour
Moderate activity	8-12 oz of a sports drink + water as thirsty	+Salty snack/sports drink
Heavy activity	15-60g CHO/hour + salty snack	Drink as thirsty

Posttraining/competition Fueling

Replenish→Fluid & Electrolytes

Replace→Carbohydrates & Fats

Repair→Protein

- salty snack + 24-32oz of per fluid per lb. BW lost
 - 3:1 CHO: protein

Posttraining/ competition Fueling

Snack + Fluid (within 15-60 minutes)

3:1 Carbohydrate & 10-15g protein

Salty snack & water/sports drink

Meal + Fluid (within next 2-4 hours)

Balance carbs, lean proteins, low fats

Fluid as thirsty



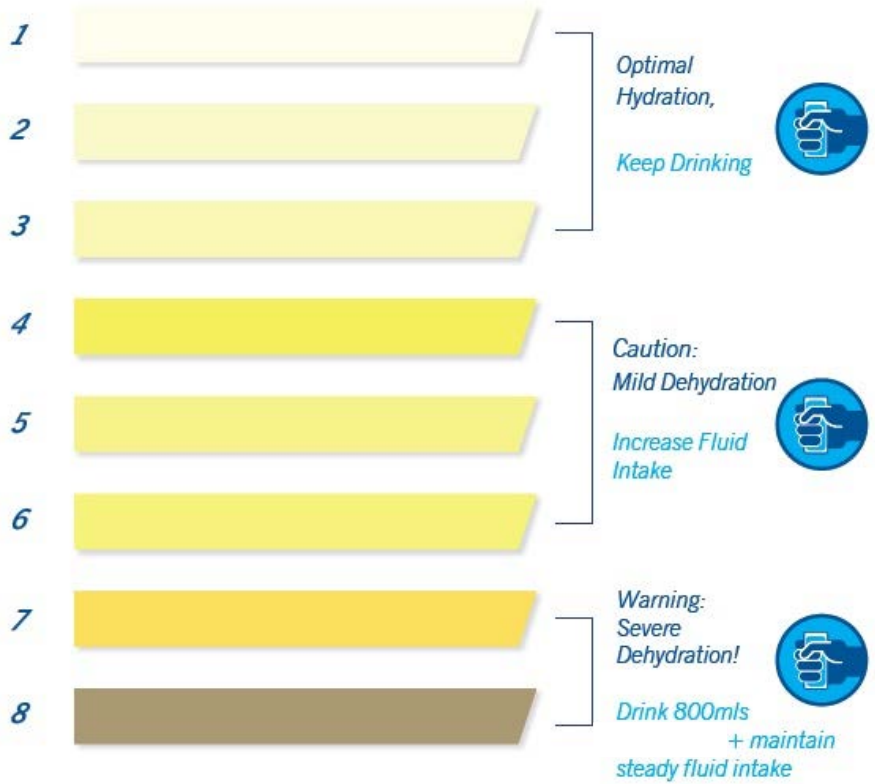
Hydration

- Proper hydration has a huge impact on performance!
- It takes only 2% of body weight in fluid lost to impact performance negatively
- Symptoms of dehydration:
 - Fatigue
 - Headaches
 - Dizziness
 - cramps





Hydration



Common Micronutrient Deficiencies

Iron

- RDA
 - women 19 -50 yo: 18mg
 - men 19 yo+: 8mg
 - Recommended intake for deficiency: 2 -5mg/kg w/ 250mg vit C
- Risks for low iron/higher needs
 - Blood loss (including menstruation)
 - High activity
 - Poor diet
 - Living at high altitude
 - Vegetarian/Vegan diet
- Foods high in iron
 - **Red meat, poultry, certain fish, beans, tofu, enriched cereals**

Key Takeaways

- Energy and macronutrients plays key role in athletic performance!
- Determine appropriate percentage of intake based on your training intensity/duration
- Use athlete plates as guidelines for intake
- Pre, during, and post nutrition will aid in optimal performance
- Don't forget to hydrate!