

extraordinary environment for learning



## **MUSTANG'S GUIDE TO NUTRITION**

*This guide was compiled to provide our student-athletes with knowledge regarding Sports Nutrition, with the end goal of maximizing academic and athletic performance, as well as a healthy lifestyle.*

# MACRONUTRIENTS

**CARBOHYDRATES:** (50-60 % of the daily caloric intake)

Carbohydrates are the #1 source of energy for your body. They enhance your ability to perform prolonged, heavy physical activity by increasing muscle energy stores.

**Sources:** Brown Rice, Potatoes, Whole-Wheat Pastas, Whole-Grain Breads or Tortillas, Steel-Cut Oatmeal, Whole Grains.

**\*Note:** Complex Carbohydrates are preferred over simple sugars because they offer prolonged release of energy throughout the day.

**PROTEINS:** (20-30 % of the daily caloric intake)

High quality proteins enhance the body's ability to repair and rebuild muscle tissue damage as a result of heavy physical activity. They also support skeletal muscle, organ, and bone tissue health.

**Sources:** Chicken/Lean Beef/Fish/Turkey/Nuts/Low-fat Dairy Products

**\*Note:** Protein is essential, but a poor source of energy and excess amounts can be converted into carbohydrates, stored as fat, or excreted through the urine.

**FATS:** (15-25% of daily caloric intake)

Fats provide the body with a sustained source of energy used during moderate activity. They act as carriers for fat soluble vitamins and supply the body with essential fatty acids needed for proper development of the brain, nervous system, and hormone regulation.

**Sources:** Olive Oil/Avocado/flaxSeed/Fish/Dairy/Nuts/Peanuts or Almond butter

**\*Note:** Reducing fat to 10% of your daily requirements or having a diet that consists of little to no fat will decrease testosterone; which decreases your metabolism and muscle development.

**FLUID:** (Purchase a BPA free water bottle and keep it with you at all times, drinking and refilling it all day).

Water is the most important nutrient you can put into your body. It is essential for transportation, digestion, and absorption of nutrients and aids in temperature regulation. **You should be drinking water throughout the day.**

**DRINKING GUIDELINES**

Prior to activity consume 16-18oz of water within a 2 hour window, drink 10/12oz within 15 minutes prior. During activity, drink 10/12oz every 20 minutes depending on conditions. Replenishing fluids after exercise is vital for recovery from activity. Weighing in and out after exercise will identify how much fluid you lost and need to replace. Consume 16oz of fluid per pound of bodyweight lost.

**Sports Drinks:** Sports drinks contain electrolytes that aid in temperature regulation and help muscles contract and relax. They also contain between 5-8% carbohydrates that help maintain energy in the muscles during prolonged exercise.

**\*Note:** Sports drinks should not be a substitute for water.

# MICRONUTRIENTS

## VITAMINS & MINERALS: (5-7 Servings per day)

Vitamins and minerals found in **fruits and vegetables** act as regulators and catalysts for major body functions such as muscle, nerve transmission, digestion, and utilization of other nutrients.

**Sources:** Dark Leafy Greens, Starchy Vegetables, Citrus Fruits, Berries, Melons

**\*Note:** Other good sources of fruits and veggies are anything else that comes from a tree or the ground that is GREEN, YELLOW, ORANGE, PURPLE, or RED.

## MEALS

You should aim to eat 5-7 meals a day. Eating smaller throughout the day will speed up your metabolism, giving your body the energy it needs to fuel and help the body recover. **\*Eating big meals only when you are hungry or skipping meals will cause the body to store more fat and lose muscle.\***

## NUTRIENT TIMING

Nutrient timing is a crucial component to performing at a high level. The application of knowing when to eat and what to eat before, during and after exercise will increase performance and maximize recovery.

- **Energy Phase (1 hour pre-exercise = [10g Protein, 40g Carbs, 250 total kcal])**  
Consuming a pre-workout/practice snack will make your muscles have the energy to perform. Low muscle energy result in muscle fatigue and the body's inability to complete high intensity exercise.
- **Anabolic Phase (Within 30-45 minutes post-exercise = [20g Protein, 80g Carbs, 500 total kcal])**  
During this time, the muscles are ready to ingest the proper nutrients in order to make gains in muscle endurance and strength. This is also when anabolic hormones begin working to repair muscle tissue and decrease inflammation.
- **Growth Phase (Reminder of the day)**  
The goals of this phase are to replenish muscle energy stores and to maintain the anabolic phase. Consuming a protein and carbohydrate rich meal within 1-3 hours after resistance training has a positive stimulating effect on muscle repair, recovery, and growth.

## MAINTAIN, GAIN, LOSE

### Maintain:

- Male: 17-23 calories per pound of bodyweight. Example 200lbs. x 17cal = 3,400 calories to maintain body weight depending on activity level.
- Female: 16-20 calories per pound of bodyweight. Example 130lb. x 16cal = 2,080 calories to maintain body weight depending on activity level.

**Gain:**

- Extra 350-700 calories a day would support a 1-2lb. weekly gain in lean tissue as well as meet the energy requirements for training.

**Lose:**

- Reducing 500-1,000 calories a day would support a 1-2lb. weekly loss. The maximum rate of fat loss is about 1% of bodyweight per week.

**SLEEP**

Sleep is not a passive state of rest, but an active state of rebuilding, repair, reorganization and regeneration. Aside from the fuel we put into our bodies, sleep is the key catalyst in overall recovery and performance in the classroom and in sport. Each student should strive to get at least 8+ hours of high quality of sleep each night.

Tips for high quality sleep:

- Minimize tech time 1 hour before bed – No TV, phone, laptop, iPad, iPad, etc.
- Control the Light – A dark lit room is ideal, blackout curtains can help eliminate light from the room.
- Control the Temp – Cooler room temperature is preferred over warm.
- Control the Noise – Have a fan or sound machine going to create ambient noise that will mask any outside noises.
- Trustworthy alarm clock – If you're worried about oversleeping, you will not get proper rest.
- Fluid Intake – Do not consume a ton of liquids before bed, your sleep will be disrupted when you have to get up and use the bathroom in the middle of the night.

## THE PERFORMANCE GROCERY LIST

PANTRY	REFRIGERATOR	FREEZER
Whole Grain Breads	Water	Frozen Vegetables
Whole Grain Cereals	Fresh Fruit	Frozen Fruits
Cliff Bars	Fresh Vegetables	Frozen Skinless Chicken
Oatmeal	Eggs	Lean Beef
Wheat Crackers	Lean Sandwich Meals	
Pretzels	Poultry	
Whole Grain Rice	Lean Beef	
Potatoes (Red, Sweet, etc.)	Fresh Fish	
Whole Wheat Pastas	Low Fat Yogurt	
Pasta Sauces	Low Fat Milk	
Peanuts, Almonds, Sunflower Seeds	Low Fat Cottage Cheese	
Peanut Butter	Low Fat String Cheese	
Low Sodium Soups	Low Fat grated/sliced cheese	
Canned Tuna, Salmon, Chicken		
Dried Fruits		
Canned Fruits/ Vegetables		