

NAVY OPERATIONAL FUELING



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NOFFS
Navy Operational Fitness and Fueling System



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Introduction

We need a new paradigm for the food we eat. We need to view food as nourishment to our body as opposed to solely calorie units. We need to consider what that food represents in terms of energy and nutrients. Just one food or one nutrient is not the answer to more energy, an optimal weight, better health, and improved performance. The key to success lies in the collection of our habits that fuel our bodies, activities, minds, performance, and most importantly our lives.

There are 5 areas of nutrition focus in the Fueling Series. You will find that the handout series and builder systems revolve around these 5 areas.

Eat Clean Eat Often Hydrate Recover Mindset

1. EAT CLEAN

Eating clean means trying to choose the least processed types of foods most of the time. Typically, the closer the food is to its original form (from the earth or the animal); the better it is for you.

Simply put: Try to eat foods in the most natural form possible.

Nutrient density plays a large role in the mentality of eating clean. Nutrient density is the relationship of the amount of nutrients that a food has to amount of calories. It is critical to try to choose nutrient dense foods as often as we can to ensure we get the nutrients we need. Focus on trying to choose the types of foods that have the highest amount of nutrients for the calories within the foods.

The 3 macronutrients:

Carbohydrate = Fuel

Protein = Build

Fat = Energy Density

2. EAT OFTEN

The key to energy and sustainability (beyond the types of foods you choose) is how often you eat. By eating mini-meals every 2-3 hours, your body is given a steady flow of fuel. The goal here is to maintain blood glucose (fuel) in an optimal range. This will help maintain focus and keep your metabolism roaring all day long. We find that those who eat more frequently have better energy and prevent becoming overly hungry, which can help us make better choices.

3. HYDRATE

It is vital to stay hydrated because the body is 60-65% water which performs numerous vital functions including:

- Providing life and shape to every cell
- Delivery of fuel to muscles
- Lubrication and cushioning of joints
- Aiding in muscle contraction & tone
- Aiding in metabolism and digestion
- Brain function
- Shock absorption for the spine and brain
- Regulating temperature

Consequently, dehydration causes these functions to suffer impairing your health, ability to recover from illness, and athletic performance. As little as a 2% decrease in weight, due to fluid loss, can impair both physical and mental performance.



4. RECOVER

Nutrition can help to speed the recovery process. After a workout your body has emptied its fuel stores and the muscle has been broken down. To gain the most out of your workout and perform at high levels, you need to repair the muscle and replace your fuel stores as quickly as possible.

Getting a combination of carbohydrates and proteins within 30 minutes of your training session will ensure that you are recovering as quickly and efficiently as possible, which will minimize the time needed between sessions and decrease the risk of injury.

Carbohydrate = Re-Fuel

Protein = Re-Build

5. MINDSET

The final piece of optimizing nutrition is focusing on mindset and behavior. All of the education in the world does not matter if it doesn't lead to behavior change. Providing simple lists of the "best" foods to choose, easy guides on portion size, and presenting material in a concise and action-based way will help to give you the tools to immediately start making changes.

As a society we have become enamored with diets. The word diet has many different definitions and is typically associated with managing the calories that you consume or eating in a prescribed or particular way. The word nutrition has a more positive connotation and is typically associated with nourishing the body. The goal of the Fueling Series is not to give out a diet plan. It is to help you focus on your habitual intake and the results of your nutrition habits.

The 80/20 rule promotes balance and the inclusion of all foods. We recommend that you try to consume foods you know will give you the nutrients and sustainable energy you need 80% of the time and then consume whatever it is you want the other 20% of the time. Everything can fit into your daily "diet," your habitual intake. Just keep yourself in check.

THE MEAL BUILDER SYSTEM

The meal builder is an easy way to understand both what and how much to eat at each meal. The essence of the system is for weight control, but we like to think of it more as a fueling strategy to get you to your goals. There are meal builders in the handout series that will assign both males and females to their particular calorie zone. The recommendations in the zones provide a better idea of the amount of food that should be eaten to achieve your goals.

PARTING THOUGHTS

How you eat and what you eat are essential to your daily performance. Having sustainable energy is a function of your commitment to making smart nutrition decisions and fueling your body optimally.

This content for the Navy Fitness and Fueling Series is designed to help Sailors achieve their goals by giving them the tools needed to make choices that will result in the energy they need to perform their jobs on a daily basis.

Eat Clean. Eat Often. Hydrate. Recover. Mindset.



Master these 5 fundamentals and enjoy new found physical and mental performance through nutrition.



THE 10 NUTRITION RULES TO LIVE BY

1. COME BACK TO EARTH.

Choose the least processed forms of food such as; Fruits, veggies, whole grains, and high fiber carbohydrates.

2. EAT A RAINBOW OFTEN.

Eat fruits or vegetables with each meal. Choose a wide variety of colors for the biggest benefit.

3. THE LESS LEGS THE BETTER.

Include a LEAN protein source with each meal.

4. EAT HEALTHY FATS.

Include healthy fats in your diet like olive oil, nuts, natural nut butters, seeds, avocado, fish, flaxseed, and flaxseed oil.

5. EAT BREAKFAST EVERY DAY.

When you eat within 30 minutes of waking up, you jump start your metabolism. This gives you more energy to get your day going.

6. THREE FOR THREE.

Eat smaller portions more often, spread evenly across the day. No excuses – you should be eating 4-6 meals/day! Aim for all three macronutrients (carbs, protein, and fat) every three hours for optimal fueling.

7. STAY HYDRATED.

Dehydration = Decreased Performance. Drink at least 3 liters of non-caloric beverages (water/green tea) every day.

8. DON'T WASTE YOUR WORKOUT.

Have a post-workout recovery meal or shake that combines both carbs and protein immediately after your training.

9. SUPPLEMENT WISELY.

Fuel first and supplement second. If you are not getting what you need through food, add a multivitamin supplement into your daily routine. Create a smart supplementation program that improves your performance without compromising your health or draining your wallet. Before you take any type of supplement, make sure to check in with your doctor or registered dietitian.

10. SLEEP.

Aim for 8 hours of sleep. If you can't get 8 hours daily, consider power naps when you can. The body recovers and repairs best when it is sleeping.

The 80/20 Rule.

Each meal and snack is an opportunity to fuel your body optimally. Choose the foods that are best for you 80% of the time and incorporate some of those foods that may not be the best, but are your favorites, 20% of the time!

THE BIG THREE: CARBOHYDRATE, PROTEIN, FAT

Grains: “Come Back to Earth” • Carbohydrate = FUEL for the brain & muscles

- Main sources are: Breads, cereals, grains, beans, fruits, and vegetables.
- What to look for in a grain: The least processed forms of grain you can find.
- Think brown and found close to the ground!
- The best choices will have more than 3g of FIBER per serving.

The Top 5 Grains



Protein: “The Less Legs the Better” • Protein = Building blocks for our bodies

- Protein builds muscle and maintains the immune system.
- Main sources are: Lean Meats, Low Fat Dairy, Eggs, and Beans/Legumes.
- What to look for: Lean protein sources. Typically the less legs on the animal the protein came from, the better it is for you.
- Try to include a lean protein source with every meal.
- Protein needs increase with activity. Intake ranges from 0.5g (recreational exerciser) to 0.8g (building muscle mass) of protein per pound of body weight. You will never need more than 1g per pound for health or muscle mass gains. The palm of your hand equals about 30-40g of protein.

The Top 5 Proteins



Fats: “Eat Healthy Fat “ • Healthy Fats = Energy Density

- Healthy Fats provide energy, help to regulate blood sugar, improve cholesterol, and keep you feeling full.
- Omega-3 fatty acids improve cognition, decrease inflammation, and enhance heart health. They are considered essential because your body cannot make them, you must get them through food. Omega-3's are found in fatty fish like salmon, trout, and tuna, as well as flaxseed, walnuts, and omega-3 fortified foods.
- Try to get one serving of healthy fat per meal (2 total servings of fatty fish per week).

The Top 5 Fats



CHOOSE YOUR FUEL

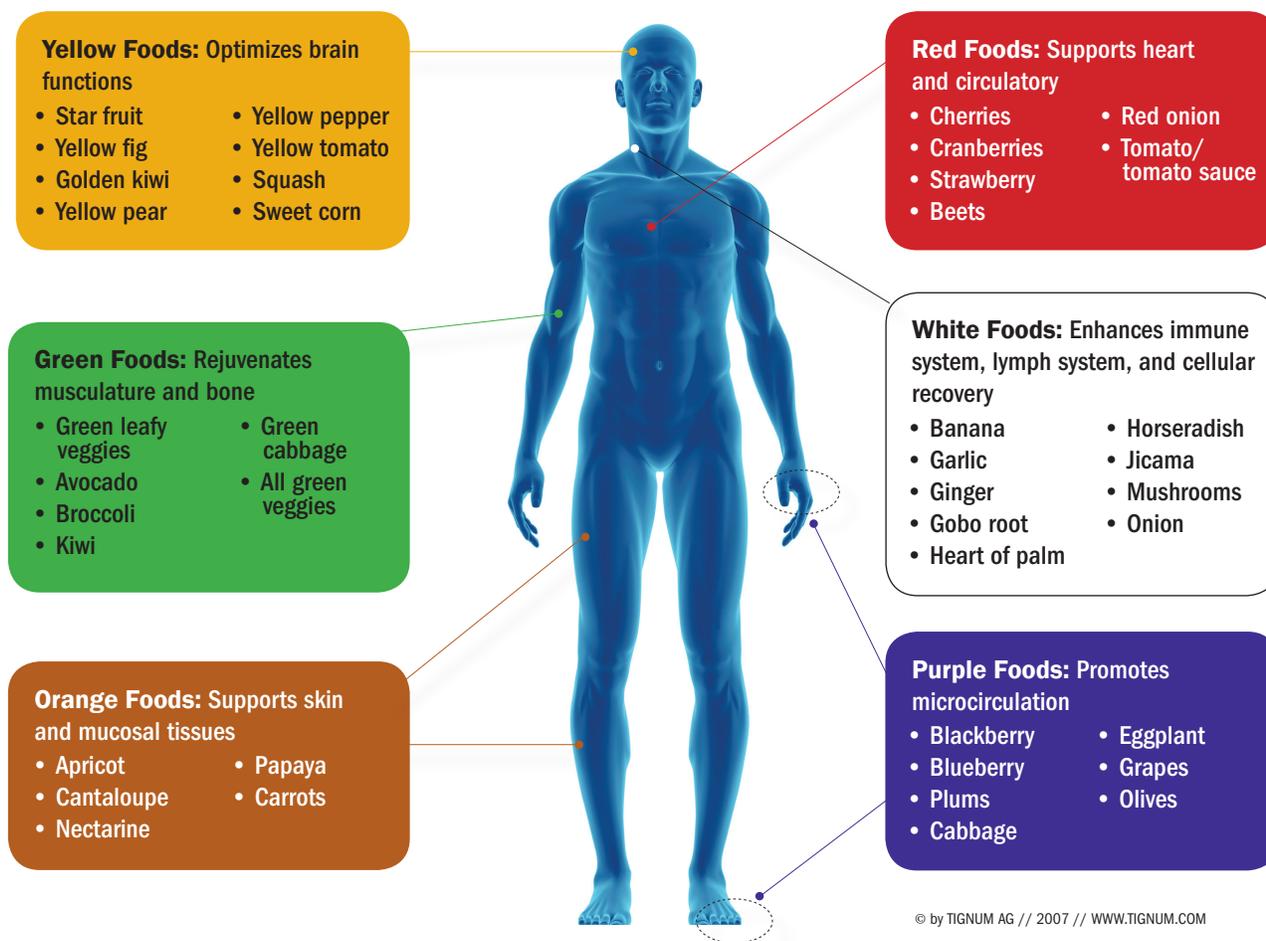
EAT CLEAN

	HIGH OCTANE FUEL: 91	REGULAR OCTANE FUEL: 89	LOW OCTANE FUEL: 87
CARBS (GRAINS)	<ul style="list-style-type: none"> Beans (black, kidney, navy) Chickpeas Black eyed-peas Brown rice Corn Green peas High fiber crackers Lentil, black bean and pea soup Low-fat refried beans Sweet potato/yam Whole grain bread Whole grain bagels Whole grain cereal Whole grain tortillas Whole grain waffles 	<ul style="list-style-type: none"> Baked beans Baked chips Boiled new potatoes Cereal bars Corn tortillas Cornmeal/cornbread Crackers Cream of wheat Flour tortillas French bread French toast Hamburger/hot dog buns Macaroni Pancakes Pasta Pita bread Pretzels Ravioli Rice cakes Spaghetti Waffles White bread White rice 	<ul style="list-style-type: none"> Biscuits Croissants Doughnuts Fettuccini alfredo French fries Hash browns Mashed potatoes Muffins Pop tarts Refried beans Sugary cereals
PROTEIN	<ul style="list-style-type: none"> 95% Ground beef or turkey Beans & peas Chicken, white meat/skinless Deli meat (turkey, ham, beef) Eggs (especially omega 3 eggs) Egg whites Lean beef steak Lean ham steak Lean jerky Low-fat cottage cheese Yogurt Milk: Non-fat and 1% Nut butters: Almond/peanut Non-fried fish Tofu Trimmed pork chops Tuna (in-water) Turkey, white meat/skinless 	<ul style="list-style-type: none"> 85% Ground beef/turkey Chicken, dark/skinless Milk: 2% and low-fat flavored Turkey, skinless/dark Turkey bacon Turkey sausage 	<ul style="list-style-type: none"> 75% Ground beef/turkey Bacon Beef or pork ribs Bratwurst Chicken, with skin Fried chicken Fried fish/seafood Frozen pizza Ham on bone Regular cottage cheese low-fat Whole milk/chocolate milk
FAT	<ul style="list-style-type: none"> Avocado Flax seed and flax oil Natural almond butter Natural peanut butter Olive oil Canola oil Peanuts Pumpkin seeds Raw almonds Raw cashews Raw pecans Raw pistachios Raw walnuts Sunflower seeds 	<ul style="list-style-type: none"> Butter (in small amounts) Dry roasted nuts/seeds Reduced fat mayonnaise Reduced fat salad dressing Reduced fat sour cream Reduced fat cheese Regular peanut butter 	<ul style="list-style-type: none"> Fried foods Honey roasted nuts/seeds Margarine Mayonnaise Ranch & other salad dressing Regular cheese Sour cream Coconut oil

Fruits and Vegetables

- Fruits and vegetables are a great source of high fiber carbohydrates.
- Fruits and vegetables provide our body with a combination of vitamins that cannot be replicated in a supplement.
- Different colors serve different roles in the body.
- Aim for at least 3 colors at every meal.
- Over the course of the day strive to eat 2 servings of fruit and 3 servings of vegetables.
- Whole fruits and vegetables are best.
- Canned and frozen fruits and vegetables can also offer healthy alternatives at a lower cost. When choosing canned fruits make sure to choose them in their own juice or water.
- Drink fruit juice in moderation and make sure it is 100% juice. One serving of juice is equal to 4-6 oz.

COLOR CODE OF RESTORATIVE NUTRITION





Set the Tone! • "Break" – the – "Fast"

Eat breakfast every day:

- Breakfast: Increases Metabolism
Fuels the Brain
Increases Energy Levels
- Don't substitute coffee, soda and energy drinks for food or lack of sleep.
- Skipping breakfast leads to eating more calories through the day and later at night. Don't play catch up!

Breakfast should include:

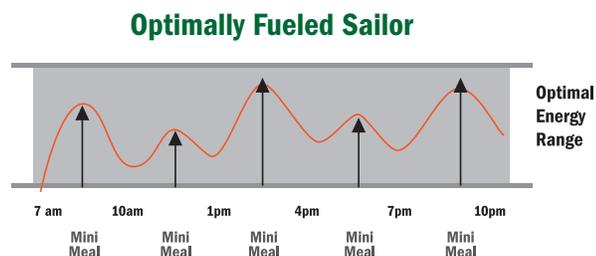
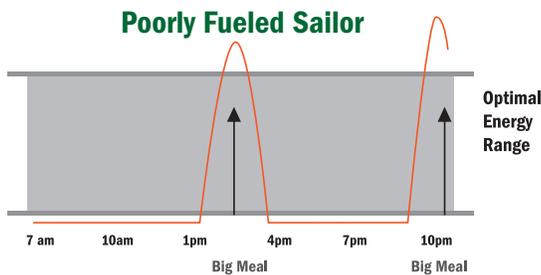
Protein: Eggs, egg whites, ham, beans, yogurt, or low-fat milk

High Fiber Carbohydrate: Whole wheat bread, high fiber cereal, oatmeal, or beans

Color: Fruit in cereal, oatmeal, or yogurt / Veggies in eggs or omelets

Continue to give the body steady fuel:

Eating smaller meals, more often will help to provide stable energy throughout the day. Fuel up with the 3 macronutrients (carbs, protein, fat) every 3 hours. Skipping meals will not lead to weight loss. It will lead to lower energy and decreased physical and mental performance.

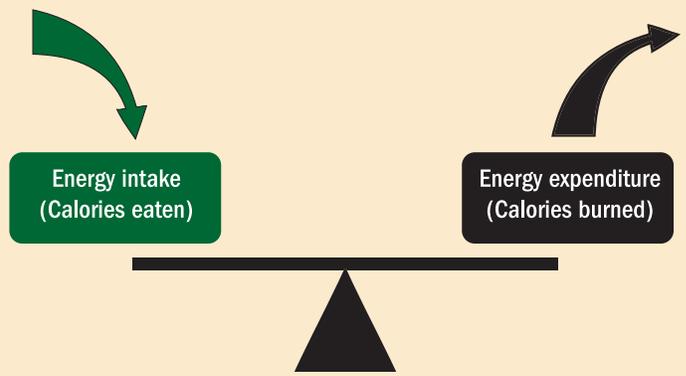


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Energy Balance:

Both the quality and the quantity of the food you consume is important to consider in order to maximize your performance and achieve your body composition goals. Energy is another word for calories and your energy balance is represented by your energy in (what you eat and drink) and energy out (what you burn through daily living and physical activity). Daily balance is important, but you should not scrutinize your daily intake. Changes in body composition will be a result of your consistent changes over time; therefore, aim for balance over the course of each week.

NOFFS provides the information you need to maximize your nutrient QUALITY and energy QUANTITY. Check out the Meal Builder to get an estimate of how many calories you should consume and how to build a day of meals that will provide you with the correct blend of nutrients to help you reach your goals. Keep in mind that the meal builder recommendations are designed for use with the NOFFS workouts or exercise of similar intensity and duration.



THE SAME AMOUNT OF QUALITY ENERGY IN & ENERGY OUT OVER TIME = WEIGHT STAYS THE SAME

More IN than OUT over time = WEIGHT GAIN

More OUT than IN over time = WEIGHT LOSS

LIFESTYLE ACTIVITY + STRUCTURED WORKOUTS + QUALITY FUELING = SUCCESS



Portion Control: What is a serving size?

Choosing great foods is only half the battle to optimizing nutrition. Make sure to choose portion sizes that fit your needs.

BREADS:

- 1 Slice 100% whole wheat, rye, white, pumpernickel bread
- 2 Slices reduced calorie bread
- 1 Hot dog bun
- ½ English muffin
- ½ Bagel (3 inches)
- 1 Roll (small)
- 6" diameter pita bread
- 6" diameter corn or flour tortilla

VEGETABLES:

- 1c Raw vegetables
- 1c Cooked vegetable (e.g. see above for raw)
- 6oz Most vegetable juices

FRUITS:

- 1 Medium whole fruit (apple, orange, banana, etc)
- ½c Applesauce, unsweetened
- ¾c Blueberries
- 1-½c Whole strawberries
- 1c Raspberries or boysenberries
- 1c Cubed cantaloupe or honeydew
- ¼c Cubed watermelon
- ½c Canned fruit (canned in water or juice)
- 12-15 Grapes
- 12 Cherries
- 2 Small plums
- 3 Dried prunes (also called "dried plums")
- 2Tbsp Raisins or other dried fruit
- 4-6oz. 100% fruit juice

CEREALS AND GRAINS:

- 1oz Most cold cereals (1/4 – 1c)
- 1-½c Puffed cereals (e.g. puffed rice)
- ½c Cooked cereal (e.g. oatmeal, oat bran, cream of wheat)
- ½c Cooked brown or white rice
- ½c Cooked enriched or whole-wheat pasta

MILK AND DAIRY

- 8oz (1c.) Nonfat or 1% milk, low fat or 1% fat chocolate milk
- 8oz (1c.) Calcium-fortified light or reduced fat soy milk
- 8oz (1c.) Nonfat or 1% plain or fruited yogurt
- ½c Nonfat frozen yogurt

MEAT AND PROTEIN

- 8oz (1c.) Nonfat or 1% milk, low fat or 1% fat 3 - 4oz meat
- ½c Beans
- 2Tbsp Peanut butter
- 2 Eggs
- ½c Cottage cheese

1tsp = 1 Teaspoon
1Tbsp = 1 Tablespoon
1c = 1 Cup
1oz = 1 Ounce

QUICK TIPS:

- 3-4oz. of meat is about the size and thickness of a deck of playing cards. 
- A medium sized piece of fruit is the size of a tennis ball. 
- 1oz of cheese is about the size of four stacked dice. 
- ½c of ice cream is the size of a tennis ball. 
- 1c of mashed potatoes is the size of your fist (depending on your size; commonly the size of a female fist). 
- 1oz of nuts should fit into the small of your hand. 
- 1tsp of margarine or butter is about the size of the tip of your thumb. 

HYDRATION NEEDS

HYDRATE

DAILY HYDRATION NEEDS

- Water should be your main source of hydration.
- Avoid drinking soda, energy drinks, and fruit drinks. These beverages provide a lot of calories with very little nutritional value.
- Limit sweetened teas and coffee drinks with added sugar and cream.
- Only choose sports drinks before, during, and after intense exercise.

Are you hydrated?

- If you are thirsty, it is too late.
- Evaluate your urine. It should be light in color and resemble pale lemonade.

To maintain hydration drink water:

- 0.5 - 1oz fluid per pound per day [There are about 33oz in a liter (L)].

BODY WEIGHT	OUNCES OF FLUID PER DAY	LITERS NEEDED PER DAY
120 pounds	60 – 120 oz	2 – 4 liters/day
150 pounds	75 – 150 oz	2.5 – 5 liters/day
175 pounds	90 – 175 oz	3 – 6 liters/day
200 pounds	100 – 200 oz	3.5 – 7 liters/day
225 pounds	115 – 225 oz	4 – 8 liters/day
250 pounds	125 – 200 oz	4.5 – 9 liters/day

HYDRATION CONSIDERATIONS IN EXTREME ENVIRONMENTS

In extreme environments it is even more important to be aware of your fluid intake, fluid loss and electrolyte needs.

Key Nutrition Tips for Extreme Environments:

- Do not skip meals.
- Take time to drink.
- Maximize taste/palatability (temperature, sweetness) of your beverage. If it tastes great, you are more likely to drink it.
- Minimize body water losses.
- Consider engineered food products when cramping risks are high, if you are a salty sweater, or if you are sweating more than usual. Choose sports drinks with at least 110mg sodium and 30mg potassium per 8oz/250ml. These are ideal for replacing electrolytes lost in sweat.
- If you are an excessively salty sweater (salty skin), then 200mg sodium per 8oz or added electrolytes should be considered. (Nuun Tablets, Gator-Lytes, etc...)
- Include whole foods in your meals that are higher in sodium. Good options are V8 Juice, pickles, pretzels, adding a little extra salt to your meals.

ENVIRONMENT	CONSIDERATION	HYDRATION RECOMMENDATIONS
Dry Extreme Heat	The extreme dry heat greatly increase the risk for dehydration and heat injury.	Suggested Fluid Intake: 5-12 Liters/day Tips: Sweating rates can be reduced by working at night. During daylight hours, sweating rates can be reduced by covering the skin with light, vapor-permeable clothing. If and when possible, drink COLD water and sports drink.
Hot and Humid	Relative humidity can increase water requirements independent of temperature. The humidity makes the evaporation of sweat off the skin difficult, which decreases the body's ability to cool itself. This increases the risk for dehydration and heat exhaustion. Excessive sweating can also cause a large loss of electrolytes, specifically sodium and potassium.	Suggested Fluid Intake: Up to 2x needs of Extreme Dry Heat Tips: If and when possible drink COLD water and sports drink.
Altitude	Altitude puts us at greater risk of dehydration. More fluid is lost through our urine and breathing. Layers of clothes may cause us to sweat more with little evaporation. The elevation also causes us to not feel as thirsty.	Suggested Fluid Intake: 4-6 Liters/day Tips: Drinking small quantities of fluid frequently results in less urine production than drinking large quantities of fluid less frequently.
Altitude and Cold	The addition of cold to altitude can cause greater risk for dehydration because of the sweat losses that occur in insulated clothing, low rates of fluid ingestion, and concern of having to remove clothing to urinate.	Suggested Fluid Intake: 5.5-7.5 Liters/day Tips: Make sure to consider the ventilation for your clothing to allow for sweating to dissipate heat. Drinking small quantities of fluid frequently results in less urine production than drinking large quantities of fluid less frequently. If and when possible consume hot fluids, tea, chicken/vegetable broth.

HYDRATION URINE CHART

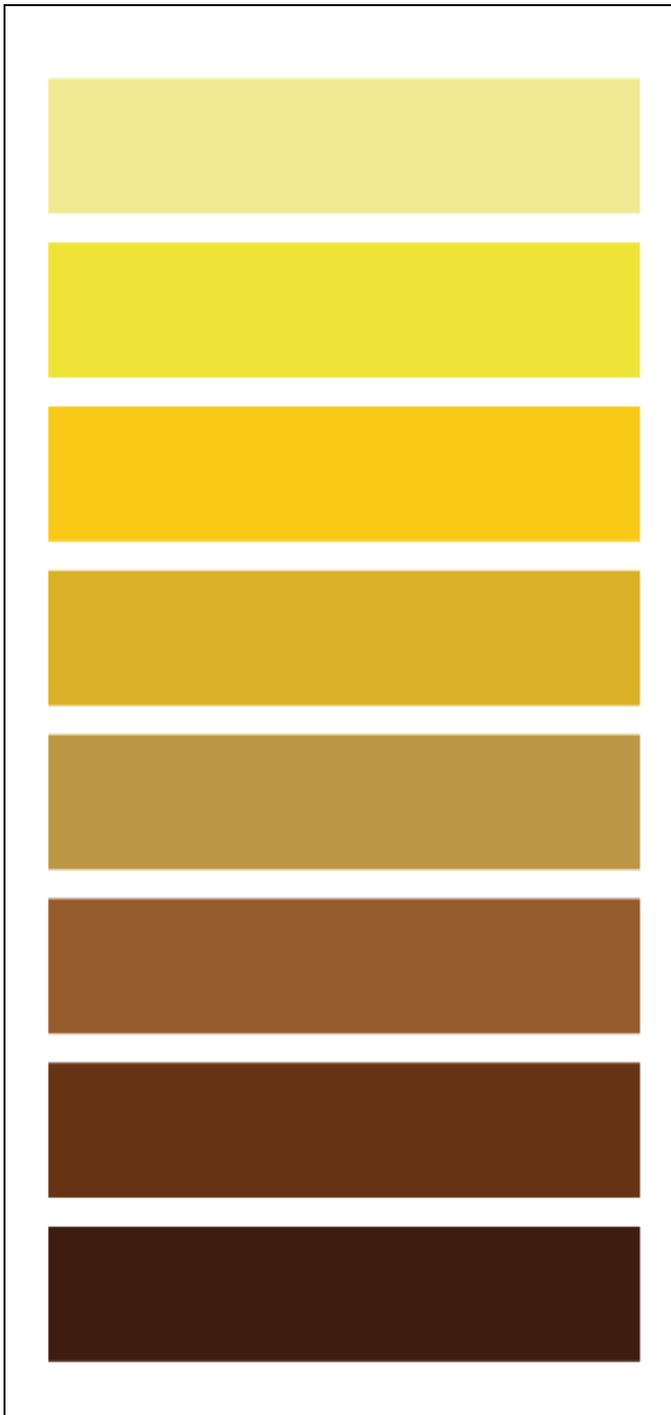


Check the color of your urine as a good indicator of your hydration status.

Hydrated

Dehydrated

***Extremely
Dehydrated
(consult a doctor)***



Recovery in 3's: Pre, During, and Post-Workout

Pre Workout

Don't go into your workout on an empty stomach.

Top off your fuel tank with a small balanced snack containing carbohydrate, fluid, and a small amount of protein about an 1 – 2 hours before your workout.

Going into a workout properly fueled will improve performance and jump start recovery.

Great pre-workout snacks include:

- 1 Yogurt with ½ cup berries and ¾ cup high fiber cereal
- Small bowl of cereal with a banana
- ½ turkey sandwich and fruit
- ½ peanut butter & jelly sandwich and fruit
- Homemade trail mix: (1c high fiber cereal, 2 Tablespoons dried fruit, 2 Tablespoons nuts)

Make sure to hydrate with 16-20 oz of water too.

During Workout

It is important to stay hydrated during exercise.

How much do you need to drink?

- Losing 2% or more of your body weight due to sweating can decrease your performance and put you at greater risk for heat illness.
- A good way to monitor how well you are hydrating is to weigh yourself before and after training.

Do you need a sports drink?

NO, if...

- Training for less than 1 hour
- Weight loss is the goal of the training session

YES, if...

- Training for over an hour
- Training in extreme environments
- Lean body mass gain is the goal
- You enter the workout without any fuel
- You have a short but extremely intense workout

GENERAL HYDRATION GUIDELINES DURING WORKOUTS:

Maintain Hydration

- Keep weight loss to less than 2% during the workout.
- Take 4-6 gulps of fluid about every 15 minutes.
- Pay extra attention to your hydration when you are sweating more than usual or in an extreme environment.

Maintain Fuel and Electrolytes

- When you need something more than water, choose a sports drink with at least 110mg of sodium per 8 ounces to help prevent cramping and maintain electrolytes.
- When your exercise level warrants the consumption of a sports drink, 20-32oz an hour is all you will need to keep you fueled. Balance the rest of your hydration needs with water.

Hydration Example: 150 pound Sailor

- 2% of their body weight is 3 pounds.
- If this Sailor loses more than 3 pounds during their training, they are not hydrating effectively.

DON'T WASTE YOUR WORKOUT

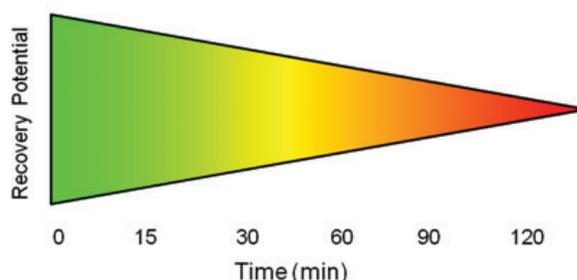


Recovery in 3's: Pre, During, and Post-Workout

Post Workout

- The sooner you get your post workout nutrition, the quicker you recover.
- Your recovery snack or meal – such as a granola bar with at least 5g of protein or a fruit smoothie – makes up one of your 5 - 6 meals per day.

THE OPEN WINDOW OF OPPORTUNITY TO GET YOUR BODY THE NUTRIENTS IT NEEDS FOR RECOVERY.



• **Re-Fuel**

• **Re-Build**

• **Re-Hydrate**

Within 10 minutes of training:

What do you need to recover?

1. Refuel with carbohydrate

The more intense the training, the more carbohydrate you need.

2. Rebuild with protein

Protein needs post workout are based on body weight.

3. Rehydrate with fluid

Drink 20-24oz of fluid for each pound lost during training.

BODY WEIGHT (POUNDS)	GRAMS OF PROTEIN	GRAMS OF CARBOHYDRATE
120 - 150	15 - 20	30 - 60
150 - 180	20 - 25	40 - 75
181 - 215	25 - 30	50 - 90
215 - 245	30 - 35	60 - 105

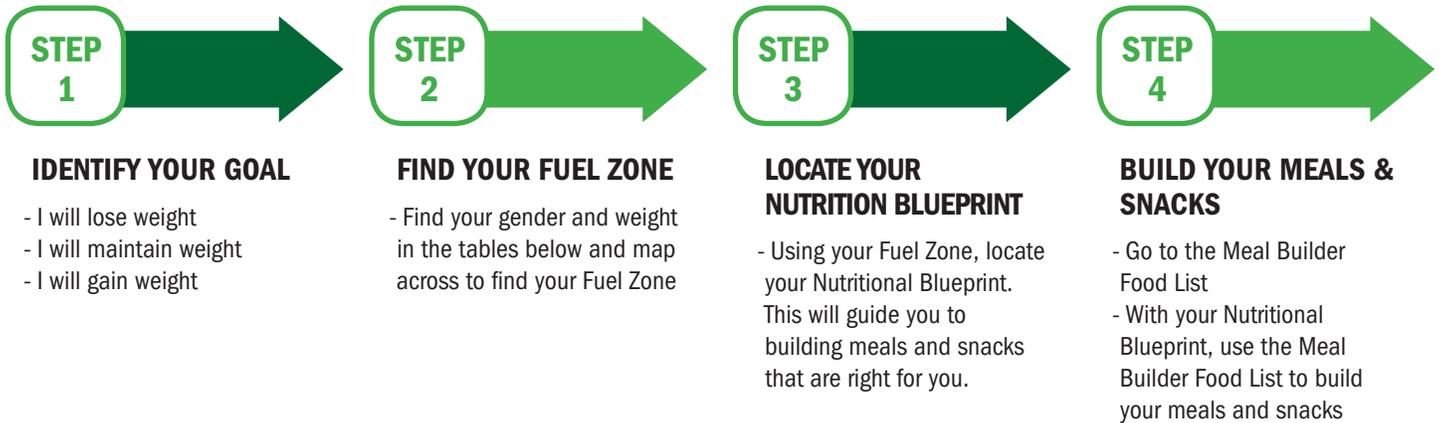
Examples:

- 20oz low-fat chocolate milk + banana
- Turkey and pasta salad
- Tuna sandwich w/baked chips
- Meal replacement bar + 20oz sports drink
- Scrambled eggs or egg whites with whole wheat toast and 6oz juice
- Turkey sandwich + yogurt
- Spaghetti and meatballs
- Fruit smoothie blended with yogurt or whey protein

MEAL BUILDER

The biggest barriers to great nutrition are poor planning and poor implementation. The nutrition blueprint and meal builder make it easy to build meals and snacks that will keep you fueled and help you reach your goals. This tool will help you stay organized and create an environment for success. Always remember the 80/20 rule as you look to sustainably upgrade your nutrition. Choose high octane fuel 80% of the time and lower octane fuel that you really enjoy 20% of the time.

BUILD YOUR MEAL IN 4 SIMPLE STEPS



SET YOUR GOAL, FIND YOUR FUEL ZONE

I WILL FUEL TO...

	LOSE WEIGHT		MAINTAIN WEIGHT		GAIN WEIGHT		
	CURRENT WEIGHT	FUEL ZONE	CURRENT WEIGHT	FUEL ZONE	CURRENT WEIGHT	FUEL ZONE	
STEP 1 ↓ STEP 2	FEMALE	100 - 125	1400 - 1600	100 - 115	1800 - 2000	100 - 125	2400 - 2600
		125 - 160	1600 - 1800	115 - 145	2000 - 2200	125 - 155	2600 - 2800
		160 - 185	1800 - 2000	145 - 170	2200 - 2400	155 - 180	2800 - 3000
		185 - 200	2000 - 2200	170 - 200	2400 - 2600		
		200 - 220	2200 - 2400				
		220 - 240	2400 - 2600				
STEP 1 ↓ STEP 2	MALE	Under 145	1800 - 2000	Under 140	2200 - 2400	Under 145	2800 - 3000
		145 - 165	2000 - 2200	140 - 155	2400 - 2600	145 - 165	3000 - 3200
		165 - 185	2200 - 2400	155 - 175	2600 - 2800	165 - 185	3200 - 3400
		185 - 210	2400 - 2600	175 - 200	2800 - 3000	185 - 205	3400 - 3600
		210 - 230	2600 - 2800	200 - 220	3000 - 3200	205 - 225	3600 - 3800
		230 - 250	2800 - 3000	220 - 240	3200 - 3400	225 - 245	3800 - 4000
		250 - 270	3000 - 3200	240 - 260	3400 - 3600		
		270 - 295	3200 - 3400				

**STEP
3**



Locate Your Nutrition - Operational Series

Using the Fuel Zone you identified in Steps 1 & 2, locate your personal Nutritional Blueprint to fit your caloric needs. Your blueprint has six columns across the top that represent meal times, or “fueling times”. The food groups are represented along the left hand side, and the numbers located within the zone are the recommended number of servings from each food group at each fueling time.

1400 - 1600	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2		2		2	
Proteins	1	1	1	1	1	1
Fruits	1	1	0 to 1	1	0 to 1	
Vegetables	∞	∞	∞	∞	∞	∞
Fats	1	0 to 1	1	0 to 1	1	1
Calorie Range	350 - 400	175-200	280 - 320	175-200	280 - 320	140 - 160
*Meal Replacement Shake or Bar		1		1+ fruit		1

1600 - 1800	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2		2		2	
Proteins	1	1	1	1	1 to 2	1
Fruits	1 to 2	1	0 to 1	1		1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	1	1	1	1	1	1
Calorie Range	400 - 450	200-225	320 - 360	200-225	320 - 360	160 - 180
*Meal Replacement Shake or Bar		1		1+ fruit		1

1800 - 2000	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2		2		2	
Proteins	1	1	1	1	2	1
Fruits	2	1 to 2	1	1 to 2		1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	1	1	1	1	1 to 2	1
Calorie Range	450 - 500	225-250	360 - 400	225-250	360 - 400	180 - 200
*Meal Replacement Shake or Bar		1+ fruit		1+ 2 fruit		1

2000 - 2200	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2	0 to 1	2 to 3	0 to 1	2	
Proteins	1 to 2	1	1 to 2	1	2	1
Fruits	1 to 2	1	1	1		1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	1	1	1	1	1 to 2	1
Calorie Range	500 - 550	250-275	400 - 440	250-275	400 - 440	200 - 220
*Meal Replacement Shake or Bar		1+ fruit		1+ 2 fruit		1+ fruit

2200 - 2400	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2	1	3	1	2 to 3	
Proteins	2	1	1 to 2	1	2	1
Fruits	2	1	1	1		1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	1 to 2	1	1	1	1 to 2	1
Calorie Range	550 - 600	275 - 300	440 - 480	275 - 300	400 - 440	200 - 220
*Meal Replacement Shake or Bar		1+ fruit		1+2 fruit		1+ fruit

2400 - 2600	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	2 to 3	1	3	1	3	0 to 1
Proteins	2	1	2	1	2	1
Fruits	2	1	1	1		1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	2	1 to 2	1	1 to 2	2	1
Calorie Range	600 - 650	300 - 325	480 - 520	300 - 325	480 - 520	240 - 260
*Meal Replacement Shake or Bar		1+ fruit +1 fat		1+2 fruit +1 fat		1+ fruit +1 fat

2600 - 2800	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	3	1 to 2	3	1 to 2	3	1
Proteins	2	1	2	1	2	1
Fruits	2	1	1	1	0 to 1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	2	1	2	1	2	2
Calorie Range	650 - 700	325 - 350	520 - 560	325 - 350	520 - 560	260 - 280
*Meal Replacement Shake or Bar		1+ fruit +1 fat		1+2 fruit +1 fat		1+ fruit +1 fat

2800 - 3000	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	3	2	3	2	3	1
Proteins	2	1	2	1	2	1
Fruits	2 to 3	1	1	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	2	1	2	1	2	2
Calorie Range	700 - 750	350 - 375	560 - 600	350 375	560 - 600	280 - 300
*Meal Replacement Shake or Bar		1+ fruit +1 fat		1+2 fruit +1 fat		1+ fruit +1 fat

3000 - 3200	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	3	2	3	2	3	1
Proteins	2	1	2	1	2	1
Fruits	3	1	1 to 2	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	2	1	2	1	2 to 3	2
Calorie Range	750 - 800	375 - 400	600 - 640	375 - 400	600 - 640	300 - 320
*Meal Replacement Shake or Bar		1+ fruit +1 fat		1+2 fruit +1 fat		1+ fruit +1 fat

3200 - 3400	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	3	2	3	2	3	1
Proteins	2	1	2	1	2	1
Fruits	3	1	2	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	3	1 to 2	2	1 to 2	3	2
Calorie Range	800 - 850	400 - 425	640 - 680	400 - 425	640 - 680	320 - 340
*Meal Replacement Shake or Bar		1+2 fruit +1 fat		1+2 fruit +1 fat		1+2 fruit +1 fat

3400 - 3600	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	3 to 4	2	3	2	3 to 4	1 to 2
Proteins	2	1	2	1	2	1
Fruits	3	1	2	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	3	2	2 to 3	2	3	2
Calorie Range	850 - 900	425 - 450	680 - 720	425 - 450	680 - 720	340 - 360
*Meal Replacement Shake or Bar		1+2 fruit +1 fat		1+2 fruit +2 fat		1+2 fruit +1 fat

3600 - 3800	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	4	3	4	3	4	1 to 2
Proteins	2	1	2	1	2	1
Fruits	3 to 4	1	2	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	3	2	3	2	3	2
Calorie Range	900 - 950	450 - 475	720 - 760	450 - 475	720 - 760	360 - 380
*Meal Replacement Shake or Bar		1+2 fruit +1 fat		1+2 fruit +2 fat		1+2 fruit +1 fat

3800 - 4000	BREAKFAST	SNACK	LUNCH	SNACK	DINNER	SNACK
Grains	4 to 5	3	4	3	4	2
Proteins	2	1 to 2	2	1 to 2	2 to 3	1
Fruits	4	1	2	1	1	1
Vegetables	∞	∞	∞	∞	∞	∞
Fats	3	2	3	2	3	2
Calorie Range	950 - 1000	475 - 500	760 - 800	475 - 500	760 - 800	380 - 400
*Meal Replacement Shake or Bar		1+2 fruit +1 fat		1+2 fruit +2 fat		1+2 fruit +1 fat

*When choosing meal replacements:

1. Make sure it fits within your calorie recommendations
2. Should have at least 3g of fiber
3. Should have 10 - 30g of protein for women
4. Should have 15 - 42g of protein for men

COACH TIP:

Remember, the biggest barriers to great nutrition are poor planning and poor implementation. Stay organized and do what you can to create an environment for success. To get you started, make a copy of your Nutrition Blueprint and put it somewhere you'll have easy access to when making fueling decisions, like in your wallet or on your fridge.

MEAL BUILDER

STEP
4

Build Your Meals & Snacks

Using your Nutritional Blueprint, follow the directions below to start filling your day with meals and snacks designed to help you with your goals.

Map Your Blueprint

The food list below has foods from each of the categories found in your Nutrition Blueprint.

Size Up Your Servings

The number to the left of each food item equals one serving (eg, 1 slice of whole wheat bread = 1 grain serving).

Mix It Up

Each serving may be used interchangeably. For example, if you tire of whole wheat toast at breakfast you can replace it with any of the foods listed in the grain column. If you have more than one serving suggested, you can double up on the same food (eg, 2 slices of whole wheat toast) or mix and match (eg, 1 slice of whole wheat toast and 3/4c Multi grain Cheerios). You are limited only by your creativity!

You are now prepared to build customized meals and snacks to help you meet your goals. These meals and snacks will provide you with sustainable fuel throughout the day as well as the energy you need for your workouts. Remember, to maximize your energy and reach your body composition goals, think about both quality and quantity of your food choices.

GRAINS/STARCHES:

Pasta/Rice

- 1/3c Brown Rice (cooked)
- 1/3c Whole Wheat Cous Cous (cooked)
- 1/2c Whole Wheat Pasta (cooked)
- 1/4c Risotto, Quinoa (cooked)

Breads/Tortillas/Rolls

- 1 slice Bread (100% Whole Wheat)
- 1/2 Pita Bread (6" diameter each)
- 1/4 Whole Wheat Bagel
- 1/2 English Muffin
- 1/2 Whole Wheat Hamburger/Hot dog Bun
- 1/2 Sub Bread (6" each)
- 1 Whole Wheat Tortilla
- 2 Corn Tortillas
- 1 sm. Whole Wheat Roll (1oz each)

Cold Cereals

- 1/2c All Bran Cereal
- 3/4c Cheerios Cereal
- 3/4c Cheerios MultiGrain Cereal
- 1/2c Cracklin Oat Bran Cereal
- 1/2c Frosted Mini Wheats Cereal
- 1/2c Grape Nuts Cereal
- 1/2c Kashi Go Lean Cereal
- 1/2c Kashi Go Lean Crunch Cereal
- 1/2c Kashi Go Lean Honey Almond Flax
- 1/2c Muesli Cereal
- 1/2c Raisin Bran Cereal
- 3/4c Smart Start Cereal
- 3/4c Special K Cereal
- 1/2c Whole Wheat Total Cereal

Hot Cereals

- 1/2c Cream of Wheat (cooked)
- 1 Instant Grits
- 1/2 Packet Kashi Instant Oatmeal
- 1/2 Packet Quaker Instant Oatmeal
- 1/2c Slow Cooked Oatmeal

Veggies, Beans, Potatoes

- 1/2c Soy Beans (cooked)
- 1/2c Split Peas (cooked)
- 1c Squash (winter, acorn, butternut)
- 1/2c Peas (cooked)
- 1/2 sm Baked Potato
- 1/2c Beans: Black, Kidney, Pinto, Lima, Lentils (cooked/canned)
- 1/2c Corn (cooked)
- 1 Ear of corn
- 1/2c Sweet Potato (cooked)
- 1/2c Yam (cooked)
- 1/2c Mashed Potatoes

Snacks/Crackers/Granola Bars

- 1 Kashi Granola Bar
- 2 Graham Crackers
- 5 Whole Wheat Crackers (baked)
- 4 Whole Wheat Melba Toast
- 1 Nature Valley Granola Bar
- 8 Animal Crackers
- 3c Light Popcorn (popped)

3/4c

- Pretzels
- 2 Rice Cakes (4" diameter each)
- 4 Reduced Fat Triscuits
- 1 Whole Grain Fig Newton

PROTEINS / DAIRY:

Fish/Seafood

- 3oz Fish
- 3oz Cod
- 3oz Flounder
- 3oz Haddock
- 3oz Halibut
- 3oz Salmon
- 3oz Shrimp
- 3oz Trout
- 3oz Tuna

Poultry

- 3oz Chicken (lunch meat)
- 3oz Chicken breast
- 3oz Ground turkey (cooked)
- 3oz Turkey (lunch meat)
- 3oz Turkey breast

Beef/Pork

- 3oz Beef (96% lean ground chuck)
- 1.5oz Beef jerky
- 3oz Beef tenderloin
- 3oz London broil
- 3oz Pork (grilled)
- 3oz Roast beef (lunch meat)

Dairy

- 8oz 1% or non-fat regular milk or chocolate milk
- 1/2c Non-fat or low fat cottage cheese
- 1/2c Non-fat frozen yogurt
- 1c Non-fat or low fat greek yogurt
- 8oz Reduced-fat soy milk
- 1 2% String cheese

Eggs

- 1/4c Egg Substitute
- 4 Egg Whites
- 2 Eggs
- 2 Omega-3 Eggs

Legumes

- 1/2c Beans: Black, Kidney, Pinto, Lima, Lentils (cooked/canned)
- 8oz Calcium-fortified light soy milk
- 2T Hummus
- 1/2c Soy beans (cooked)
- 1/2c Split peas
- 1T Almond butter
- 1T Peanut butter (natural)
- 10-15 Raw nuts

MEAL REPLACEMENTS/PROTEIN POWDERS:

- 1-2 scoop Whey Protein*
- 1 Bar
- 1 Shake

*Make sure to choose protein powders that are certified safe and reliable. Check out www.nfsport.com for a complete list.

Meal replacement considerations:

- Make sure it fits within your calorie recommendations
- Should have at least 3g of fiber
- Double check the protein level
 - Women need **10-30g**
 - Men need **15-42g**

VEGETABLES:

Green

- 1c Arugula
- 1/2c Asparagus (cooked)
- 1c Asparagus (raw)
- 1/2c Broccoli (cooked)
- 1c Broccoli (raw)
- 1c Brussel sprouts
- 1/2c Celery (cooked)
- 1c Celery (raw)
- 1c Collards (cooked)
- 1c Cucumber (raw)
- 1/2c Green beans (cooked)
- 1c Green beans (raw)
- 1c Green veggie salad
- 1c Kale (raw)
- 1c Lettuce (all)
- 1c Spinach (raw)

White

- 1/2c Cabbage (cooked)
- 1c Cabbage (raw)
- 1/2c Cauliflower (cooked)
- 1c Cauliflower (raw)
- 1/2c Onions (cooked)
- 1c Onions (raw)
- 1/2c Water chestnuts (cooked)
- 1c Water chestnuts (raw)

Red

- 1/2c Tomato, beets
- 1/2c Salsa, tomato sauce

Orange

- 1/2c Carrots (cooked)
- 1c Carrots (raw)

Mixed Colors

- 1/2c Peppers (cooked)
- 1c Peppers (raw)
- 1/2c Stir fry vegetables (cooked)
- 1c Stir fry vegetables (raw/frozen)
- 6oz Vegetable juice
- 1/2c Zucchini (cooked)
- 1c Zucchini (raw)

FRUITS:

Red

- 1 sm. Apple
- 1/2c Applesauce (unsweetened)
- 12 Cherries
- 1c Raspberries
- 1 1/4c Strawberries (whole)
- 1/4c Watermelon (cubed)
- 1/2 m. Grapefruit

Orange

- 1c Cantaloupe (cubed)
- 1 m. Orange, nectarine or peach
- 1 lg. Tangerine

Yellow

- 1/2 lg. Banana(s)
- 3/4c Pineapple chunks (in own juice)

Blue/Purple

- 1c Blackberries or boysenberries
- 3/4c Blueberries
- 14 Grapes
- 2 sm. Plums
- 3 Prunes (dried plums)
- 2T Raisins

Green

- 1c Honeydew melon (cubed)
- 1 sm. Kiwi fruit
- 1 sm. Pear

Mixed Colors

- 2T Dried fruit
- 1/2c Fresh fruit salad
- 1/2c Fruit cocktail (own juice)
- 6oz Fruit juice (100% juice)
- 1c Mixed berries (fresh/frozen)

FATS (CHOOSE OFTEN):

- 1T Nut butters: Almond, peanut, etc...
- 10-15 Nuts: Almonds, walnuts, pecans
- 1/4 Avocado
- 12 lg. Black or green olives
- 1.5t Plant oils: olive, canola, flax
- 2T Flax seeds
- 2T Hummus
- 2T Seeds: Pumpkin, sesame, sunflower
- 3T Guacamole
- 2t Smart Balance, Benecol

FATS (CHOOSE LESS OFTEN):

- 2t Butter (stick)
- 1oz Cheese
- 1 slice Cheese
- 2T Cream cheese
- 4T Half & Half
- 2t Mayonnaise
- 3T Reduced-fat cream cheese
- 4T Reduced-fat sour cream
- 2T Sour cream
- 1 2% String cheese
- 2 Turkey bacon slice
- 1 Turkey sausage link
- 1T Commercial salad dressings

1t = 1 Teaspoon
1T = 1 Tablespoon
1c = 1 Cup
1oz = 1 Ounce

sm. = Small
med. = Medium
lg. = Large