

24SOW Pre-Assessment Nutrition Program



KEY CONCEPTS

1. Drink to Prevent Dry Mouth
2. Build Resiliency with Variety & Color
3. Choose Quality Carbs
4. Pump Protein with Purpose
5. Fuel with Performance Fats
6. Consistency is Key
7. Prepare with Pre-Training Fuel
8. Energize with During-Training Fuel
9. Recover with Post-Training Fuel
10. Navigate the SEA of Supplements

1. DRINK TO PREVENT DRY MOUTH

If you have the feeling of “dry mouth” this is a sign that you are already at least 1% dehydrated.

Negative performance effects of dehydration begin at 2% dehydration, including:

- Reduced hand-eye coordination
- Delayed decision making
- Mental fatigue
- Increased heart rate
- Reduced endurance performance

Most active men need a minimum of 120oz of water per day. This is equivalent to approximately 4 Liters or 1 Gallon. However, hydration needs increase depending on:

- Exercise duration & intensity
- Sweat rate
- Heat & humidity
- Individual variances

Thus, it is very likely that you need **MORE** than 1 gallon of fluids daily. For the purposes of this training program, it may be wise to start monitoring your fluid intake and aim to drink 1 Liter (~34oz) every 3-4 hours. Example:

TIME	FLUID INTAKE
0800-1100	1 Liter (34oz)
1100-1400	1 Liter (34oz)
1400-1700	1 Liter (34oz)
1700-2000	1 Liter (34oz)

In addition to the above guidelines, it is recommended to add fluids based on training and sweat rate. Follow the guidelines below for before, during, and after training:

TIME	FLUIDS
Pre-Training:	Drink ½ Liter (~16oz) of water or electrolyte/carb beverage.
During-Training	Take sips of water or electrolyte/carb beverage every 15-20 minutes or as needed by paying attention to the feeling of dry mouth.
Post-Training	Recover with at least 1 Liter of water or electrolyte/carb beverage as soon as possible. For specific guidance, weigh yourself before & after training and rehydrate with 24 ounces per 1 pound of body weight lost. <i>Example:</i> <i>Pre-workout: 170.6lbs</i> <i>Post-workout: 168.2lbs</i> <i>Difference: 2.4lbs lost x 24 ounces</i> <i>Rehydration recommendation = 57.6oz (1.7Liters)</i>

2. BUILD RESILIENCY WITH VARIETY & COLOR

Over the course of a 26 week program obtaining adequate vitamins and minerals will protect from sickness, injury, and cellular damage. Aim to eat at least 5 fresh fruits and vegetable each day with a variety of colors.

- **White & yellow** – Enhance immune system
 - Potatoes, corn, bananas, cauliflower
- **Blue & purple** – Repair damaged and inflamed cells
 - Red onion, blueberries, plum
- **Red & orange** – Optimize brain function & support heart and circulatory system
 - Strawberries, red bell pepper, tomato
- **Green** – Protect bone and muscle
 - Broccoli, spinach, asparagus

To obtain a variety of color in your diet, stock your kitchen with foods including:

VEGGIES <ul style="list-style-type: none"> • Asparagus • Broccoli • Beets • Bell Pepper • Cucumber • Celery • Carrots, whole/baby • Cabbage, red/green • Cauliflower • Green Beans • Kale • Lettuce - Romaine • Mushrooms • Squash - Yellow • Spinach 	<ul style="list-style-type: none"> • Tomato • Onion, red/yellow/white • Zucchini FRUITS <ul style="list-style-type: none"> • Apples • Bananas • Blueberries • Clementine • Cherries • Grapes • Honeydew • Lemons/Limes • Nectarine • Oranges/Tangerines • Peach • Raspberries 	<ul style="list-style-type: none"> • Strawberries PANTRY <ul style="list-style-type: none"> • Artichokes • Canned Pineapple • Canned Peaches • Canned Mixed Veggies • Dried raisins • Dried cranberries • Other dried fruit • Diced/Stewed Tomatoes • Tomato Sauce • Hearts of Palm • Prunes JUICES <ul style="list-style-type: none"> • 100% fruit Juice • V8 or Tomato Juice
---	---	--

3. CHOOSE QUALITY CARBS

Carbohydrates are the body's fuel source for all physical activity. Low carbohydrate diets are not recommended during this training program. Consume fruits and sugars before training as they digest fast and provide a quick source of energy. Consume whole grains, starchy vegetables, beans and legumes at meals to provide a source of long lasting energy, fiber, and proteins. To fuel with high quality carbohydrates, stock your kitchen with foods including:

<p>GRAINS</p> <ul style="list-style-type: none"> • Bagels, Whole Grain • Bread, Whole Grain • Beans (Canned) <i>Kidney, Pinto, Black, Navy, Chickpea etc.</i> • Corn Tortillas • Couscous • English Muffin, Whole Grain • Oatmeal • Rice <i>Brown, Wild Rice, White</i> • Quinoa • Pasta, Whole Grain • Wraps, Whole Grain 	<p>STARCHY VEGGIES</p> <ul style="list-style-type: none"> • Butternut Squash • Corn • Potato <i>Russet, New/Purple, Sweet</i> • Peas • Spaghetti Squash <p>FROZEN</p> <ul style="list-style-type: none"> • Pancakes, Whole Grain • Waffles, Whole Grain 	<p>CEREALS/SNACKS</p> <ul style="list-style-type: none"> • Baked Chips • High Fiber/Protein Cereals <i>Cascadian Farms, Cheerios, Chex, Post, Oatmeal</i> • Corn Tortilla • Multigrain Crackers • Popcorn, light butter • Pretzels • Rice Cakes
--	--	---

4. PUMP PROTEIN WITH PURPOSE

Consume a source of protein at each meal and snack. The purpose of protein is to build and repair muscle, tissue, immune system, and bone. To enhance training and repair, choose lean proteins most often. Lean protein sources include fish, chicken, turkey, beans, eggs, low fat milk, yogurt, nuts and seeds. Fatty protein sources including beef, pork, and full fat dairy should be consumed less often. To fuel with purposeful protein, stock your kitchen with these lean sources:

<p>FRESH</p> <ul style="list-style-type: none"> • Chicken Breast • Chicken Thighs • Ground Chicken • Pork Tenderloin • Pork Chop • Turkey Breast • Ground Turkey • Sirloin • Ground Beef (93% lean) • Beef tips • Lean Ham Steak • Salmon • Tilapia • Shrimp • Tuna • <i>Other Fish</i> 	<p>DELI MEAT/CHEESE</p> <ul style="list-style-type: none"> • Chicken • Ham • Turkey • Sliced Cheese <p>DAIRY</p> <ul style="list-style-type: none"> • Eggs • Cheese • Milk Skim, 1% or 2% • Soy Milk • Yogurt, Greek 0% or 2% fat • Yogurt, Regular Low Fat 	<p>PLANT BASED PROTEINS</p> <ul style="list-style-type: none"> • Beans (Canned) <i>Kidney, Pinto, Black, Navy, Chickpea etc.</i> • Edamame/soy beans • Tempeh • Tofu • Quinoa • Frozen veggie burgers • Hummus <p>PANTRY</p> <ul style="list-style-type: none"> • Tuna (canned/in water) • Beef Jerky • Protein Powder
--	---	--

5. FUEL WITH PERFORMANCE FATS

Fats that benefit performance include those from plant sources which reduce inflammation, provide cognitive benefits, cellular protection, and a beneficial source of calories. Stock your kitchen with performance enhancing fats including:

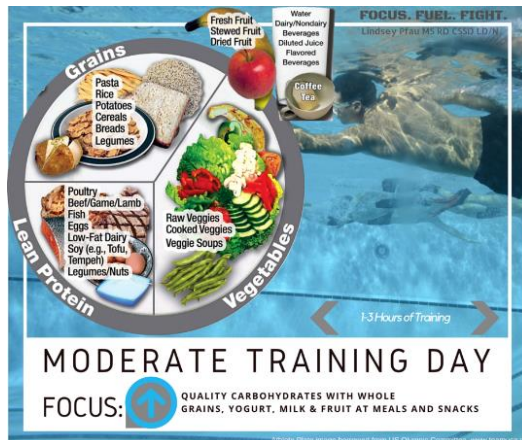
<p>NUTS & SEEDS</p> <ul style="list-style-type: none"> • Almonds • Cashews • Pistachios • Pecans • Walnuts • Sunflower Seeds • Pumpkin Seeds • Flax Seed • Chia Seeds 	<p>NATURAL NUT BUTTERS</p> <ul style="list-style-type: none"> • Peanut butter • Almond butter • Cashew butter • Sunflower seed butter • Tahini <p>FRESH</p> <ul style="list-style-type: none"> • Avocado • Guacamole • Hummus 	<p>OILS</p> <ul style="list-style-type: none"> • Avocado Oil • Canola/Vegetable Oil • Coconut Oil • Flaxseed Oil • Olive Oil • Safflower Oil • Sesame Oil <p>BUTTERS</p> <ul style="list-style-type: none"> • Grass fed butter • Smart Balance Spread
---	---	--

6. CONSISTENCY IS KEY

Fueling your body consistently, day in and day out, will provide the energy and nutrition to perform and recover optimally throughout these 26 weeks. Follow these general concepts:

- Eat a meal or snack every 2-4 hours.
- Always eat before training
- Always eat after training
- Eat balanced meals based on activity level*
- If you are losing weight and easily fatigued, increase portion size or add additional snacks throughout the day.
- If you are gaining unwanted weight, slightly decrease portion sizes at meals, however do not restrict pre & post training fuel. Additionally choose more fresh whole foods in place of processed and packaged items.

*Create your meals similar to the images below based on various training days:



7. PREPARE WITH PRE-TRAINING FUEL

To provide fuel to your working muscles, you should eat carbohydrates before training. The amount you need varies depending on timing of training. See chart below:

30-60 MIN PRE-TRAINING	2-3 HOURS PRE-TRAINING
<i>Scenario: Wake up at 5am for 6am training</i>	<i>Scenario: Eat lunch at 12pm, train at 3pm</i>
<i>Need: 30-60 grams of carbohydrate Minimal protein & fat</i>	<i>Need: 100-150 grams carbohydrate Moderate protein & fat</i>
<ul style="list-style-type: none"> Banana 8-16oz 100% fruit juice 1-2 oatmeal packets ½ cup oatmeal with berries & honey 2 slices toast with jelly or peanut butter 2 frozen waffles with maple syrup 1-2 granola bars (<i>Quaker Oats; Nature Valley; Kashi; Sunbelt Bakery; KIND Healthy Grains</i>) 1 sports bar (<i>Gatorade Fuel bar; Powerbar Performance Energy bar; Clif; Probar</i>) 1-2 dried fruit bars (<i>Lara bar, KIND Pressed Fruit, That's it</i>) Non-fat yogurt Bagel with peanut butter or jelly 8oz milk with carnation instant breakfast packet 	<ul style="list-style-type: none"> 8" sub sandwich with Gatorade Burrito with rice and beans 4 pancake breakfast with fruit 2 cups pasta with marinara sauce Fruit and milk smoothie

8. ENERGIZE WITH DURING-TRAINING FUEL

During low intensity training days (< 1 hour continuous) you may only need to focus on hydration (refer to Key Concept #1). Training that is expected to last longer than 1 hour will benefit from additional fuel to maintain optimal performance. Similar to the pre-training guidelines, your body can digest 30-60g of simple sugars every 60 minutes **DURING** training. Portable options such as carbohydrate gels, carbohydrate beverages, and energy bars may be easiest to consume during training. Consider the options below:

Examples of 30-60g of carbohydrate:

- 1 packet sports gel: Gu; Gu Roctane; Powerbar Power Gel; Clif Gel; Honey Stinger Gel
- 1 packet sports chews: Gatorade Energy Chews; Clif Shotblocks; Powerbar Energy Blasts; Honey Stinger Chews
- 8-20oz sports drink: Gatorade; Powerade, Drip Drop
- 2 handfuls (½ cup) dried fruit
- 2 cups Watermelon
- Banana
- 1-2 granola bars (Quaker Oats; Nature Valley; Kashi; Sunbelt Bakery)
- 1 energy bar (Gatorade Fuel bar; Powerbar Performance Energy bar; Clif; Probar)
- 1-2 dried fruit bars (Lara bar, KIND Pressed Fruit, That's it)

9. RECOVER WITH POST-TRAINING FUEL

It is important to eat both protein and carbohydrate post-training to rebuild muscles and restore energy levels. Post training, consume between 20-30g of protein as soon as possible, along with carbohydrate. Aerobic (cardiovascular) training requires more carbohydrate to recover compared to anaerobic (strength) training. After aerobic training, aim for 60-100g of carbohydrate (3:1 or 4:1 carbohydrate to protein ratio). After anaerobic training, aim for 40-60g of carbohydrate (2:1 or 3:1 ratio).

Post-training fuel should be consumed with the intent to recover, and should not replace regular meals and snacks.

For example, if you train from 6:30-8am, eat post-training fuel at 8:30 and plan to have breakfast around 9:30am. Your breakfast may be smaller than usual, however it should not be skipped. Examples:

ANAEROBIC TRAINING: Strength training				
DURATION	CARB:PROTEIN RATIO	CARBS	PROTEIN	EXAMPLE
< 60 min	2:1	40	20	EAS Whey Protein powder mixed with milk + banana
60-120min	3:1	75	25	20oz Gatorade + 3 egg omelet + 1-2 pieces toast & 1 cup fruit
>120min	3:1	90	30	Smoothie: 1/2 cup Greek yogurt, 8 oz milk, 2 Tbsp peanut butter, 1 cup berries, 1 banana, 2 Tbsp honey

AEROBIC TRAINING – Rucking, running, swimming				
DURATION	CARB:PROTEIN RATIO	CARBS	PROTEIN	EXAMPLE
< 60 min	3:1	60	20	16oz chocolate milk + ½ cup fruit & nut trail mix
60-120min	4:1	100	25	Bolthouse Farms Smoothie + 2 packets oatmeal + ½ cup almonds
> 120min	4:1	120	30	12" subway sandwich with meat, cheese, and vegetables + 20oz Gatorade

10. NAVIGATE THE SEA OF SUPPLEMENTS

“Navigating the SEA of supplements” means paying attention to the Safety and Efficacy of dietary supplements as well as obtaining Approval by a medical provider prior to use. Supplements pose potential safety and health concerns, especially related to heavy training periods and stressful environments. An appropriate performance nutrition diet (as outlined in Key Concepts 1-9) will provide sufficient nutrients. If supplements are recommended by a dietitian or medical provider, consider the information below:

SAFETY:

For high quality products with accurate labels, manufacturing audits, and contaminant testing, only use dietary supplements with 3rd party verification from the reputable agencies shown below.



www.quality-supplements.org/verified-products



GMP Registered

www.nsf-sport.com



<http://informed-choice.org>



www.bscg.org

EFFICACY:

The only dietary supplements that may provide performance benefits throughout this 26-week training program include carbohydrate powders, protein powders, electrolyte replacements, and fish oil/omega 3 supplements. Specific benefits, dosing, and suggested brands with third party verification are listed below:

SUPPLEMENT	BENEFITS	DOSE	SUGGESTED BRANDS
Carbohydrate Powders	Provide rapid fuel source for training to delay fatigue and prevent muscle breakdown.	30-60g carbohydrate per dose pre & during training.	Cytomax Cytocarb Generation UCan Gatorade Pacific Health Labs- Accelerade Pacific Health Labs- Endurox Vitargo Powerade
Protein Powders	Provide convenient protein source post-training.	20-30g protein	BiPro Cytosport Muscle Milk Cytosport Monster Blend EAS Klean Athlete Optimum Nutrition Six Star Thorne Vega
Electrolytes: <i>Including sodium (Na) Potassium (K) Chloride (Cl) Calcium (Ca) and Magnesium (Mg).</i>	To replenish electrolytes lost in sweat, especially in hot and humid environments.	Dose varies based on individual. Sodium (Na) is most important electrolyte; supplementation can range from 500-2000mg/day	Gatorade Gatorlytes Powerade Ion-4 Boost The Right Stuff Drip Drop Camelbak Elixir Nuun Skratch Thorne Catalyte
Fish Oil/Omega 3	To increase omega-3 fatty acid intake not otherwise met through food sources to benefit overall heart, brain health, and combat total body inflammation.	1-2g/day	Advocare Omega Plex Brain Armor DHA Kirkland Signature Klean Athlete Omega Nature Made Nordic Naturals Ultimate Omega D3 Nutralite Heart Health Omega Thorne Super EPA

ADDITIONAL NOTES:

Supplements will NOT be available during selection. If you choose to use supplements during training, it is recommended to wean off all supplements approximately 2-4 weeks prior to your selection.

Additionally, caffeine, though not discussed in this program, should also be discontinued at this time to avoid withdrawal effects. Additional supplement information can be found at the websites below:

<https://www.opss.org>

<http://info.therapeuticresearch.com/dod>

PUTTING IT ALL TOGETHER: SAMPLE DAY

WEEKS 1-25:

Goals:

- ✓ 3 meals
- ✓ 1-2 snacks
- ✓ Pre & Post-workout fuel
- ✓ During training fuel, as needed following guidelines
- ✓ 5+ fruits & vegetables
- ✓ 4+ Liters fluid daily
- ✓ Only supplements that are safe, effective, approved by medical provider, and in appropriate dose

0530	Cup of coffee + PB&J sandwich + ½ L Water + 2g Fish Oil
0600	Warm up
0630	Workout with sips of Gatorade (20oz bottle)
0800	Endurox Recovery Drink (carb/protein powder) mixed with ½ L water + Banana + Granola bar
0930	Egg omelet with meat and cheese + Orange Juice + 1 L water
1200	Rice + Chicken + Black Beans + Veggies (burrito bowl) + Apple + 1 L water
1500	Pretzels + baby carrots + hummus
1800	Salmon + Sweet potato + Side Salad + dinner roll + 1 L water
2000	Greek Yogurt

1-WEEK PRIOR TO SELECTION:

GOALS:

- ✓ 3 meals
- ✓ 1-2 snacks
- ✓ Pre & Post-workout fuel
- ✓ Some MRE's incorporated pre, during & post workout to ensure stomach tolerance
- ✓ 5+ fruits & vegetables
- ✓ 4+ Liters fluid daily
- ✓ High carbohydrate diet to "carb load" for upcoming selection week
- ✓ No supplements or caffeine

0530	MRE Sweet bread + peanut butter & jelly packets + ½ L water
0600	Warm up
0630	Workout
0800	MRE Nut & Raisin Mix & MRE Chocolate Milk drink mix + ½ L water
0930	Oatmeal + Milk + Dried Fruit & Nuts + OJ + 1 L water
1200	12" sub + chips + piece of fruit + 1 L water
1500	Granola Bar + Banana
1800	Spaghetti + Beef + Pasta Sauce + Veggies + Dinner Roll + 1 L water
2000	Tart Cherry Juice blended into yogurt-based smoothie

SAMPLE WEEKLY GROCERY LISTS:

As you read through the AFSOC Prep Phase Training Program, a pre-workout and post-workout fuel suggestion with target calories and macronutrients is provided. It is recommended to go to the grocery store every 1-2 weeks. If following the fuel suggestion, sample grocery lists is provided below. Additional foods may need to be purchased to support additional meals throughout the day.

DAIRY & MEATS

Eggs
Deli Cheese Slices
Deli Turkey/Ham Slices
Yogurt & Greek Yogurt
Cottage Cheese
Milk
Chocolate Milk (ready to drink)

PRODUCE

Fresh Berries (Blueberries/
Raspberries/Strawberries)
Fresh cut fruit (pineapple/watermelon/grapes)
Fresh whole fruits (Apples/Bananas/Pears)
Frozen Mixed Berries
Frozen Tropical Fruit
Orange Juice
100% Tart Cherry Juice or Pomegranate Juice
Avocado
Spinach

PANTRY

Trail Mix
Walnuts/Almonds/Cashews
Ground Flaxseed
Chia Seeds
Peanut Butter/Almond Butter

STARCHES

Whole Wheat Bread and/or English Muffins
Spinach Wraps or Whole Wheat Tortillas
Oatmeal
Frozen Waffles
Frozen hash brown potatoes/Chopped sweet potato
Black Beans
Cereal (Cheerios/Chex/Life)
High Fiber Cereal
Granola
Granola Bars (Clif/Nature Valley/Cascadian Farms/Kashi)

OTHER

Sports Beverage (ready to drink)
Jelly
Honey
Whey Protein Powder