

Performance Nutrition for the Athlete

Proper nutrition is necessary for you to maximize your athletic potential. As a Spartanburg Viking you will spend many hours training and practicing. You must supply your body with the appropriate nutrition at the appropriate time to allow it to fully recover and rebuild. Neglecting the nutritional component of training will lead to a plateau in performance and development. Use this manual as a resource to choosing appropriate foods for your needs. By establishing a specific meal plan while training, you can increase your progress in the weight room and on the field or court. Proper nutrition is the variable that is most difficult to adhere to. The current environment we live in has produced the largest obesity rate in history. With so many nutritional temptations (fast food, carbonated drinks) surrounding us every day, it takes a self-discipline athlete to stay on track.

The main objective of this manual is to give you an idea of what performance nutrition means and how to apply it to your life. Eating healthy is not as difficult as it seems. It just takes a little knowledge, self-discipline, and planning. Becoming an elite athlete involves taking risk and making sacrifices throughout ones career. The most successful athletes are usually the ones that made those sacrifices and took those risks. In the grand scheme of things, this a small price to pay for athletic success and a long healthy life.

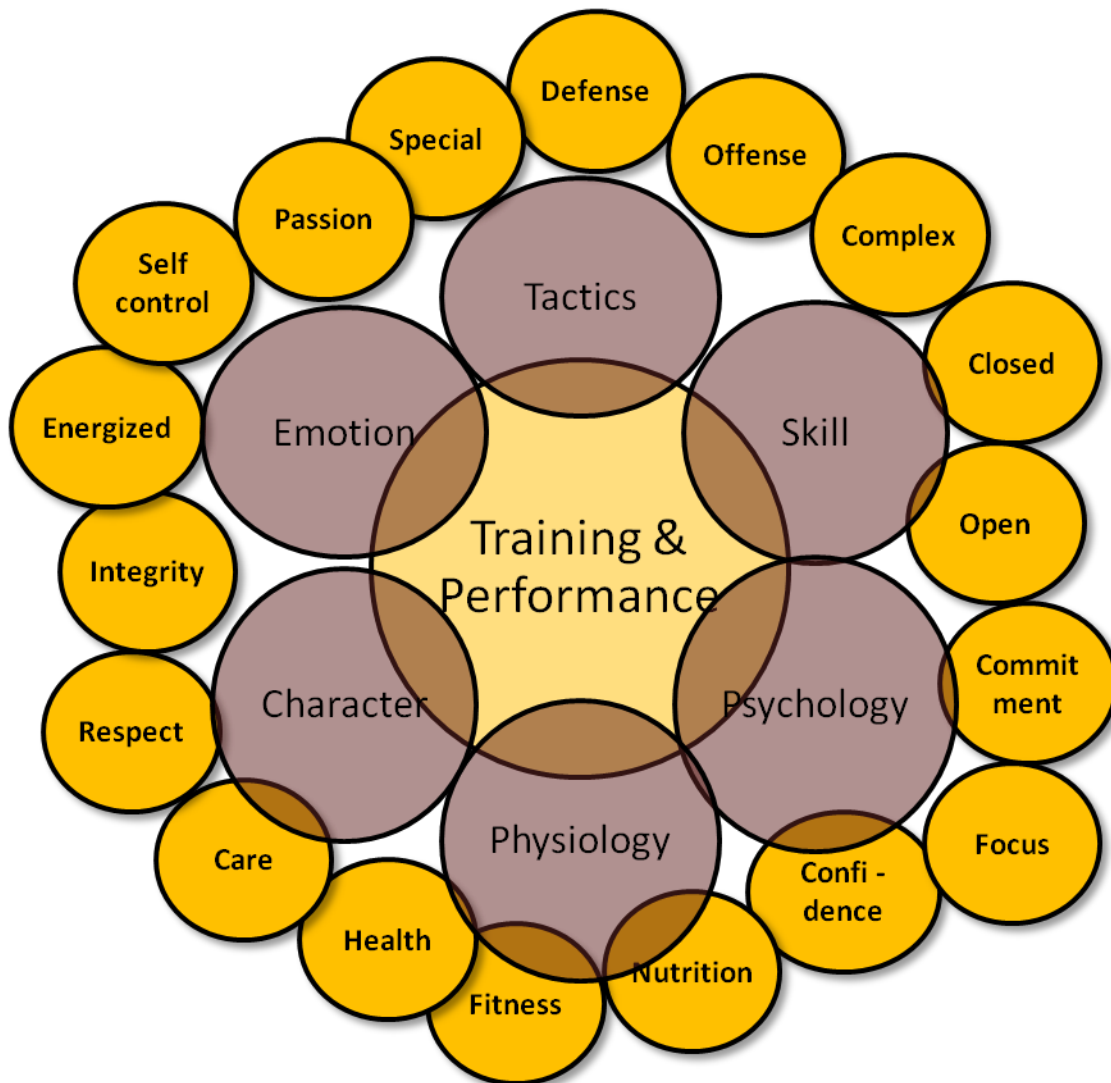


Athletic Performance Overview:

Below describes factors that influence your ability to reach your athletic potential and operate at high level. Nutrition is one of the most important factors that drive your athletic performance. Each wheel must operate properly to allow the engine to run at its highest level. If you neglect one wheel, it will slow down the performance of the Athletic Machine.

This Is YOU

(Athletic Machine)



Why Good Nutrition Is Important:

1. Superior energy to train and practice longer and harder.
2. Enhance energy in the final minutes of competition and training.
3. Less down time due to injury.
4. Quicker recovery between games, practice and training.
5. Healthy life in the future.

Choices Have Consequences....

Decisions Determine Your Future!



- Increased energy
- Improved recovery from training and competition
- Improved Strength and Body Composition
- Less down time due to injuries



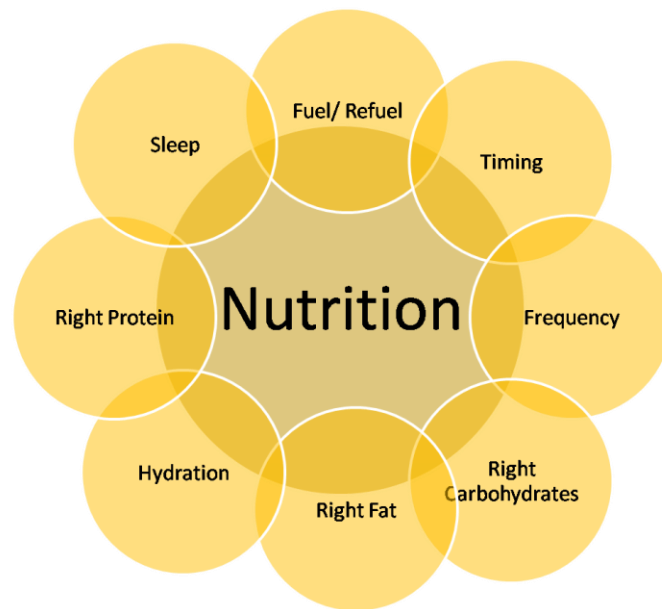
- Poor energy
- Slow recovery
- High body fat and low strength
- Difficulty recovery from injuries



8 Essential for Elite Athletes:

There are 8 essentials to turning the nutritional wheel of athletic performance: Frequency, Good Carbohydrates, Good Protein, Eat Less Bad Fat, Fuel and Refuel, Timing, Hydrate, and Sleep.

Spinning the Nutritional Wheel



“Nutrition can make a good athlete great, or a great athlete good.”

1. Frequency

Why Eating 6-7 small healthy meals is important:

- It will speed up your metabolism, and help you become leaner.
- It will build muscle faster.
- It will increase your energy for training and working out
- It will help you get all the essential nutrients you need for everyday living.

Mistakes:

- Skipping breakfast.
- Lifting on an empty stomach.
- Drinking too many protein shakes-The body will only absorb and use what it needs and the rest will be excreted out.
- Eating fried foods.
- Not eating until you are feel hungry- Eat every 3 hours.
- Not timing your meals out after workouts. (30 min after workout)
- Not staying hydrated



2. Eat Enough Of The Right Carbohydrates

Carbohydrates are the most important ingredient in an athlete's diet. They provide accessible fuel for working muscles and brain function. The higher the intensity of your exercise, the more critical carbohydrates are in providing energy. The lower the intensity of your exercise or on off days, the less important carbs are in providing energy. Without a constant supply of carbohydrates your body must use protein to make energy, compromising muscle building potential. There are 2 Types of Carbohydrates: Low Glycemic and High Glycemic.

Glycemic Index

NOT ALL CARBS ARE CREATED EQUAL!

- Some release sugar into the blood more quickly than others.
- The rate at which blood sugar rises is known as glycemic index.
- When blood sugar rises rapidly, the body responds by producing insulin, which rapidly lowers blood sugar and promotes **fat storage**
- When blood sugar drops, energy levels drop and the ability to train or compete at a high **intensity is decreased**.

So, carbohydrates are categorized into 1st, 2nd and 3rd choice based on **glycemic Index**

1st Choice Carbohydrates

- Foods that supply muscles with a **constant, long lasting energy**.
- Foods that produce a low glycemic response and are low in fat.
- Eat these foods every meal.

- Dried Beans (pinto, lima, chick, navy)
- Green bean
- Broccoli
- Cauliflower
- Blackeye Peas
- Green Peas

- Asparagus
- Brussels Sprouts
- Green peppers
- Spinach
- Onions
- Zucchini
- Turnip Greens



2nd Choice Carbohydrates

- These foods produce a moderate glycemic response.
 - Eat these on active days
 - Eat directly after practice or workout to restore muscle fuel levels
- | | |
|---------------------------|---------------------------|
| ▪ Pasta | ▪ Tortillas |
| ▪ Rye bread | ▪ Pita bread |
| ▪ Whole Wheat Bread | ▪ Grapes, Apples, Bananas |
| ▪ Sweet Potatoes | ▪ Carrots |
| ▪ Oatmeal | ▪ Eggplant |
| ▪ Unsweetened Cereal | ▪ Okra |
| ▪ Brown rice or Wild rice | ▪ Oranges |
| ▪ Cornbread | |

3rd Choice Carbohydrates

- Produce highest glycemic response and may have high fat content
 - Eat only on high activity days
 - If trying to loss fat avoid these foods
 - These foods will make you feel sluggish
- | | |
|--------------------|----------------------|
| ▪ Candy | ▪ Doughnuts/Pastries |
| ▪ Cookies | ▪ French Fries |
| ▪ Sweetened Cereal | ▪ Pizza |

Not Enough Energy= Not Enough of the Right Carbs.



3. Eat Enough of the Right Proteins

Protein is the building block of all human tissue. Protein helps build and repair lean muscle. Protein should be 15 % of all daily caloric intake.

1st Choice Proteins

- Proteins that will develop **lean muscle mass**
 - Sources high in protein and lowest in fat.
 - Less than 12 grams of fat per serving
 - Eat every meal and after training to promote strength gains and growth.
- | | |
|---|---|
| <ul style="list-style-type: none">▪ Egg whites▪ Yogurt (nonfat or low fat)▪ Skim Milk▪ Baked Chicken Breast (white meat, no skin)▪ Roasted Turkey▪ Lean Roast Beef | <ul style="list-style-type: none">▪ Baked Fish▪ Salmon▪ Tuna (packed in water)▪ Ground turkey meat▪ Beans(black, pinto, kidney, white) |
|---|---|

2nd Choice Proteins

- Foods high in protein with moderate amounts of fat.
- 13-25 grams of fat per serving
- Eat only when 1st choice is not available
- Eat if you need to gain weight
 - 85 % Lean Ground Beef
 - 85% Lean Ham
 - Trimmed Choice Steak
 - Trimmed Pork Chops
 - Baked Chicken Strips
 - 2% Milk
 - Regular Yogurt
 - Dark Meat Chicken (no skin)
 - Peanut Butter

3rd Choice Proteins

- Foods that are low quality protein and/ or high in fat.
- Over 25 gram of fat per serving
- Avoid these foods
 - Bacon
 - Hot Dogs
 - Fried Chicken
 - Fried Fish
 - Ham on Bone
 - Processed Meats (bologna, potted meat)

Recommended Daily Protein (grams) Requirements for Athletes:

Body Weight	Strength	Speed	Endurance
88	80	68	56
110	100	85	70
132	120	102	84
154	140	119	98
176	160	136	112
198	180	153	116
220	200	170	146
242	220	187	154
264	240	204	168
286	260	221	182
308	280	238	196
330	300	255	210

4. Eat the Right Fat

Good Fats: Peanuts, Walnuts, Almonds, Fresh Baked Fish, Olive Oil

These Fats Will:

1. Provide the body with sustainable amounts of energy
2. Supply the body with Essential Fatty Acids
3. Act as a carrier for Fat Soluble Vitamins
4. Help prevent heart disease

5. Fuel and Refuel

Never lift on an empty Stomach.

If you are not going to eat a full meal within an hour of a workout out, then eat the following:

Smoothie	Carnation Instant Breakfast
Whey Protein	Yogurt with fresh fruit
Bananna	Bagel
Sports Bar	Toast
Instant Oatmeal	

Refuel After Workouts:

Eat within 30 mins of completing your workouts because it will:

- Limit muscle soreness
- Improve recovery and muscle rebuilding
- Replenish energy and fluid for next event or workout

5. TIMING

The timing of your meals are critical in helping your body recovery and rebuild from workouts and practice. Following workouts your body searches for nutrients that will help repair and replenish the depleted muscle. If you miss these meals it decreases your ability to operated and perform at your highest level.

Breakfast

- 8 oz of Water
- Oatmeal
- Eggs
- Smoothies

PreWorkout

- 8 oz of water
- 1 scoop of whey protein (30 min before workout)

Post workout (30 min.)

- 8-16 oz Critical Reload
- 8-16 oz Chocolate Milk
- Whey protein shake w/ milk

2 hrs Post Workout

- Lean meat-Protein
- Whole Grains
- Green Veggies
- Water

Dinner

- Lean meat-Protein
- Whole Grains
- Green Veggies
- Water

Before Bed

- Casein Protein- Slow Digesting Protein
- Glass of Milk
- Peanut butter Sandwich

Try not to eat after 8 pm unless you are trying increase your body weight.

Your day should go as follows:

AM-Carbohydrates- Light protein

Lunch- Mixed Carbohydrates and protein

PM- Mostly protein and light Carbohydrates

6. Hydration

- 70 % of your body is water
- 5 % level of dehydration can equal a 20 % loss of muscle strength!

PreHydrate: Drink 2-3 cups of water several hours before lifting or practice.

Hydrate: Drink water throughout practice. Do not wait until you are thirsty. It will be too late.

ReHydrate: Drink 3 cups of water for every pound of sweat lost during activity.

Try to drink a gallon of water a day (milk jug)

7. Sleep

Sleep is a major component over looked by many athletes. 8-9 hours of sleep is needed each night to allow the body to full recovery and rebuild. When you sleep your body goes through many cycles of important rebuilding and recovery stages. As you reach deep sleep, your pituitary gland produces HGH, human growth hormone. This important process only takes place unless you get into deep sleep. Maintaining a regular sleep-wake schedule while increase your body's ability take full advantage of natural production of HGH. Go to sleep at 10 pm and wake at 7 am every day.

What a Good night's sleep will do:

- Decrease day time sleepiness and fatigue
- Increase HGH levels
- Improve athletic performance
- Repair the body
- Reduce stress
- Help control body weight issues
- Reduce mood swings

Weight vs. Body Fat

Body weight can be misleading in determining your fitness level. Is your body weight fat or muscle? A consistent training program will increase lean body mass (muscle) and aid in reducing body fat. Muscle is active energy/ dependant tissue that burns calories to function. Therefore, the most effective way to improve body composition is the combination of a healthy nutrition plan and a good exercise program that increase lean body mass. A person that loses weight with exercise will reduce body fat and add muscle but may become slightly “heavier” according to the scale. Don’t be discouraged, because muscle weighs more than fat. Your goal should be to maintain a percentage of 12-15% body fat for males and 16-19% for a female. By reducing body fat you will look better, feel better, be stronger, more athletic, and most importantly be healthier.

Losing Body Fat

Reducing body fat is simple as reducing your caloric in-take by 500 calories a day. This would result in a loss of 1 pound of fat per week. To lose 1 pound of fat you must burn 3,500 calories. The safest and easiest method to burn 3,500 calories is to decrease your daily caloric intake by about 500 calories for 7 days. An example of this would be as follows: if you are eating 3,000 calories a day on average, then you would eat 2,500 calories per day for 7 days to burn 1 pound of fat per week. In order to maintain lean body mass and maintain a high metabolism you should not lose more than 2 pounds of per week.

If you need to estimate the number of calories needed to maintain your weight you can use the following formula. The formula is used to determine the Resting Metabolic Rate (RMR) of an individual. The RMR is the total numbers of calories needed to maintain ones current weight. Losing and gaining can be simple as adding or subtracting 500 calories a day from the calculated RMR.

Resting Metabolic Rate (RMR)

- 1) Your weight in pounds _____ / 2.2 = _____
- 2) Your height in inches _____ x 2.54 = _____
- 3) $9.6 \times \# \text{from step 1}$ = _____
- 4) $1.8 \times \# \text{from step 2}$ = _____
- 5) $4.7 \times \text{your age in years}$ = _____
- 6) $655 + \# \text{from step 3} = ______ + \# \text{from step 4} = ______ - \# \text{from step 5} = ______ \text{ (This is your RMR or resting metabolic rate)}$
- 7) $\text{RMR} ______ \times \text{Activity Factor} ______ = ______ \text{ (This is the amount of calories you need to maintain current weight)}$

Activity Factor:

Sedentary (do little activity) =1.2

Slightly active (active 1-3 times per week) =1.375

Moderate active (active 3-5 times per week) =1.55

Very active (active 6-7 times per week) = 1.75

Lose 1 pound per week:

8) # from step 7 _____ -500=_____

Gain 1 pound per week:

9) # from step 7 _____ + 500=_____

How To Lose Body Fat:

1. Avoid 3rd choice proteins, Eat mainly 1st choice proteins.
2. Avoid 3rd choice carbohydrate, Eat mainly 1st choice carbohydrates.
3. Increase water intake
4. Avoid sweetened drinks (sweet tea, soda, kool-aid)
5. Do Not Skip meals. Eat 4-5 small healthy meals a day of mainly 1st choice proteins and carbs.
6. To lose 1lb of fat you must burn 3,500 calories. The safest method to burn 3,500 calories is decreasing you daily caloric intake by 500 calories for 7 days.

How To Gain Lean Body Mass:

1. Lift weights
2. Do Not Skip a Meal
3. Eat more (increase caloric intake by 500 calories/day)
4. Eat 4-5 large healthy meals and 2-3 medium size snacks between meals
5. Increase 1st and 2nd choice protein intake.
6. Increase 1st and 2nd choice carbohydrate intake.
7. Drink mostly milk and water.

VIKING SPEED & STRENGTH

"GET HUGE SHAKE"

Ingredients:

- 4 scoops of 100% whey protein powder
- 2 Quarts of Milk
- 2 Cups of Skim Milk Powder
- 4 Tablespoons of Peanut Butter
- 4 Scoops of Ice Cream
- 4 Tablespoons of Corn Syrup

Directions

Blend all ingredients and pour into two plastic milk jugs and keep in the fridge

Week 1: Make one Gallon
 One 8 Once glass first thing in the morning

Week 2-3: Make Two Gallons
 One 8 ounce glass in the morning
 One 8 ounce glass before bed

Week 4 Make Three Gallons
 One 8 once glass in the morning
 One 8 once glass in the afternoon
 One 8 ounce glass before bed

Repeat Week Four Until.....

Must Consume All 7 Day Of The Week

VIKING SPEED & STRENGTH

"BRUTLY HUGE EATING PLAN"

Meal #1 Breakfast

- 4-5 egg whites or whole eggs
- 3 slices of toast with jelly
- 1-2 bowls of cereal (Cheerios)
- 2 cups of milk and 1 cup of juice
- 1-2 fruit

Meal #2 Mid Morning Snack

- peanut butter sandwich or Get Huge Shake

Meal #3 Lunch

- 2 large turkey sandwich or tuna sandwich; or meat and 3 vegetables
- 2 fruits
- 2 cups of milk

Meal #4 Mid-Afternoon Snack

- 1 can of tuna or white chicken on wheat bread
- 1-2 fruits
- 1 cups of milk

Meal #5 Dinner

- 1 large chicken breast, beef, or fish
- 1 baked or sweet potato
- 3 slices of whole grain bread
- 1 large salad
- 2 cups of milk

Meal #6 Late Night Snack

- Sandwich, sub of choice
 - 1 fruit
 - 2 cups of milk
- or
- Get Huge Shake

Note:

Drink 8 or more glasses of water a day

“GOMAD”

GALLON OF MILK A DAY Weight Gainer Program GAIN 25 LBS OF MUSCLE IN 25 DAYS

Weekly Progression:

Week 1: eat every 3 hours

Week 2: eat every 3 hours + $\frac{1}{4}$ gallon of whole milk a day (4 cups a day)

Week 3: eat every 3 hours + $\frac{1}{2}$ gallon of whole milk a day (8 cups a day)

Week 4: eat every 3 hours + $\frac{3}{4}$ gallon whole milk a day (12 cups a day)

Week 5-8: eat every 3 hours + 1 gallon whole milk a day (16 cups a day)

GOMAD Meal Plan:

Breakfast: 2 $\frac{1}{2}$ cups of milk, 3-5 eggs, oatmeal or grits, fruit

Snack: 2 $\frac{1}{2}$ cups of milk, peanut butter and jelly sandwich, banana

Lunch: 2 $\frac{1}{2}$ cups of milk, Chicken breast sandwich, mixed veggies, apple

Snack: 2 $\frac{1}{2}$ cups of milk, mixed nuts, orange

Dinner: 2 $\frac{1}{2}$ cups of milk, Spaghetti w/ meat sauce, salad

Pre bed: 3 $\frac{1}{2}$ cups milk, peanut butter sandwich

Note: Follow meal plan as close as possible. You can substitute similar foods when these are not available.

To gain weight you must eat more than you are doing NOW. Eating frequently and Drinking a Gallon Of Milk A Day (GOMAD) is a fast and cheap way to gain weight quickly. A gallon of milk is around \$3.00. For 1-2 months drink only water and milk (mostly milk), instead of drinking soda, tea, and other drinks.

How GOMAD Works

GOMAD equals 2400 kcal a day. Eat every 3 hours and you'll get 5000 kcal/day. “Hardgainers” must eat at least 5000 kcal per day to gain weight.

- **High Protein.** You need protein to build muscle & prevent muscle loss. 1 gallon of milk contains 120 g of protein. If your goal weight is 200 lbs, you need to get at least 200 grams of protein a day. Drinking a GOMAD and following the Meal Plan will allow you to meet your protein needs.
- **Saturated Fat.** Saturated fat increases testosterone levels, which means more muscle and strength growth.
- **High Carbs.** The dextrose in whole milk spikes insulin, a muscle building hormone which tells your body to move the proteins into your muscle for growth.

Is GOMAD Safe? Yes. Once you reach your goal weight-within 1-2 months-go back to a regular diet.

It's not what you do... its how you do it! Be consistent and follow the program daily. Do not miss meals and most importantly **TRAIN HARD, FAST, AND INTENSE.**

Shopping List

Protein

Chicken Breast
Turkey Breast
Lean Chicken Deli Meat
Lean Roast Beef Deli Meat
Lean Turkey Meat
Lean Ham
Salmon-can or fresh
Chicken-can or fresh
Tuna- can or fresh
Halibut
Shrimp
Lean Steak
Ground Turkey Breast
Ground Chicken Breast
Egg whites
Low fat-Cottage Cheese
Peanut Butter

Carbohydrates

Sweet Potato
Bake Potato
Brown Rice
Wild Rice
Whole Wheat Pasta
Whole Wheat Bread
Whole Wheat Buns
Black Beans
Red Beans
Baked Beans
Apple/Pears
Orange/ Grapefruit
Banana
Peach/Plum
Grapes- Red or Green
Fat Free Yogurt
White/ Brown Rice
Whole Wheat Waffles
English Muffins
Raisin Bran
Wheaties
Pancakes
Wheat Bread
Italian Bread

Drinks

Gallon of Water each day
2% Low fat or Skim Milk
Crystal Light-Sugar Free
Orange Juice w/ Calcium

Vegetables

Broccoli
Cauliflower
Green Beans
Green Peas
Green/ Red Peppers
Tomato
Carrot
Celery
Cabbage
Cucumber
Onion
Lettuce
Asparagus
Spinach
Collard Greens
Artichoke
Kidney Beans
Kidney Beans
Mixed Vegetables

Snacks

Pretzels
Baked Tortilla Chips
Baked Lays
All Fruit
Yogurt
Cottage Cheese

Desserts

Jello
Angel Food Cake
Oatmeal Raisin Cookie
Chocolate Pudding
Sherbet
Frozen yogurt

Smoothies

Banana Smoothie

16 oz 2% Milk
1 cup Ice-add accordingly to thicken
1 banana
1 tbsp natural Coco
1 tbsp ground flax seed
1scoop why protein
1 tbsp natural peanut butter

Blueberry Pineapple Smoothie

2 cups of Baby Fresh Spinach
1 cup Frozen Blueberries
1 banana
1 Cup Vanilla Yogurt
¼ cup of chopped fresh Pineapple
¼ cup frozen dark sweet cherries
¼ cup orange juice

Low Carb Strawberry Smoothie

1 cup of frozen Strawberries
¼ cup soft tofu
1 cup Milk
1 tsp splenda
120- gram scoop Low-Carb Soy Power

Breakfast Protein Smoothie

1 cup skim milk
1 to 2 scoops of vanilla protein powder
1 tbsp cocoa powder
1 banana slice
1 tbsp natural peanut butter
3-4 drops stevia liquid (nat. sweetener)
4-5 ice cubes

Banana Berry Protein Smoothie

1 cup Berries (any mix)
½ banana
½ milk
1 scoop of whey protein powder
¾ cup of yogurt
1 cup ice

Chocolate Banana Soy Smoothie

1 cup Soy Milk (or plain milk)
½ banana
2 tbsp chocolate syrup
3 ice cubes

Sunny Start Smoothie

1 cup orange juice
2 bananas
2 tbsp of honey
1 orange
¼ cup granola

Very Berry Soy Protein Smoothie

½ scoop protein powder
3 tbsp low fat, dairy free (soy) yogurt
2/3 cup fresh blueberries
¾ cup soy milk
¼ cup water
2 ice cubes

Purple Haze Smoothie

6 oz plain yogurt
1 cup frozen blueberries
30-40 grams pomegranate seeds
4-6 ice cubes
1 scoop protein powder (optional)

Dreamsicle Smoothie

6 oz plain yogurt
1 cup orange sherbert
1 tangerine
6 vanilla wafers
¼ cup of lowfat whipped cream (topping)
4-6 ice cubes
1 scoop protein powder (optional)

Peachy Smoothie

6 oz plain lowfat yogurt
1 cup frozen chopped peaches
½ cup frozen red raspberries
4-6 ice cubes

Weight Gain Self-Test

Dan Riley, Houston Texans

Before you consider turning to Supplements, be sure you are disciplined enough to do the basics.

Some athletes have a hard time gaining weight especially during the season. Others complain of fatigue and lack of energy. These are signs of inadequate caloric intake, and or low carbohydrate consumption.

The active athlete needs a significant number of the right calories. The key is making sure you are eating enough calories to generate maximum gains in strength, and recover completely from exercise. To reach your full potential physically you must develop a discipline approach to eating and sleeping. HOW DISCIPLINED ARE YOU? Put a ✓ by the one's you do, and an X by the one's you don't.

DO YOU...

- Eat breakfast 7 days a week?
- Consume at least ¼ of your daily calories at breakfast?
- Eat at least 3 meals a day at approximately the same time?
- Consume a nutritious snack at mid-morning and mid-afternoon?
- Eat at least 3-5 pieces of fruit a day?
- Eat at least 2-3 vegetables a day?
- Consume 20-30 grams of fiber a day?
- Consume 60 % of you calories from carbohydrates?
- Eat from all food groups?
- Consume your necessary daily calories before the day is over?
- Consume 300 grams of complex carbohydrates immediately after a game or workout?
- Eat a pre workout snack 1 hr before exercise?
- Eat a post workout snack with-in 30 minutes of exercise?
- Drink 8 (8 ounces) of water a day?
- Go to bed about the same time each night?
- Sleep 8 hours?
- Wake up approximately the same time each morning?
- Avoid the habit of sleeping in?

If you cannot answers yes to all the above you will make it difficult to maintain or increase your bodyweight!

“EAT FOR PERFORMANCE NOT TASTE”

Nutrition Resources:

<http://www.myfooddiary.com>

<http://www.livestrong.com/myplate>