

# Peru State College



## Bobcat Strength and Conditioning Nutrition Manual

# As an Athlete, What Should My Diet Look Like?

## CARBOHYDRATES

Carbohydrates are the body's *primary* source of energy and should make up 60% of your daily intake.

The majority of carbohydrate intake should come from complex carbohydrates (i.e. grains) and not simple sugars (i.e. candy bars, soda, instant oatmeal, mashed potatoes). **If carbohydrates are available from your diet, the body will use protein ingested towards *recovery, repair, and the rebuilding of muscle fibers.***

Carbohydrates not used as fuel will be stored as extra calories...FAT.

**Build your diet according to the 3, 2, 1 rule:**

3 parts carbohydrates, 2 parts protein, and 1 part fat.

## PROTEIN

The body can assimilate 30 – 50 grams of protein every two to three hours. If the carbohydrate requirement is met, protein will be synthesized and used to repair and rebuild muscle fibers, making them *larger and capable of greater force production* than before.

Best taken:

- Pre-workout: small amount (~ six grams), one hour before
- Post-workout: large amount (double your norm), one hour following your workout “the window of opportunity.”

Proteins not used will be stored as extra calories...FAT.

An athlete needs 1.0 to 1.5 grams of protein per kilogram of body weight daily

## FATS

Fat should make up no more than 20% of your total caloric intake. It is important not to completely cut fat from your diet to ensure vitamins A, D, E & K.

## SUPPLEMENTS

Supplements do what the name says...they *supplement* a balanced diet.

If it sounds too good to be true, it probably is.

## WATER

As an athlete your body requires 1 to 1.5 gallons of water per day.

# Grocery List

<p><b>Step # 1</b> <b>Vitamin E</b> Almonds Avocado or Guacamole Corn Oil Mayonanaise Olive Oil Peanut Butter Peanuts Salmon Soybean Oil Sunflower Seeds or Oil Walnuts</p>	<p><b>High Priority List – Vitamins A &amp; C</b> Broccoli Cantaloupe Dried Papaya Red Peppers Red Marinara Salsa Tomato Juice Tomato Sauce Tomatoes V8 Vegetable Drink Winter Squash</p> <p>Brussel Sprouts Dark Salad Greens Grapefruit Guavas Mandarin Oranges Mangoes Sweet Potatoes Tangerines Watermelon Yams Egg Yolk</p>		<p><b>Vitamin A</b> Apricots Carrots Cheese Green Peas Peaches Pumpkin Skim Milk Yogurt Chili Powder Tomatoe Catsup or BBQ Green/Yellow Pepper</p>	<p><b>Vitamin C</b> Cauliflower Green Beans Kiwi New Potatoes w/Skin Oranges Pineapple Raisins Strawberries Pea Pods Radish</p>
<p><b>Step # 2</b> <b>Best Choice Carbs</b> Acorn Squash Black Beans Butter Beans Cherries Cucumbers or Pickles Egg Noodles Eggplant Fettucini Green Beans Kidney Beans Lentils Mushrooms Nectarines Onions Pears Plums Split Peas Summer Squash</p>	<p><b>Second Choice Carbs</b> All Bran Cereal Baked Beans Bran Chex Brown or Wild Rice Cheerios Cream of Wheat Lima Beans Mini or Shredded Wheat Multi-Grain Bread New Boiled Potatoes w/Skin Oat Bran Oatmeal Pita Bread Rye Bread Special K Cereal Tortillas Unsweetened Fruit Juice Whole Grain Bread</p>	<p><b>Second Choice Carbs</b> Apples Banana Bread Bananas Cornmeal Grapes Green Peas Macaroni Oatmeal Cookies Popcorn Pound Cake Raisins Ravioli Spaghetti Sweet Corn Sweet Potatoes Water Crackers Wheat Crackers Whole Wheat Flower</p>	<p><b>Third Choice Carbs</b> Baked Russet Potatoes Candy Cartoon Character Cereals Doughnuts French Bread French Fries Golden Grahams Grapenuts Hashbrowns Mashed Potatoes Melbs Toast Puffed Rice Refried Beans Sweetened Drinks Total Cereal White Bread White Flour White Rice</p>	<p><b>Remember:</b> Fresh produce is best, but to avoid spoilage and ensure availability buy a combination of fresh, frozen and canned fruits and vegetables</p> <p>Try to include carbs from all three groups when shopping</p> <p>When not active, reduce your total carb intake (esp. third choice).</p>
<p><b>Step # 3</b> <b>Best Choice Protein</b> 90% Ground Beef 90% Ground Turkey 90% Lean Ham Beans &amp; Peas Chicken – White Meat Low Fat Cottage Cheese Broiled Fish or Seafood Skim Milk Pork Roast Turkey – Skinless Tuna in Water Whole Grains Yogurt - Skim</p>	<p><b>Second Choice Protein</b> 2% Milk 85% Ground Beef 85% Ground Turkey 85% Lean Ham 85 % Lean Meats Low Fat Cheese Low Fat Yogurt Regular Cottage Cheese Regular Yogurt Trimmed Lamb Trimmed Beef Brisket Turkey Sausage Whole Milk</p>	<p><b>Second Choice Protein</b> Baked Chicken Nuggets Chicken – Dark Meat Low Fat Pudding Nuts or Seeds Peanut Butter Ricotta Cheese Skim Mozzarella Cheese Trimmed Choice Steaks Trimmed Pork Chops Turkey – Dark Meat</p>	<p><b>Third Choice Protein</b> 75% Ground Beef 75% Ground Turkey Bacon Beef or Pork Ribs Chicken – with Skin Fried Chicken Fried Fish or Seafood Ham on Bone Ice Cream Regular Cheese Regular Encased Meats Whole Eggs</p>	<p><b>Remember:</b> Concentrate on best choice items as your source of protein</p>

# Food Preparation

The way meats and foods are prepared are very important!  
Vitamins and minerals are lost during preparation and fat content is also affected by the way foods are prepared. This list will help you prepare food at home or help you when eating out. If you have any concerns, please do not hesitate to ask.

## Best

Baked

BBQ

Boiled

Grilled

Poached

Smoked

## Good

Braised

Broiled

Roasted

Rotisserie

Simmered

Stewed

## Worst

Deep Fried

Pan Fried

Sauteed

## Eating on the Go/Fast Food Choices

Fortunately, it has become easier to eat healthy on the road.

### Good Choices

**Subway:** load on the vegetables, especially spinach. Avoid the meatball and pastrami.

**Burger King & McDonalds:** Broiled chicken sandwich, no mayo, salad w/low fat dressing. No fries.

**Pizza:** Cheese with extra sauce, vegetables, ham/pineapple. Avoid white sauces and fatty meats.

**Taco Bell/Mexican:** Bean burrito, chicken taco/burrito. Ask for boiled beans if possible.

Avoid soda, sugary drinks, and milkshakes. Water and skim milk when possible.

<b>Time</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
8:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
8:30							
9:00							
9:30							
10:00	Snack # 1	Snack # 1	Snack # 1	Snack # 1	Snack # 1	Snack # 1	Snack # 1
10:30							
11:00							
11:30							
12:00	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
12:30							
1:00							
1:30							
2:00	Snack # 2	Snack # 2	Snack # 2	Snack # 2	Snack # 2	Snack # 2	Snack # 2
2:30							
3:00							
3:30							
4:00							
4:30							
5:00	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner
5:30							
6:00							
6:30							
7:00							
7:30							
8:00							
8:30	Snack # 3 - 4	Snack # 3 - 4	Snack # 3 - 4	Snack # 3 - 4	Snack # 3 - 4	Snack # 3 - 4	Snack # 3 - 4

It is better to eat bad meals than not at all – do not skip meals!!!

# Pre-game and Pre-practice Meals

- Allow enough time for digestion. Eat meals at least three hours before an event.
- Choose a meal that's high in starch. Starch is easy to digest and helps steady the levels of blood sugar.
- Consume only moderate amounts of protein. Proteins take longer to digest than starch and high protein foods may lead to increased urine production, adding to dehydration.
- Limit fats and oils as they take considerably longer to digest.
- Restrict sugars. Sweets cause rapid energy swings in blood sugar levels and result in low blood sugar and less energy.
- Avoid drinks that contain caffeine. Caffeine stimulates the body to increase urine output which can contribute to dehydration.
- Watch out for foods that produce gas. Certain raw vegetables, fruits, and beans may cause problems for some athletes.
- Within these guidelines, choose foods you like to eat.
- Remember to drink plenty of fluids with your pre-game meal.

## Sample Pre-game Meals

### Meal 1

Cereal (avoid sugar cereals)  
Banana Slices  
Milk (low-fat or skim)  
Toast/Jam  
Juice\*  
Water

### Meal 2

Chicken Noodle Soup  
Crackers  
Orange  
Low-fat Yogurt  
Water

### Meal 3

Poached Egg  
Toast/Jam  
Milk (low-fat or skim)  
Juice\*  
Water

### Meal 4

Pancakes (limit butter and syrup)  
Applesauce  
Milk (low-fat or skim)  
Juice\*

### Meal 5

Turkey Sandwich/bread & lettuce  
Apple

Milk (low-fat or skim)  
Juice\*  
Water

### Meal 6

Cottage Cheese/fruit  
Breadsticks  
Milk (low-fat or skim)  
Juice\*

### Meal 7

Spaghetti/marinara sauce  
Bread  
Milk (low-fat or skim)  
Juice\*  
Water

\*Juice is your choice except for prune.

## Sample Daily Meal Plan

8:00 am	8:00 am – 12:00 pm	12:00pm – 1:00pm	2:00 pm – 3:00 pm	5:00 pm – 7:00 pm
Breakfast	Snack # 1 x 2	Lunch	Snack # 2	Dinner
Eat <b>Food</b> No Supplements	Eat twice during this time frame  Food and/or supplements	Eat <b>Food</b> No Supplements	Food and/or supplements	Eat <b>Food</b> No Supplements
<b><u>Lean Protein</u></b> Egg Beaters Egg Whites Cottage Cheese (fat free) Ham Low-fat Yogurt Omletes Skim Milk Tuna	<b><u>Supplements</u></b> Whey Protein Muscle Milk Etc.  <b><u>Food</u></b> <u>½ Sandwich w/ Meat:</u> Ham Roast Beef Tuna Turkey etc.  Bagels Baked Lays Beans Fresh Fruit Pasta Potatoes (not fried) Rice Vegetables Whole Grain Breads	<b><u>Lean Protein</u></b> Chicken Breast Lean Ground Sirloin Lean Ground Turkey Shrimp Tuna Turkey Breast White Fish <b><u>Deli Meats:</u></b> Ham Roast Beef Turkey	<b><u>Supplements</u></b> Whey Protein Muscle Milk Etc.  <b><u>Food</u></b> <u>½ Sandwich w/ Meat:</u> Ham Roast Beef Tuna Turkey etc.  Bagels Baked Lays Fresh Fruit Pasta Potatoes (not fried) Rice Vegetables Whole Grain Breads	<b><u>Lean Protein</u></b> Chicken Breast Lean Ground Sirloin Lean Ground Turkey Shrimp Tuna Turkey Breast White Fish <b><u>Deli Meats:</u></b> Ham Roast Beef Turkey
<b><u>Quality Carbohydrates</u></b> Bagels <b><u>Cereals:</u></b> Cheerios Grape Nuts Honey Oats Special K  Fresh Fruit Oat/Grain Muffins Oatmeal Potatoes (not fried) Raisins Whole Grain Breads	<b><u>Quality Carbohydrates</u></b> Baked Lays Beans Fresh Fruits Potatoes (not fried) Rice Sweet Potatoes Vegetables Whole Grain Breads	<b><u>Quality Carbohydrates</u></b> Baked Lays Beans Fresh Fruits Potatoes (not fried) Rice Sweet Potatoes Vegetables Whole Grain Breads	<b><u>Quality Carbohydrates</u></b> Baked Lays Beans Fresh Fruits Potatoes (not fried) Rice Vegetables Whole Grain Breads	<b><u>Quality Carbohydrates</u></b> Baked Lays Beans Fresh Fruits Potatoes (not fried) Rice Sweet Potatoes Vegetables Whole Grain Breads

# Food List for Quality Proteins and Carbohydrates

This list is limited and in alphabetical order – there are other options not mentioned here.  
If you have questions, do not hesitate to ask.

## Proteins

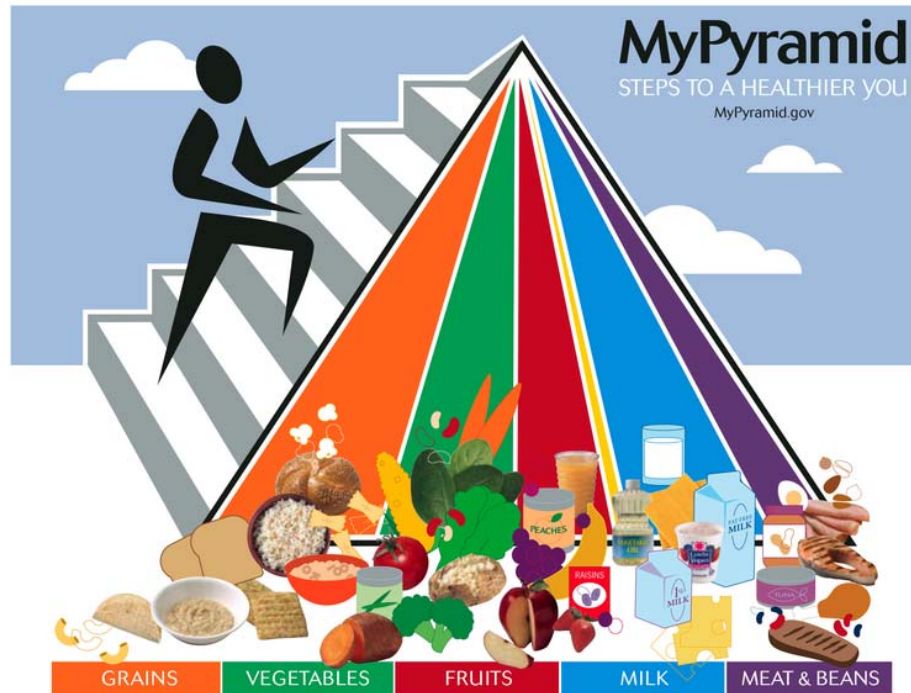
Buffalo  
Chicken Breast (skinless)  
Crab  
Egg Beaters  
Egg Whites  
Haddock  
Lean Ground Beef  
Lean Ground Turkey  
Lean Ham  
Lobster  
Low-fat Cottage Cheese  
Orange Roughy  
Salmon  
Shrimp  
Swordfish  
Top Round Steak  
Top Sirloin Steak  
Trout  
Tuna  
Turkey Breast (skinless)  
Whey Protein  
Soy\*  
Legumes\*  
Beans/Rice\*

\*Not complete proteins/  
lack all essential amino acids

## Carbohydrates

Apples  
Bagels (low-fat)  
Baked Potato  
Bananas  
Barley  
Beans  
Beets  
Broccoli  
Cantaloupe  
Carrots  
Corn  
Corn Flakes  
Fat-free Yogurt  
Grape Nuts  
Grapes  
Green Beans  
Honeydew  
Lima Beans  
Oatmeal  
Oranges  
Pasta  
Peaches  
Pears  
Peas  
Pumpkin  
Raw Green Vegetables  
Spinach  
Squash  
Steamed Brown Rice  
Steamed Wild Rice  
Strawberries  
String Beans  
Sweet Potato  
Watermelon  
Whole Wheat Breads  
Yams

# Weight Loss Basics



**Weight Train:** The more lean muscle mass you have, the more calories you burn.

**Eat Regularly and Often:** try to eat every 2 to 3 hours (ELMO – eat less more often).

**Portions Control:** Bigger is not better when it comes to food. A portion should be the size of your fist or palm.

**Eat a Variety of Food:** If you eat the same food every day, you will get the same nutrients every day.

**Prevent Hunger:** It is better to eat bad than nothing at all. If you wait until you are hungry you increase the probability of overeating. **Protein** rich meals satisfy your hunger longer and help maintain lean body weight.

**Carbohydrates are Not Bad, Extra Calories are Bad:** Carbohydrates are your body's primary energy source. Choose complex carbohydrates and not sugars.

**Increase Your Fruit and Vegetable Intake:** These make for great low calorie snacks and desserts and are full of needed vitamins and minerals.

**Reward Yourself:** If you stick to a strict diet, more than likely it won't last very long. Try to eat as healthy as possible during the week, and allow yourself to indulge a little on the weekend.

**Limit Excess Calories:** Reduce fried foods and sugars from your diet. Most drinks such as beer, soda, etc are full of excess calories. Try to have water or low-fat milk instead.

# Hydration and Fluid Requirements for Athletes

Fluids in the body have numerous functions and are essential to well being and life. Fluids form blood, aid digestion and prevent the body from overheating. For an Athlete, excessive sweating is an every day occurrence which must be followed by the replenishment of the lost water to stop the body from overheating. When sweat evaporates from the skin, it cools down the body and regulates the body temperature. If the athlete has not been drinking enough water, the body will begin to overheat leading to low performance and even dangerous consequences. The amount of sweating differs from person to person and can also be influenced by external factors like temperature, humidity, altitude and clothing.

An Athlete must be well aware of the benefits of drinking adequate water, and how the amount of water in the body can effect the body's functioning. A well hydrated athlete will perform better and avoid the dangers associated with dehydration. Hydration has an important function of cooling down the body. As an Athlete, **you must know the importance of drinking enough water by making it a daily routine.** Keep in mind that drinks with caffeine act as a diuretic and work against hydration. A cup of coffee contains 1.5 micrograms of caffeine. Alcohol consumption has the effect of heating up the body, and again has the opposite effect of hydration.

## Avoiding Dehydration

Dehydration is caused due to the lack of adequate drinking water. The first signs of dehydration are a lack of energy, which could further lead to headaches, dizziness and disorientation. The proper manner to hydrate the body is to replenish the water while it is being lost. There is no benefit in replenishing the body's fluids after the training session, as it could lead to dehydration and loss of performance. The following chart shows how the body is affected through increasing levels of dehydration.

1-2% - Thirst and weakness

3-4% - low performance, dry mouth,

5-6% - Increased body temperature, headache, irritability

7-10% - Dizziness, disorientation, heat stroke and even death

## The Right Way to Drink Water

Water intake should be properly planned before the exercises, during the exercise and after the exercise.

**(a) Before the training event** – Consume 14-18 ounces of water 2 hours before the exercise. The 2 hour gap is enough to fully hydrate the body and leave enough time for the excess water to come out of the system. Plain water is the best source of hydration. Take 5-7 ounces of water just 15 minutes before the exercise to be fully hydrated before the physical activity.

**(b) During the exercise** – The athlete must constantly keep hydrating the body every 20-25 minutes with 5-10 ounces of water. Sports drinks are also a good idea during exercise as they help to replenish the sodium lost through perspiration.

**(c) After the exercise** – The athlete should be encouraged to replace all the lost fluid by consuming approx. **20 ounces of fluid for every pound of weight lost.**

**You should drink enough H<sub>2</sub>O to urinate at least 4x/day.**