Maverick Nutrition

One of Mesa State Strength and Conditioning's defining philosophies is Regeneration. Regeneration is the process of repairing the damaged tissue caused by lifting and training the body, two of the most important parts of recovering from a workout are adequate rest and solid nutrition. We want to try to keep nutrition as simple as possible, EAT raw non processed foods about every two hours, always including a type of lean protein, good fat and drink at least a gallon of water per day. The amount of nutrients an athlete takes in will affect whether the athlete gains weight or loses weight, as long as you are training consistently you should always try to at least match your caloric expenditure. If you are eating more that your caloric expenditure you will gain weight, if you take in less than your caloric expenditure you will lose weight. Think about the big 4 every time you decide to eat; Lean Protein, Complex Carbohydrates (Color), Good FAT, and a type of Produce.

Real food is always the best but supplements can be very beneficial especially when we are crunched for time. I am referring you to Advocare products because Advocare products are not formulated with any ingredients banned by NCAA, it also is the only supplement company I have seen with a sports advisory board and a medical advisory board insuring high quality. The NCAA has three categories they place supplements in; Banned, Non-Permissible and Permissible products. Non-Permissible - A university is NOT ALLOWED TO PROVIDE a non-permissible supplement to the athlete. However, the athlete can purchase and use any non-permissible supplement as long as it does not contain a banned substance. Permissible - A university is free to provide a permissible supplement to the athlete. Here is a list of permissible Advocare products to introduce to your diet: Meal Replacement Shakes and/or Bars, Omega Plex, V100, Rehydrate, and Spark. Rehydrate is similar to Gatorade without the excess sugar, replacing the key electrolytes lost during exertion. Spark is a pre workout mental focus energy drink without the excess sugar. The Omega Plex is an Omega 3 supplement to help with good blood flow and nutrition transportation. The V100 is a multi-vitamin specifically designed for NCAA athletes, a good multivitamin is important because it is almost impossible to get all these nutrients through food alone. Meal replacement shakes or bars within an hour after training is very important because the body is at a heightened state to metabolize and deliver nutrients to the affected areas. It is also important to take in meal replacement shakes before going to bed because during sleep the athlete's body is repairing the damage muscle tissue caused from training. Advocare has many other products that help in advancing your training but I feel the list above covers the main needs. You can order the supplements from this link: https://www.advocare.com/10043707/Store/default.aspx. Another strong company is EAS.

The Mesa State Strength and Conditioning Team is a strong believer in learning from others, why recreate the wheel when it works so well. In preparing for an interview with Mesa State College, Coach Linsacum researched over 30 strength and conditioning programs at major universities throughout the country. During the research Coach ran across this nutrition advice/program from the University of Pittsburgh's Strength and Conditioning Team. He found it complete, well worded, and follows many of the tips above which are generally known throughout the industry. The following was taken from their website:

Answer the questions truthfully and count the number of questions that you answer, "YES" to.

1. Do you eat breakfast 7 days a week?

2. Do you eat foods from at least 3 different food groups at breakfast?

3. Do you eat 3 balanced meals at approximately the same time each day?

4. Do you eat a nutritious mid-morning and mid-afternoon snack?

5. Do you eat at least 3 pieces of fresh fruit each day?

6. Do you eat at least 5 servings of fresh vegetables each day?

7. Do you choose high fiber breads and cereals?

8. Do you eat a large serving of lean or low-fat protein at each meal?

9. Do you eat adequately to maintain your bodyweight (unless on a fat loss/muscle gain program?

10. Do you eat a pre-exercise snack within 1 hour of beginning exercise?

11. Do you eat a post-exercise snack within 30 minutes of completing exercise?

12. Do you eat a balanced meal within 2 hours of completing exercise?

13. Do you drink half of your bodyweight in ounces of water each day (plus 16oz/hour of exercise?

14. Do you sleep at least 7-8 hours each night?

15. Do you go to bed at the same time each night and get up at approximately the same time in the morning?

16. Do you take a multivitamin rich in the antioxidant (vitamin C & E) in the morning and evening?

SCORE:_____

Rating Scale

13-16: Healthy and performing like a Champion

9-12: Losing some performing energy

1-11: Need to see a Nutritional Advisor

Performance Nutrition vs. Nutrition for Health/Fitness (Wellness)

Performance nutrition is not the "health/fitness nutrition" that focuses on trying to cut all fat out of one's diet while counting and cutting calories, it is however the only healthy way to meet the intense demands placed upon the athlete's body whether in or out of season. The problem with the information people hear about on nutrition, dieting and loosing fat is that it's not working with the body but against it. Those are not proper ways for Division I collegiate athletes to care for their bodies.

Since muscle burns fat all day long the best way for an athlete to get rid of excess fat is to increase lean muscle mass through intense weight training, thus increasing the metabolic rate and burning more calories 24 hours a day. The only way to increase lean muscle mass is to feed it properly and with enough calories, without overtraining it. The human body is "smart," it will function like it's supposed to when it is taken care of, but when it's not taken care of it will do things to survive. For instance, when an athlete doesn't eat enough calories or tries not to eat any fat at all the body will not only store excess fat but it will also breakdown protein and lean muscle mass.

KEY PRINCIPLE

Know what to eat, when to eat it and how much to eat of it No foods are completely off-limits or "bad for you" if one understands how to apply this principle to your diet. Fat is an important part of an athlete's diet, and so are sugars. The right choices, at the right time, in the right amount.

Eating for performance is simply making great, good, and okay choices of foods while understanding and applying this principle so that when combined, the choices all end up "good" ones.

PERFORMANCE NUTRITION DEFINED

Understanding how the body responds and uses food, and applying that knowledge in such a way that the choices made in selecting food will help the athlete reach his/her athletic goals, not detract from them.

PRE-GAME ANALYSIS

Performance nutrition focuses on enabling and enhancing the athlete's body to respond positively to the three major physiological adaptations that take place during high intensity training/athletics.

1. Performance Enhancement - Knowing what to eat and when to eat it will help an athlete maintain proper energy levels and allow the body to use the appropriate energy systems to compete/train at the highest level of intensity possible.

2. Maximum Recovery - Training (Practice/competition, lifting or running) at a high enough level to make gains takes proper recovery. Again, knowing what to eat and when to eat it is the key

to maximum recovery which enables maximum gains. Without proper recovery the athlete will begin to over-train which begins a process of breaking down which can lead to injuries and serious health problems.

3. Body Compositional Changes - The goal of training is to increase lean muscle mass, while decreasing excess body fat. This occurs only when one knows what to eat, when to eat it and how much to eat of it in relationship to your body type.

The challenge is this - Put aside everything you have heard or think you know about "proper" nutrition and give yourself a chance to not only be a healthy athlete but also an athlete who is reaching his/ her maximum potential. To easily understand Performance Nutrition a simple model of a sporting event has been chosen. The reason for choosing this model is that once you understand the principles behind Performance Nutrition, you will be able to make wise food choices easily without being a sports nutritionist or a calorie counter. Normal nutritional/dietary "systems" do not work because the athlete must know so much/spend so much time looking stuff up and writing things down. It's time to put those images out of your head of the "Pyramid" or the "Target" and try to come into this new model with a blank slate. The Sporting Event model focuses on education that gives only the information that is needed and that can be easily understood within a "framework" that can be easily remembered so that you can make the best decisions possible no matter where you are. There are only two major food groups in this model, Carbohydrates and Proteins, because all the principles in Performance Nutrition are based on the way the body needs and responds to these two nutrients. There are two main components and one minor component within each major food group. CARBOHYDRATES are broken down into Fruits and Vegetables and Grains and Sweets with the minor component being Beans and Peas, and PROTEINS are broken down into

Poultry, Fish and Meats and Dairy and Eggs with the minor component being Nuts and Seeds.

Carbohydrate:

For peak athletic performance, it is crucial to feed your body both before and after strenuous exercise. The most important macronutrient in an athlete’s diet is carbohydrate. Carbohydrate is the most efficient fuel source because less oxygen is used by the body to create energy; therefore carbohydrate is very important to athletes as the duration of high-intensity activity increases.

•Consume a high carbohydrate meal 3-4 hours before activity

•A snack may be needed 1-2 hours before activity; carbohydrate will be digested the fastest

•Consume 30-60 grams carbohydrate each hour during endurance events lasting over 1 hour

• Ensure a high carbohydrate recovery snack within 30 minutes post activity

• Consume carbohydrate-rich foods amounting to 50-100 grams within 2 hours post activity 6 gm carbohydrate: Baseball, Softball,

Golf, Sailing, Thrower (track), Football (K, P) 7-8 gm carbohydrate: Volleyball, Sprinter on Track, Football (QB, DE, DL, QB,

OL, TE, LB) 8-9 gm carbohydrate: Crew, Football (DB, RB, WR, SLOT, LB, TE), Lacrosse, Soccer, Swimming, Field Hockey

9-10 gm carbohydrate: Tennis, Basketball, Middle Distance Runner 10-12 gm Carbohydrate: Cross Country Runner

During the off-season athletes need approximately 50-65 grams less carbohydrate daily Good Sources of Carbohydrate

Carb (grams)

1 Bagel 65, 1 c. Pasta or Rice 43, 1 English Muffin 38, 1 Pancake 27, 1 c. Raisin Bran 41, 3⁄4 c. Granola 38, 1 Belgium Waffle 58, 1 Medium Banana 29, 1 slice Wheat Bread 18, 12 in. Tortilla 47, 12 oz. Fruit Juice 42, 12 oz. Sports Drink 23, 1 Medium Apple 22, 1 c. Oatmeal 28, 1 Small Baked Potato 23, 1⁄2 c. Corn 17, 1⁄2 c. Peas 13, 1⁄4 c. Dried Fruit 30, 1 c. Flavored Yogurt 45.

Make sure you get enough carbohydrate throughout the day! To calculate:

1) Body weight in pounds = Body weight 2.2 in kg

2) Body weight in kg x gm required for sport = gm CHO required each day

Fluid:

Fluid is the most important nutrition consideration for any athlete. Inadequate hydration can lead to impaired athletic performance and muscle cramping. Athletes exercising in warm, humid environments need to pay even more attention to fluid intake. Athletes should not wait until they feel thirsty to consume fluids. Use sports drinks or juice to replace carbohydrate, fluid and electrolytes during activity. Drink 100% fruit juice for more carbohydrate and electrolytes instead of sports drinks.

Fluid recommendations on practice & game days:

•16-24 oz fluid, 2-3 hours before activity

•5-10 oz fluid, 30 minutes before activity

•5-10 oz fluid every 15 minutes during activity

•At least 20 oz fluid post activity for every pound of water weight lost

Protein:

The body will use protein as an energy source if insufficient calories and carbohydrate are consumed. During endurance events the body will use some protein as fuel (2%-6% of total energy), therefore activities with longer duration will require the athlete to consume more

protein. Remember, before endurance events protein-rich foods take longer to digest and may increase the need to urinate; therefore carbohydrate is the preferred snack pre-activity.

Animal sources such as meat, poultry, eggs, fish, milk, and cheese provide all of the essential amino acids (complete protein). Vegetarian and vegan athletes should consume a whole grain and legume combination daily to obtain a complete protein. Consuming a diet with greater than 2 gm protein/kg body weight, the body will not be able to use and will excrete excess.

• Consume 0.1 gm/kg complete protein source immediately before and after strength training

• Consume a recovery meal with 0.1 gm/kg 1-2 hours post strength training 1.3–1.4 gm Protein: Golf, Sailing

1.5-1.6 gm Protein: Baseball, Softball, Volleyball, Middle Distance Runner, Football (K, P) 1.6-1.7 gm Protein:

Football (DB, RB, WR, SLOT, LB, TE), Crew, Lacrosse, Soccer, Swimming, Field Hockey, Tennis, Basketball, Cross Country Runner, Sprinter on Track 1.7-1.8 gm Protein: Thrower, Football (QB, DE, DL, OL, TE, LB)

Sources of Protein (grams)

4 oz. Chicken 25, 3 cubes Tofu 8, 3 oz. Shrimp 18, 3 oz. Fish 18, 3 oz. Beef 19, 2 oz. Turkey 9, 2 oz. Roast Beef 14, 2 tbsp. Peanut Butter 7, 1⁄2 c. Kidney Beans 7, 2 oz. Deli Ham 7, 4 oz. Pork Chop 28, 1 Sausage Link 3, 1 Egg 6, 8 oz. Milk 9, 8 oz. Soy Milk 7, 4 oz. Salmon 20, 4 oz. Tuna Steak 34

Find your protein needs, calculate:

1) Body weight in pounds = Body weight

2.2 in kg

2) Body weight in kg x gm required for

sport = gm protein required each day.

Fat:

It is important athletes consume a diet with fat, especially healthy fats from fish and plant oils. These healthy fats contain omega 3 and omega 6 fatty acids, which aid numerous physiological processes such as blood pressure, blood flow regulation, blood clotting, inflammation and bronchiole air flow. Foods high in Fat (fried food, peanut butter, burgers) stay the longest in the stomach and may feel heavy & uncomfortable. Athletes should try to consume higher fat foods 3-4 hours before intense practices or games. Athletes need to consume at least 15% of calories from fat, but ideally fat intake should be between 20-35% of total calories with less than 10% from saturated fat.

Healthy Sources of Fat (grams)

2 tbsp. Guacamole 4.5, 1⁄4 cup Olives 4, 1 tbsp. Salad Oil 14, 1 pkg. Promise Spread 2, 2 tbsp. Peanut Butter 15. 4 oz. Salmon 10, 1 tbsp. Sunflower Seeds 5, 1 tbsp. Mayonnaise 11

SPORTS NUTRITION

In order to maintain or gain weight as an athlete, it is important to consume at least 5 to 6 meals throughout the day. It is often difficult to consume all meals in the dining hall; therefore a large snack may take the place of a meal. The snacks listed below are easy to transport and can be eaten on-the-go. Many of these snacks may be bought on-campus. Discuss with a coach or registered dietitian your caloric requirement for each snack.

Fruits

Food Item Serving Size Calories

Banana 1 medium 110, Apple 1 medium 80, Orange 1 medium 65, Pear 1 medium 100, Dried Fruit Handful 100

Drinks

Food Item Serving Size Calories

Powerade 8 ounces 80, Apple Juice 8 ounces 120, Orange Juice 8 ounces 120, Juice Box 1 box 100, Sweetened Ice Tea 8 ounces 85, Skim Milk 8 ounces 80, Chocolate Milk 8 ounces 220

Snack Foods

Food Item Serving Size Calories

Peanut Butter Crackers 6 crackers 210, Chewy Granola Bar 1 bar 120, Trail Mix Handful 200, Peanut Butter 1 Tbsp. 95, Nature Valley Granola Bar 2 bars 180, Luna Bar 1 bar 180, Mixed Nuts Handful 170, Pretzels 7 small pretzels 110, Triscuit Crackers 6 crackers 120, Fig Newtons 4 cookies 200, Flavored Yogurt 1 cup 150, 1⁄2 Bagel 1⁄2 bagel 175, String Cheese 1 each 75, Granola 1⁄2 cup

Nutrition and sleep are two vital factors in training and performing at the high level possible for each athlete, it's important for a promising athlete to develop a strong habit of being consistent with their nutrition. As you have read the University of Pittsburgh did a great job in explaining the components of nutrition along with providing time tables, food options and appropriate amounts that should be consumed to maximize the potential of the individual. Follow the advice from above, along with being committed to your training program and you will maximize your potential as an athlete, without one of the two factors you will only being performing at small percentage of your overall potential.