SPORTS NUTRITION AND SUPPLEMENTS

by:

SYNERGY SPORTS NUTRITION
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What are the keys to success???

- Training
- Mindset
- Education
- Evaluation
- Recovery
- Movement patterns
- Nutrition
- Supplements
NUTRITION
Nutrition can make a good athlete great, or a great athlete good.
Eating Practice Every Day

- Eating the right foods helps you maintain desirable body weight, stay physically fit, and establish optimum nerve-muscle reflexes.
- Good nutrition must be a key part of your training program if you are to succeed.
- One of the least-recognized nutrition problems of the young athlete is simply not eating enough.
- Another problem of the young athlete is not eating the right kinds of food.
- Eating a balanced diet that has the proper amount of carbohydrates, fats, and protein.
Fats

+ Eat medium amounts of fat
+ Necessary to make hormones and keep fat-burning enzymes working
+ Examples:
  - Poultry, eggs, dairy (cottage cheese, yogurt, milk), lean red meat, fish, protein powders
  - Almonds, cashews, sunflower seeds
  - Fruit and vegetables (e.g., leafy greens) contain essential fatty acids (e.g., alpha-linolenic acid)
  - Avoid fried foods
Eat about 0.5 - 1 grams of protein per pound of ideal body weight

Examples:

- fish, poultry, dairy, lean meat, protein powder (Whey)

Tip:

- Eat protein in every meal equal to the size of your fist. That’s about 6 ounces or about 25 grams of protein.
CARBOHYDRATES

- **Eat about 2-2.5 grams of carbohydrates per pound of body weight**

- **Examples of Lean Carb’s:**
  - Yams, brown rice, shredded wheat,
  - Vegetables: broccoli, asparagus, corn, spinach
  - Fruit: grapefruit, blueberries, oranges

- **Avoid:**
  - Sugar, donuts, pastries, jelly, jam, candy bars, soft drinks,
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Eat about **15-20 calories per pound of body weight**.
PRE-GAME MEAL

+ **Allow Enough Time For Digestion.** Eat At least 3hrs Before An Event
+ **Choose a meal high in starch.** Starch is easy to digest and helps steady the levels of blood sugar
+ **Consume moderate amounts of protein.** Protein takes longer to digest than starch. A high-protein meals may lead to increase urine production, which may add to dehydration
+ **Limit fats and oils.** Take too long to digest
+ **Restrict sugary foods.** Sweets can cause rapid energy swings in blood sugar levels and result in low blood sugar and less energy
+ **Avoid foods and drinks that contain caffeine.** Caffeine can stimulate the body to increase urine output, which can lead to dehydration
<table>
<thead>
<tr>
<th>BREAKFAST</th>
<th>LUNCH</th>
<th>DINNER</th>
<th>SNACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>whole grain waffles w/syrup</td>
<td>bean burrito</td>
<td>Spaghetti with tomato sauce &amp; sliced vegetables</td>
<td>Whole grain bagel with peanut butter</td>
</tr>
<tr>
<td>handful of walnuts</td>
<td>*baked chips and salsa</td>
<td>Spinach salad</td>
<td>*Grapes</td>
</tr>
<tr>
<td>*Low fat milk</td>
<td>*100% fruit juice</td>
<td>*Low fat Milk</td>
<td>*Yogurt</td>
</tr>
<tr>
<td>Granola cereal with banana</td>
<td>Grilled chicken sandwich</td>
<td>Vegetarian Pizza</td>
<td>Raisins</td>
</tr>
<tr>
<td>whole wheat toast</td>
<td>*Baked potato w/veggies</td>
<td>*Tossed Green Salad w/whole grain roll</td>
<td>*Sliced turkey on whole grain crackers</td>
</tr>
<tr>
<td>Orange juice</td>
<td>*Fruit Cup</td>
<td>*Apple Crisp</td>
<td>*Gatorade</td>
</tr>
<tr>
<td>*Granola cereal with banana</td>
<td>Grilled chicken sandwich</td>
<td>Chili with beans and rice</td>
<td>*Raisins</td>
</tr>
<tr>
<td>whole wheat toast</td>
<td>*Baked potato w/veggies</td>
<td>*100% fruit juice</td>
<td>*Peanuts</td>
</tr>
<tr>
<td>Orange juice</td>
<td>*Fruit Cup</td>
<td>*Mixed berries</td>
<td>*Popcorn</td>
</tr>
<tr>
<td>Oatmeal and Sliced Fruit</td>
<td>Turkey Sub on whole grain bread</td>
<td>**Grilled Fish filet</td>
<td>*Cottage Cheese</td>
</tr>
<tr>
<td>*Low fat Milk</td>
<td>*Baked chips</td>
<td>with grilled chicken</td>
<td>*Fruit Smoothie</td>
</tr>
<tr>
<td>Canadian Bacon</td>
<td>*Apple</td>
<td>*Large green salad with vinaigrette</td>
<td>*Low fat Frozen Yogurt</td>
</tr>
<tr>
<td>Whole grain English muffin</td>
<td>Rice with vegetables and black beans</td>
<td>**Steamed veggies</td>
<td></td>
</tr>
<tr>
<td>with peanut butter</td>
<td>Garden Veggie Salad with grilled chicken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juice or Water</td>
<td>*Fruit Cup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banana</td>
<td></td>
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</tr>
</tbody>
</table>

**Note:** The table lists various meal options for breakfast, lunch, dinner, and snacks.
When deciding to eat fast food

× **Stay away from the fryer**
  + (Fried chicken, French fries, etc) Choose a side salad or baked potato as your side

× **Go Grilled**
  + Grilled chicken is a healthier option than a burger

× **Remove the skin**
  + If there is skin on your chicken or turkey, Take it Off

× **Hold the mayo**

× **Skip the soda**
  + Go for water
+ **Wendy’s Garden Sensation Salads with a low-fat dressing**
+ **Grilled Chicken Sandwich and a Side Salad with a low-fat dressing**
+ **Large Chili with a Side Salad with low-fat dressing**
+ **Small Chili and a Baked Potato with Steamed Broccoli**
+ **If you must eat a cheeseburger, choose a single with cheese — NO MAYO!**
+ (HOLD THE SOUR CREAM; LIGHT ON THE CHEESE AND GUACAMOLE)
+ BAJA ENSALADA WITH SALSA VERDE DRESSING
+ BARE BURRITO WITH HALF THE RICE
+ MAHI MAHI ENSALADA
+ BEAN AND CHEESE BURRITO
+ BEAN AND CHEESE BURRITO ADD GRILLED CHICKEN
+ 2 CHICKEN TACO CHILITOS
+ Choose a thin crust Veggie pizza
+ Thin crust Hawaiian pizza
+ Thin crust cheese
+ Stay away from ordering breadsticks. Order a salad with low-fat dressing instead!
HYDRATION
**HYDRATION**

**IMPORTANT HYDRATION FACTS**
- Every 1 lb of weight you lose = 16 oz of sweat
- Every 1% loss of hydration (total weight) results in a 6% loss in 1 rep max power
- During a 60-minute workout you can sweat out more than a quart of water
- You should drink 7 to 10 oz of fluid every 10 to 20 minutes during exercise to rehydrate
EFFECTS OF ALCOHOL ON ATHLETES

- POISON TO THE LIVER
- DRINKING ALCOHOL WILL:
  - Increase your risk of dehydration as alcohol has a diuretic effect, in other words it increases urine output
  - Give you problems with body heat regulation - particularly important for endurance athletes
  - Impairs ATP production (needed for muscle energy)
  - Reduce your blood sugar levels and muscle glycogen (via an insulin reaction) so your energy levels are lowered; this can be a problem with longer periods of exercise
  - Impair your reaction times, co-ordination and balance
  - Reduce your endurance, strength and speed
  - Increase your risk of injury
  - Interferes with the absorption of key metabolic nutrients such as thiamin (vitamin B1), vitamin B12, folic acid, and zinc.
SUPPLEMENTS
MULTIVITAMINS

- **Essential Vitamins, Minerals & Nutrients**
- **Obtain vitamins & nutrients not found in diet**
  - CoQ10: Vital for energy and power
  - Grape Seed extract 95%: Helps reduce stress
  - Gingko Biloba: For improved memory
  - N-Acetyl Cysteine: Enhance immune function
  - Zinc and B-6: Build muscle
  - Calcium & Magnesium: Build strong bones
  - Colostrum: Enhanced immune function
  - Bromelain & Papain: Digestive enzymes, prevent upset stomach
  - Spirulina: Superfood & good source of trace minerals
BRANCHED CHAIN AMINO ACIDS (BCAA)

- Metabolized not in the liver but in muscle
- Faster recovery time and growth state
- Reduce muscle damage
- Can increase fat loss
  - Glutamine
  - Alanine
  - Leucine
  - Iso-leucine
  - Valine
  - Aspartate
CREATINE

**What is it?**
- **Natural Substance made by the liver, kidneys & pancreas**
- Also found in meat and fish
- The average body has ~120 grams of creatine
- Stored primarily in muscle

**Why is it important?**
- Important component in the body’s production of energy
- Essential to short-term, high intensity exercise (anaerobic)
What are the advantages of supplementation?

- Can increase energy
- Can enhance muscle size and strength
- Can increase power output
- Can increase muscular endurance
- Can increase muscle cell volume

What are the risks?

- We do not know the long-term risks
- No studies showing at what age it is safe to use
- Dehydration
  - Muscle cramps, pulls, and tears
- Damage to the kidneys
  - Creatine gets converted to creatinine
**Whey Protein**

- Excellent source of all the essential amino acids
- Contains highest concentration of BCAA’s
- Eat about 0.5 - 1 grams of protein per pound of ideal body weight

![Protein Chart](image)
These are good fats

Body need’s the good fats to:

- to build muscle
- make hormones
- improve brain development and attention
- improve mood
- improve healing
- cushion joints
- enhance good cholesterol
STEROIDS

STAY AWAY FROM AT ALL COST

+ Male pattern baldness, acne, testicular cancer, liver tumors
+ “Roid Rage” or violent, aggressive behavior
+ A syndrome called “Acromegaly” where the skull gets larger, the cheek and jaw begin to protrude, one’s hands might become broad with fat, stumpy fingers, and the skin of the face become coarse
+ Ligaments and tendons tear easier from the extra strain placed on them from larger muscles
+ Natural testosterone production decreases
AND FINALLY......
RULES TO LIVE BY

1. **Eat breakfast everyday**
   - Jump starts energy levels and metabolism

2. **Eat Carb’s from fruits, veggies, and whole grains** (whole wheat bread, brown rice, whole wheat pasta)
   - More stable energy than chips, soda, white bread, candy

3. **Eat Smaller Portions A Day**
   - Five to eight meals/day
   - Protein, Carbs, Healthy Fats every 3 hrs
RULES TO LIVE BY

4. **Hydration**
   - Dehydration = Decreased Performance
   - Drink $\frac{1}{2}$ your body weight in ounces of water/day

5. **Pack your lunch**

6. **Supplements: Multivitamins, BCAA’s, etc…..**

7. **Rest**
REFERENCES

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+ Jim Stoppani, PhD
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THANK YOU BADGERS