

Come Back Stronger Webinar Series

November 18th, 2020





American Dairy Association North East



Sports Nutrition Experts

2020 Sports Nutrition Advisory Panel























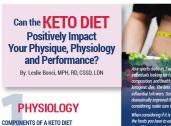




ADANE Free Resources







The goal of the ketogenic diet is to put your body into a state of ketosis where the muscle can use fat as the primary fuel source for exercise. To do this, the fat content of the diet is high, protein content is moderate (0.5-0.9 grams of protein per pound body weight per day) and carb intake is low, around 50 grams a day.

FOUIPMENT

Just as you have equipment for your sport, you need to be equipped to properly follow a keto diet. To make sure you are following the ketogenic diet correctly, you'll need to monitor your ketone levels. A finger prick that measures the ketones in your blood is much more accurate than testing your urine, but it can be costly. You need a blood ketone meter that will show you

WHAT YOU MAY NOTICE

Adapting to the diet can take some time. It typically takes a week to adjust. You may feel fatigued, or even "fluish" early on. This is due to the rapid excretion of sodium and fluids, from the body as you minimize carbohydrate intake. If you are a heavy or salty sweater you'll need to make sure that you drink enough fluids and consume enough sodium. Keto-friendly options include salting foods, broth, or adding soy sauce. You may have to ingest 3000-5000 milligrams of sodium per day, as well as additional potassium. Since potassium is found primarily in fruits and vegetables that are restricted on the keto diet, getting enough can be challenging. Magnesium and zinc needs are also higher



IMPACT ON APPETITE

After the period of adaptation, you may feel less hungry throughout the day. Area use period or adaptation, you may nee lees a intuly gain outsignout the day. For someone who is sedentary that may be fine, but a reduction in appetite may not be a good thing. If you train many hours a day and don't eat enough, you could end up in energy deficit, and that can negatively impact health and athletic performance.

IMPACT ON GUT HEALTH

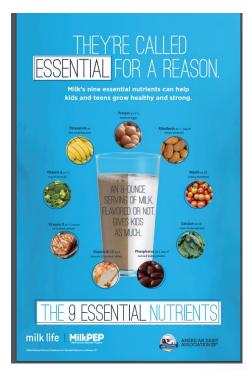
Some keto-advocates note that their digestive symptoms improve on a keto diet. While this may be reported, there is concern that inadequate intake of carbohydrates and fiber could be more harmful than helpful to the out.

IMPACT ON BONE HEALTH

IMPACT ON BONE HEALTH
Active individuals need to provide their supporting structure the nutrients it needs to stay strong. That means getting enough calcium and vitamin D daily. Full fat dairy fits into a keto plan and provides the calcium that is necessary to support bone health. Cheese and Greek yogurt are also low in carts, making them good options to get bone-supporting nutrients each day when following

IMPACT ON INFLAMMATION

Some studies have shown decreased markers on inflammation when following





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NUTRITION RECOMMENDATIONS FOR STRENGTH TRAINING IN THE HIGH SCHOOL ATHLETE

SUE A. JAMES, MS, RDN, LDN
PINNACLE HEALTH & WELLNESS

POLLING QUESTION #1

NUTRITION

"If you don't show up for meals, you might as well not show up for a workout or game."



GROWTH & DEVELOPMENT

- Increased calorie and protein need for growth & development
- Significant strength gains can occur once the body is producing enough hormones
- Tanner Stages identify growth & development stages
- Strength training is affected by hormones and body composition changes

MUSCLE COMPOSITION

Body is 60-70% Water

Muscle Fiber~ Water - 75%

~ Protein – 20%

~ Sodium and other ions – 5%





YOUNG ATHLETES & EXERCISE

- Not at appropriate Tanner Stage
 - Plyometrics
- Exercise Bands
- Flexibility & Conditioning
- Sports specific activities
- Build strong bones with exercise if not at Tanner stage to add lean muscle

MEAL PLANNING TO SUPPORT STRENGTH TRAINING

AN OVERVIEW

NUTRITION PLANNING

- Maintaining body weight for optimal power, performance, and recovery

Loss of muscle mass

Decreased bone density

Risk of fatigue, injury, or illness

Longer recovery time

Compromises performance

POLLING QUESTION #1

CARBOHYDRATES

Healthy Sources

Whole grains, pasta, breads, rice, beans, vegetables, fruit

Nutritional Benefits

Primary source of energy, vitamins, minerals and fiber

Athletic Performance Benefit

Energy source, muscle fuel for exercise/practice







MUSCLE FUEL= HEALTHY GRAINS

Cereal-Raisin Bran, Oatmeal
Whole Grain Bagels/Bread
Sweet Potatoes, Potatoes w/skin
Corn/Peas/Lima Beans
Rice (brown, white)
Noodles (wheat)
Tortillas



PROTEIN

Healthy Sources

Fish, poultry, lean red meat, eggs, beans, dairy foods

Nutritional Benefits

Provides amino acids, the building blocks of protein, iron, B-12, folic acid

Athletic Performance Benefit

Assists in the repair and strength building of muscle tissue Works with carbohydrates to enhance recovery after exercise







PLANT BASED PROTEINS

Food Item	Serving Size	Protein (g)	Carbohydrates (g)	
Lentils	1 cup	18	40	
Edamame	1 cup	17	20	
Black Beans	1 cup	15	41	
Chickpeas	1 cup	15	45	
Tofu	½ cup	6	3	
Quinoa	1 cup	8	40	
Brown Rice	1 cup	5	45	
Oatmeal	1 cup	6	43	
Wheat Pasta	1 cup	8	38	
Green Peas	1 cup	9	23	
Spinach	1 cup	5	7	

FATS

Healthy Sources

Olive oil, canola oil, avocado, nuts, nut butter, sunflower seeds

Nutritional Benefits

Provide fat soluble vitamins (A, D, E, K), omega 3 fatty acids,

Athletic Performance Benefit

Fuel source for low intensity exercise and long duration exercises







SUPPLEMENTS

Supplement Facts Label

Supplement Facts

Serving Size 1 Tablet

	Amount Per Serving	% Daily Value
Vitamin A (as retiry) acetate and 50% as beta-carotene)	5000 IU	100%
Vitamin C (as ascorbic acid)	60 mg	100%
Vitamin D (as cholecalciferol)	400 IU	100%
Vitamin E (as di-alpha tocopheryl acetate)	30 IU	100%
Thiamin (as thiamin mononitrate)	1.5 mg	100%
Riboflavin	17 mg	100%
Niacin (as niacinamide)	20 mg	100%
Vitamin B ₆ (as pyridoxine hydrochloride)	2.0 mg	100%
Folate (as folic acid)	400 mgg	100%
Vitamin B ₁₂ (as cyanocobalamin)	6 mcg	100%
Biotin	30 mcg	10%
Pantothenic Acid (as calcium pantothenate)	10 mg	100%
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Other ingredients: Gelatin, lactose, magnesium stearate, microcrystalline cellulose, FD&C Yellow No. 6, propylene glycol, propylparaben, and sodium benzoate.

Nutrition Facts Label

Nutrition Facts

Serving Size 2 tbsp. (33 g) Servings Per Container 7

Amount Per Serving

Calories 20 Calories from Fat 10

% Daily Value*

Total Fat 1 g 2% Sodium 190 mg 8%

Total Carbohydrate 2g 1%

Protein 1g

Vitamin A 2% • Vitamin C 15%

Iron 10% • Vitamin B6 20%

Vitamin B12 4%

Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, sugars, and calcium.

* Percent Daily Values are based on a 2,000 calorie diet.



NSF Certified - purity of the products

SUPPLEMENTS

- Food First athletes generally don't require supplements
- MVI may be necessary dieting, skipping food groups or avoiding certain foods, injury, or traveling
- Protein Powders/Protein Smoothies 1/day
 Stomach upset (add carbohydrates)

SUPPLEMENTS

- Amino Acids
- BCAAs research not conclusive
- Leucine stimulates muscle protein synthesis
 - milk & dairy, chicken
- Vitamin D skeletal muscle tissue
 - Maintain optimum levels- immunity, increased aerobic capacity, optimize muscle growth, force and power production

CALCIUM & VITAMIN D

<u>Deficiency in Athletes</u>

Stress Fractures
Decreased Immunity

Skim or Low-Fat Milk *
Low Fat Yogurt/Greek Yogurt
Cottage Cheese

(3 servings a day)
*Lactose free or fortified soy milk

STRENGTH GAIN STRATEGIES

- Add ~500 calories a day
- Eat 3 meals and 1-2 snacks daily
- Increase portion sizes at meals
- Drink low-fat milk, chocolate milk, or 100% juice, with meals/snacks
- Choose nutrient dense snacks (pb&j sandwiches, trail mix, etc.,)
- Do not miss/skip meals

TIPS TO ADD CALORIES

- Choose hearty breads i.e. sub rolls, bagels, Kaiser rolls, etc.,
- Add dried fruits to cereals, nuts, yogurt
- Use oils (olive, canola) in cooking
- Add a spoonful of dry milk powder to potatoes, oatmeal, soups and smoothies (60-90 calories)
- Top potatoes with cottage cheese, low-fat Greek yogurt and salsa
- Eat nutrient dense cereals i.e. granola or muesli and top with raisins, Craisins, walnuts, Greek yogurt, etc.

HIGH CALORIE MEAL PLAN

• Breakfast - Eggs, Wheat Toast, Low-Fat Milk, Banana

Snack - Peanuts & Raisins (Snack size baggie)

Lunch - Ham & Cheese Sandwich, Pretzels, Apple, Low-Fat Milk

Snack - 6 Fig Bars, 100% Fruit Juice

• Dinner - Pasta w/Meat Sauce, Dinner Roll, Green Beans, Low-Fat Milk

Snack - PB&J Sandwich, Chocolate Milk

CARBS & PROTEIN



Breakfast



Oatmeal, Peanut Butter, Apple, Milk, Water

Egg White Omelet, Wheat Bagel w/Whipped Cream Cheese, Orange, Milk, Water

Scrambled Eggs, Wheat Toast w/Margarine, Melon, Milk, Water

CARBS & PROTEIN



Lunch or Dinner



Turkey Sandwich w/ Cheese, Apple, Carrots, Milk, Water

Black Bean Burger on a Roll, Orange, Tomato Soup, Milk, Water

Baked Chicken, Baked Sweet Potato, Green Beans, Fresh Pineapple, Milk, Water

Fish Tacos w/Salsa, Rice& Beans, Broccoli, Milk, Water

TRAVEL SNACKS & BEVERAGES

- Pack & Carry:
 - Water and Extra Water
 - Milk, Chocolate Milk, Sports Drink
 - Peanut Butter Cups, Tuna
 - Bread, Bagels, Tortillas
 - Yogurt, Greek Yogurt
 - Apples, Oranges, Bananas, Peach Cups
 - Nature Valley Granola Bars, Clif Bars, Power Bars, Bonk Breaker Bars
 - Pb & J Sandwiches, Turkey Sandwiches, Ham Sandwiches
 - Trail Mix, Peanuts, Sunflower Seeds
 - *spoons, knives, forks, Insulated bags

POWER OATMEAL RECIPE

Oatmeal (1-1/2 cups cooked)

Add:

Whey Protein Powder (1 scoop)
Raisins (2 tablespoons)
Walnuts (1 tablespoon)
Peanut Butter (1 tablespoon)

(~715 Calories)

STRENGTH GAIN CHALLENGES

- Schedules and over scheduled young athletes
- No Time to Eat
- "Forget"
- Poor planning meals/snacks not purchased
- Financial/budget constraints







SPORTS NUTRITION GAME PLAN

- Plan meals and snacks.
- Start games and practices fully hydrated and fueled.
- Refuel during exercise/games as necessary.
- Do not miss or skip meals or snacks.
- Weigh weekly to monitor weight changes.









Discussion/Questions

Thank you!



Reminders

- Post-webinar polling questions
- •Raffle Prize Winners

- Post Webinar E-Blast Coming Soon! Includes:
- ✓ Presentation Slides
- ✓On-Demand Webinar Link
- ✓ Handout
- ✓ Resources



Thank you!