

Protein 101

Why Protein is Important

Protein was named after a Greek word *proteios*, meaning “of prime importance.” It is undeniably *the most important nutrient* in the bariatric diet. Protein is a part of every cell in your in body and these proteins are continually being broken down and replenished. Since the body doesn’t store protein for later use, eating enough high quality protein is required, otherwise the body will suffer. When protein intake is insufficient, the body breaks down lean body mass to offset for poor nutrition intake. While loss of lean body mass is inevitable after weight loss surgery due to low calorie intake, you can minimize this by taking in sufficient high-quality protein daily.

Principle Roles of Protein in the Body

- **Protein assists in proper wound healing after bariatric surgery.**
 - It helps to build and repair body tissues including skin, muscle and major organs.
- **Protein helps your body burn fat instead of muscle for a healthier weight loss.**
 - After bariatric surgery, your calorie intake is reduced drastically.
 - Unfortunately, the human body tends to preserve fat stores while using lean muscle mass as energy before it taps into fat stores for energy.
 - When you take in sufficient protein every day, you will spare and preserve your muscle tissue, which forces your metabolism to utilize fat for its energy.
 - This is often referred to as "protein sparing."
- **Protein supports your metabolism so you lose weight faster.**
 - The more muscle you have on your body, the *higher your metabolism* and the more fat calories your body will burn, even while at rest.



- **Protein helps keep you fuller, longer.**
 - Clinical studies show that high-protein diets increase satiety and decrease hunger compared with high-fat or high-carbohydrate diets.
 - Right after surgery, the majority of patients will not be hungry and may have to be reminded to eat on a regular schedule.
 - Over time, hunger & appetite can return.
 - Building a habit of eating protein first will keep you full for longer periods of time, helping you resist the snacking/grazing temptation between meals.
- **Protein helps keep your hair, skin, and nails healthy.**
- **Protein helps form hormones, enzymes, and immune system antibodies to help your body function properly.**

Protein Goals

- Protein needs vary with each individual based on their age, sex, lean muscle mass, daily exercise, and overall health.
- Immediately after surgery the protein goal will range from 40 - 60 grams per day as you are adjusting to a small stomach and a new way of eating.
- Once you have transitioned to regular food, the goal is 60 - 80 grams of high quality protein daily.



Protein Shakes & Powders

- Protein shake and powders are heavily utilized in the immediate months post op to promote wound healing and minimize loss of lean muscle mass.
- Liquid protein supplements such as shakes and powders are the easiest to take in right after surgery. After the first 2-3 months you will incorporate traditional proteins and foods into your diet.
- Many patients continue to use protein shake as a convenient source of protein and nutrition.
- They are great for a quick and easy breakfast, snack, or as a backup plan when running late and have no time for a regular meal.

Liquid vs. Solid Proteins

- As you move into Stage 4 and beyond, you will incorporate more solid proteins into your diet.
- Seek out sources with more “staying power,” that will keep you fuller for longer periods of time. Liquid or soft forms, such as protein shakes, yogurt, or cottage cheese, may not keep you satiated the way a piece of chicken or eggs will.

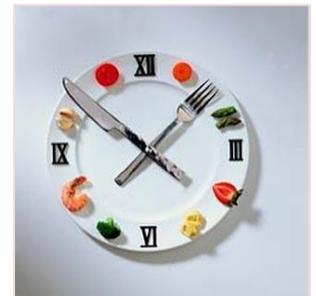
For example:

- 4 ½ ounces of chicken and a Premier protein shake both have 30 grams of protein.
 - Yet the chicken will keep you fuller for a longer period of time than the liquid protein shake.
- These liquid and softer proteins are still great sources of protein; simply notice if they continue to provide you with the fullness/satiety you want.
 - You may need to add protein powder or other foods such as fruit to help fill you up.



Spacing of Your Proteins

- Since the body cannot absorb more than about 30 grams at once, you will need to take in protein throughout the day, across multiple meals or healthy snacks.
- Foods that are high in protein should always be eaten first during meals, in case you feel full quickly and can't finish your meal.

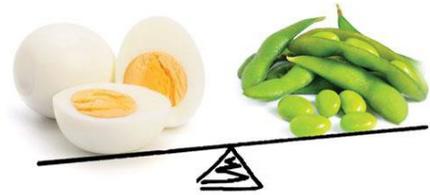


Proceed with Caution

- For many patients, beef, pork, lamb, and chicken breast can be particularly difficult to digest; though chicken thigh is generally well tolerated.
- You may want to wait to introduce these proteins until at least 3 months after surgery.
- Try new proteins on the weekend or evenings in case they have a negative result.
- Be sure to choose tender cuts and avoid the higher fat (therefore higher calorie) selections.

Complete vs. Incomplete Proteins

- Proteins and amino acids are used for almost every metabolic process in the body.
- Amino acids are the building blocks of protein.
- For optimal health, there are nine essential amino acids we need from dietary sources.
- However, not all proteins are alike. As a bariatric patient your primary goal is to get high quality protein sources in to meet your nutritional needs.
- Many people get confused as to what types of proteins they should eat and what is considered a good protein source.



Complete proteins

Animal-based proteins are known as complete proteins because they contain all nine of the essential amino acids your body needs to function properly.

- Beef
- Poultry
- Pork
- Seafood & Fish
- Eggs
- Dairy



Incomplete proteins

Plant-based proteins are considered to be incomplete proteins, as they lack one or more of the essential amino acids that your body needs.

- Beans (i.e. pinto, kidney, garbanzo)
- Lentils & split pea
- Nuts & seeds
- Grains & rice
- Vegetables



Complimentary proteins

Plant-based proteins provide some of the amino acids but they need to be combined with other foods (i.e. beans with rice, whole wheat toast with peanut butter) to make a complete protein; known as complimentary proteins.

- After bariatric surgery this is not a good option. Here's why: plant source proteins are naturally higher in carbohydrates or fat and calories while lower in protein than their animal protein counterparts.

For example:

Food	Amount	Calories	Protein grams
Beans & Rice	1 cup	360	12
Peanut butter	1 <u>level</u> Tbsp.	95	4
Nonfat refried beans	1 cup	180	12
Walnuts	1 cup	840	20
Chicken	1 cup	230	30

- The bariatric diet is similar to a Paleo diet, consisting of mainly protein with complex carbohydrates coming from vegetables, fruits and legumes.
- Carbohydrates such as rice, breads, crackers, noodles, and cereal **need to be avoided.**
- These carbs are not well tolerated after surgery as they can swell up in your stomach and can cause pain and dumping syndrome.
- Also, the calories from these carbohydrates can add up quickly, push out protein rich foods, and for many patients, make it easy to slip back into old unhealthy grazing habits.
- Therefore food combining to create a complete protein is *not* the best option.
- Eat complex carbohydrates such as vegetables, fruits, and legumes to maximize nutrition and satiety.



Recommended



Avoid

Complex Carbs	Simple Carbs
	

Vegetarians

- Following a vegetarian diet is possible after bariatric surgery, though it does take more effort and usually is accompanied with a higher caloric intake.
- Plant-based proteins, other than soy, need to be combined with other sources to meet your nutritional needs and are naturally higher in carbohydrate and calories, and not always well tolerated.

Soy

- This legume is the exception to the plant-based protein rule.
- Soy contains all the essential amino acids necessary for proper nutrition and comes in a wide variety of products, such as tofu, tempeh, and soybeans.
- Soybeans are 250 calories and 22 grams of protein per cup.
- See soy handout for more information.



Lupini beans



- These legumes are one the highest sources of plant proteins available, only second to soybeans, with most of the essential amino acids.
- These beans have a firm texture and are typically soaked in brine for a great salty snack.
- Lupini beans are 200 calories and 26 grams of protein per cup.
- See lupini handout for more information.

Foods Commonly Perceived as High Protein

- Legumes, nuts and seeds are often viewed as high quality proteins but they are comprised mainly of carbohydrate or fat and lacking certain amino acids to make a complete protein.
- While legumes contain a small amount of protein, it's best to view them as "bonus protein grams" and **not a main protein source**.
- Dairy products are an excellent source of protein when you select the low-fat or nonfat versions, such as cottage cheese and yogurt.
- Cheese is high in saturated fat, known to raise your "bad" cholesterol, so try using cheese in moderation to add flavor, rather than a main protein source.
- Eating legumes, nuts, seeds and dairy products can be a part of a healthy diet; providing flavor, texture, and a variety of nutrients with a few extra protein grams. Eat them mindfully.

Legumes:

- Legumes include beans, peas and lentils. They are an excellent source of complex carbohydrates and provide a wide range of essential nutrients including dietary fiber, minerals, vitamins, and some protein.
- **Nutritional composition: 27% protein, 70% carbohydrates, and 3% fat.**
- Average per cup: 240 calories per cup and 15 grams of protein.
- To meet your protein needs post op, you can use soy products, or add a protein powder or cottage cheese to nonfat refried beans, lentil or bean soups.
- Think of legumes as great complex carbs with “**bonus**” grams of protein.



Nuts & Seeds:

- Nuts and seeds are rich sources of energy/calories, heart-healthy fats, fiber, plant protein, vitamins & minerals, and phytochemicals.
- **Nutritional composition: 13% protein, 15% carbohydrate, 72% fat.**
- Average per cup: 800 calories and 25 grams of protein.
- While nuts and seeds are healthy for your heart, they can be detrimental to your weight as the calories can add quickly.
- Use nuts and seeds to enhance the flavor and texture to a meal. Eat sparingly.



Dairy:

- Cheese is a rich source of many nutrients such as calcium, phosphorus, zinc, vitamin A and vitamin B12.
- **Nutritional composition: 23% protein, 6 % carbohydrate, and 70% fat.**
- Average cheese per ounce is 100 calories, 7 grams protein & 6 grams saturated fat.
- Select the nonfat or low-fat dairy options.



Choosing Your Proteins



- The calories from the protein sources vary greatly, depending on the fat and carbohydrate content.
- When choosing protein, look for sources high in protein grams and low in calories to maximize nutrition and keep calories low for weight loss and maintenance.
- A guideline to make this selection easier is: a **minimum of 10 grams of protein for every 100 calories. The higher the protein grams and lower the calories, the better.**
- This formula will help you assess the quality of the protein source quickly to determine if it is a low, medium or high quality protein source.

For example:

Food	Amount	Calories	Protein Grams	Quality
Protein shake	1 shake	160	30	high
Chicken	1 ounce	50	9	high
Cottage cheese - 1%	1 cup	160	28	high
Halibut	1 ounce	40	8	high
String cheese	1 ounce	80	8	medium
Ribeye	1 ounce	80	8	medium
Chicken sausage	1 ounce	50	5	medium
Mozzarella cheese	1 ounce	85	6	medium-low
Almonds	1 ounce	165	6	low
Peanut butter	1 <u>level</u> tablespoon	95	4	low
Black beans	1 cup	220	15	low
Cheddar cheese	1 ounce	115	7	low

Daily Caloric Intake

- The 10% guideline also applies to your *daily calories*.
- For every 100 calories you eat, a minimum 10 grams should be coming from lean, high quality protein sources; up to the 60 grams/day.
- This guideline is designed to keep you focused in taking in enough protein each day while keeping your calories low to maximize your weight loss.
- Weight loss may slow down or stop once daily calories are 1000 or more per day depending on the individual.

For example:

Average Calories per Day	Average Protein Grams per Day	High protein to low calorie ratio?
520	62	yes
925	48	no
810	65	yes
600	31	no
1250	83	yes

Protein Needs

- Your protein needs will vary with each individual though the general goal is 60 - 80 grams of high quality protein daily.
- Protein needs to be spread out throughout the day with your meals and snack(s).
- Add up the protein: 15 - 20 grams per meal/snack x 4 meals = 60 to 80 grams of protein/day

For example:

Meal	Food	Amount	Calories	Protein Grams
Breakfast	1% cottage cheese and pineapple	¾ cup	120	21
		2 oz.	14	0
Lunch	Deli ham & LF string cheese wrapped in lettuce	3 oz.	90	15
		1 oz.	70	8
		1 oz.	1	0
Snack	PB2 and ½ apple	2 Tbsp.	45	5
		4 oz.	60	0
Dinner	Chicken thigh Broccoli	3 oz.	180	22
		½ cup	25	2
		Total	605	73

Tracking Protein Intake

Food records

- Keeping a food journal is essential to track your progress and ensure you are meeting your required protein needs.
- Records will also help you track which foods are best tolerated and which proteins to avoid.
- Food records include: the time, food, amount, calories, and protein grams, any intolerances, and hunger/fullness levels.
- It's also helpful to note your mood/feelings, location, and who you are eating with.
- Keeping a food journal allows you to review your progress and assess the best proteins, foods, and amounts to keep you fueled, full and satisfied.



Weigh and measure

- Weigh and measure your proteins on a kitchen scale often to ensure accuracy of your protein intake.
- Many patients overestimate their daily protein grams when they rely on “eye-balling” their protein quantity.
- Using a scale and keeping food records are critical tools for success.



If you find you are getting hungry quickly after a meal, there are several factors that may explain this:

- The carbs you are eating are quickly utilized burned up, leaving you hungrier faster.
- The protein source was in a liquid or soft form (i.e. protein shake or yogurt).
- You didn't eat enough protein grams at the meal (i.e. 1 oz chicken vs. 3 oz chicken)
- You didn't eat enough quantity of protein with complex carbs to last very long.
- You've gone too long between meals and need to refuel your body.

Tips:

- ✓ Eat proteins first and choose high quality protein sources.
- ✓ Have the majority of your carbohydrates come from vegetables and fruits.
- ✓ Eat at regular meal times, do not skip meals.
- ✓ Track the meals that provide you the most satiety and enjoyment.
- ✓ Continue to expand the variety of proteins and foods you eat to increase nutrition and enhance enjoyment.

Pureed Meal Ideas (Stage 3)

ALL FOODS need to be pureed to the consistency of applesauce; smooth with no chunks. Your stomach is still healing and solids foods can cause dumping syndrome or pain.

Start slowly, with about 1/4 - 1/3 cup of food. Listen to your body and stop when full. Gradually increase quantity as tolerated. Use herbs and spices to flavor the proteins. Remember to take dime-sized bites and sips to prevent eating too fast or too much.

Meat, Fish, Poultry

- Chicken thigh with taco seasoning
- Canned tuna mixed with cottage cheese and dill
- Shrimp with cocktail sauce
- Chicken thigh with PB2, cilantro, and coconut extract (Thai chicken)

Eggs, Cheese, Dairy

- Soft scrambled eggs with pico de gallo (liquid only)
- Laughing cow cheese with deli ham & mustard
- Nonfat plain Greek yogurt with mashed peaches (no skin)
- Cottage cheese blended with bleu cheese and chicken

Soups (with protein added)*

- Tomato soup with cottage cheese and basil
- Butternut squash soup with tofu and Creole seasoning
- Low fat mushroom soup with unflavored protein powder and Italian seasoning
- Fat free refried beans with cottage cheese



Fruits/Vegetables

- Mashed melons, pears, peaches, nectarines, bananas
- Mashed sweet potatoes, butternut squash, broccoli or cauliflower.

***Soups and legumes are primarily a carbohydrate source. Make sure to puree them with unflavored protein powder, cottage cheese, or tofu to decrease the grams of carbohydrates and ensure you are taking in protein.**

Cottage Cheese Recipes (Stage 3 and Beyond)

Blue cheese dip/dressing

- 1 pint nonfat or low fat (1%) cottage cheese
- 1 ½ oz. blue cheese
- 1-3 cloves of garlic- to taste
- Splash of Worcestershire sauce - to taste
- Salt & pepper – to taste
- Nonfat milk

Place all of ingredients in blender or food processor.
Add enough milk to your desired consistency.
It can be used as dip, sauce or dressing.



For ¼ cup*

65 calories

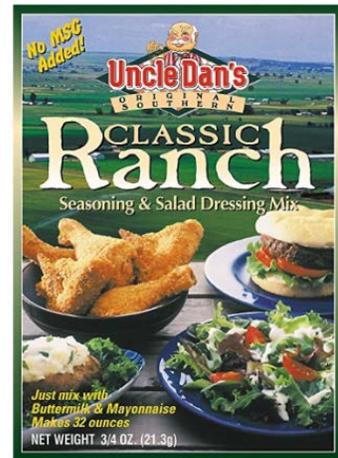
8 protein grams

*based on 1% fat cottage cheese

Ranch dip/dressing

- 1 pint nonfat or low fat (1%) cottage cheese
- 1 packet Uncle Dan's Ranch or Hidden Valley seasoning
- Nonfat milk

Place all of ingredients in blender or food processor.
Add enough milk to your desired consistency. It can be used as dip,
sauce or dressing.



For ¼ cup*

45 calories

7 protein grams

*based on 1% fat cottage cheese

* If using Hidden Valley seasoning packet it is 65 calories for ¼ cup.

Note: you could also substitute the cottage cheese with nonfat plain Greek yogurt, light ricotta cheese or tofu; though cottage cheese will provide the best calorie to protein ratio.

Protein Meal and Snack Ideas (Stage 5 and Beyond)

- To keep meals simple and your protein intake high, create a list of 2 - 4 menu ideas for each meal that you enjoy, are high protein, and well tolerated.
- This approach provides structure, standard items on your grocery list and enough variety to provide proper nutrition and optimum enjoyment.

Breakfast:

- Cottage cheese or yogurt with fruit
- Egg & veggie scramble
- Protein shake
- Egg bites - eggs, veggies, low-fat cheese and turkey bacon, ham or chicken sausage baked up in muffin tins for a quick and easy breakfast.
- Chicken sausage (Flavors: garlic herb, sweet Italian, Andouille, pesto, hot Italian, etc.)
- Veggie-loaded breakfast casserole: eggs, spinach, mushrooms, onion, bell peppers, cheese. Add a chicken sausage for extra flavor & protein.
- Ham, egg and cheese roll ups – with spinach and tomato.



Lunch:

- Deli meat (ham, chicken, turkey, or lean roast beef) wrapped around string cheese. Dip in gourmet mustard.
- Soups- a flavorful way to get in your protein with lots of vegetables (i.e. Chicken Fiesta soup, Indian Stew, Chunky Turkey Vegetable soup).
- Small green salad topped with shredded chicken, shrimp or hard-boiled egg.
- Leftovers from dinner of lean meat and veggies.
- Mini meatloaf – bake in a muffin tin for just-right-sized meals.
- Garlic parmesan chicken thighs.
- Beef & Broccoli Stir fry with Cauliflower Rice
- Buffalo chicken salad: chicken, Cajun hot sauce, baby spinach, cherry tomatoes, onions, cilantro cottage cheese ranch dressing.



Dinner:

- Chicken sausage & mushroom pizza bowls - with marinara, low fat mozzarella cheese and Italian seasoning blend.
- Ground turkey taco wraps - with pinto or black beans, low fat cheese, tomatoes, onion, cilantro and iceberg lettuce.
- Baked salmon with avocado salsa and broccoli.
- Grilled halibut with garlic cilantro sauce and asparagus.
- Stuffed bell peppers - lean ground turkey or beef, black beans, spices and topped with low-fat cheese and green onions.
- Meat & veggie spaghetti sauce over zucchini or spaghetti squash.
- Buffalo Chicken Zucchini Boats: chicken, Monterey Jack cheese, cottage cheese ranch dressing, zucchini, and hot sauce. Optional garnish: sliced red onion, fresh cilantro, avocado slices.
- Ground Beef Enchilada Zucchini Boats: ground beef, taco seasoning, onion, zucchini, enchilada sauce, cheese, & cilantro.



Dessert:

- High protein pudding: nonfat plain Greek yogurt, chocolate protein powder, stevia drops, milk. If you want the consistency of ice cream, freeze it for minimum of 1 hour.
- Low fat ricotta cheese whipped with stevia and fruit. Freeze for a minimum of one hour.
- Apple slices dipped in PB2.



Finding recipes

- There are many online resources to find new high protein recipes and ideas.
- Searching for bariatric friendly or Paleo recipes on bariatric support sites, Google, or Pinterest can be a great starting place.
- Remember that not all recipes labeled as bariatric-friendly will be appropriate for you to make or eat.
- Be sure you choose ones that are in alignment with your bariatric team's recommended dietary guidelines.

Protein Chart

This list of protein sources is based on average calories per ounce, cup, or level tablespoon.

Both calories and protein grams were rounded up or down for ease of use.

BEEF

Food	Calories per oz.	Protein grams
Bologna	90	3
Beef jerky	80	15
Beef Top Round	50	9
Brisket	90	7
Flank	55	8
Ground beef (93% lean)	40	6
(85% lean)	70	8
(80% lean)	70	7
Hot dog	90	3
Pastrami	40	6
Pot Roast	90	9
Prime Rib	70	5
Ribeye	70	7
Ribs	100	6
Roast Beef	50	8
Salami - soft	75	4
Salami - hard	110	6
Shank	60	10
Skirt steak	65	7
Summer Sausage	100	5
T-bone	50	7
Top Loin (NY Strip)	65	6



DAIRY - low fat options

Food	Calories per cup	Protein grams
Cottage cheese		
1%	160	28
2%	200	28
4%	220	26
Greek yogurt: NF, plain	135	25
Yogurt: NF, plain	120	14



DELI

Food	Calories per oz.	Protein grams
Bologna	90	3
Canadian bacon	30	5
Chicken	30	5
Corned Beef	30	5
Ham	30	5
Liverwurst	90	4
Pancetta	100	4
Pastrami	40	6
Pepperoni	150	6
Prosciutto	55	7
Roast beef	30	5
Salami	70	4
Turkey	30	5

FISH & SEAFOOD

Food	Calories per oz.	Protein grams
Ahi	30	7
Bass	35	6
Catfish	30	5
Clams	40	7
Cod	30	7
Crab	20	5
Halibut	40	8
Lobster	25	2
Mussels	50	7
Oysters	25	3
Salmon	45	6
Smoked salmon jerky	90	15
Scallops	30	7
Shrimp	30	6
Tilapia	35	7
Tuna fish (can or pouch)	35	7



POULTRY

Food	Calories per oz.	Protein grams
<i>Chicken</i>		
breast	50	9
drumstick	50	8
thigh	60	7
wing	60	9
ground	55	6
Chicken sausage	50	5
Egg (large)	70	6
Cornish game hen	40	11

POULTRY – continued

Food	Calories per oz.	Protein grams
<i>Turkey</i>		
breast	40	9
drumstick	45	8
thigh	50	5
wing	50	9
ground	65	6
turkey bacon	65	6
turkey jerky	100	19
Duck	55	6
Goose	65	8
Goose liver pate	130	3
Pheasant	70	9

PORK

Food	Calories per oz.	Protein grams
Bacon	150	11
Blood sausage	105	4
Bologna	70	4
Bratwurst	90	5
Canadian bacon	50	7
Chorizo	130	7
Ground pork	80	7
Ham steak	35	5
Pancetta	100	4
Pepperoni	150	6
Pork chops	55	9
Pork liverwurst	90	4
Pork loin	60	8
Pork roast	55	8
Pork ribs	75	8
Pork sausage – bulk, link or patty	100	6
Pork & beef salami	95	4
Prosciutto	55	7

SOY

Food	Calories per cup	Protein grams
soy beans - dry roasted	520	56
Soybeans- shelled	250	22
Tofu – firm	175	21
Tofu - soft	150	16
Tempeh	350	31



DAIRY & PLANT-BASED PROTEINS

Plant-based and higher fat dairy proteins are typically higher calorie and lower in protein.

Choose wisely.

CHEESE

Food	Calories per oz.	Protein grams
American	90	5
Asiago	100	6
Bleu	100	6
Cheddar	115	7
Chevre	60	4
Cream cheese - regular	100	2
Cream cheese - low fat	65	3
Cream cheese - fat free	25	4
Feta	75	4
Gouda	100	7
Havarti	110	7
Laughing Cow – regular	70	3
Laughing Cow – light	45	3
Mascarpone	125	2
Monterey Jack	100	7



CHEESE – continued

Food	Calories per oz.	Protein grams
Mozzarella - whole milk	85	6
Parmesan	120	11
Pepper Jack	100	7
Provolone	100	7
Ricotta - light	25	2
Ricotta - part skim	40	3
Ricotta - whole	50	3
Swiss	105	7

LEGUMES

Food	Calories per cup	Protein grams
<i>Beans</i>		
Adzuki	295	17
Black	220	15
Cannellini	180	14
Fava	180	14
Garbanzo	210	11
Great Northern	300	19
Lima	190	12
Lupini beans	200	26
Navy	295	20
Pinto	205	12
NF refried beans	260	18
Red kidney	220	16
<i>Peas</i>		
Black-eyed	185	11
Split peas	230	16
<i>Lentils</i>	230	18
<i>Soybeans</i>	250	22

NUTS & SEEDS

Food	Calories per cup	Protein grams
<i>Nuts</i>		
Almonds	825	30
Brazil	870	19
Cashew	905	27
Hazelnut	840	16
Macadamia	920	8
Peanuts	850	35
Pecans	800	12
Pine nuts	800	16
pistachios	680	24
walnuts	800	20
<i>Seeds</i>		
Chia	960	48
Flax	745	32
Hemp	905	53
Poppy	735	26
Pumpkin	680	36
Sesame	820	26
Sunflower	760	32



NUT BUTTERS

Food	Calories per level Tbsp.	Protein grams
Almond	100	4
Brazil	95	2
Cashew	100	2
Flax	95	2
Hazelnut	90	2
Hemp seed	90	5
Macadamia	90	0
PB2 (2Tbsp)	45	5
Peanut	95	4
Pecan	125	2
Pistachio	85	3
Pumpkin seed	75	3
Sesame seed	90	3
Soynut	95	4
Sunflower seed	90	3
Walnut	100	3



Yogurt

Yogurt is a very healthy protein option *depending* on the individual and type of yogurt you eat.

There are many yogurts with high protein and low sugar and there is just as many with high sugar and low protein. You will need to read the labels carefully to determine if the yogurt meets your nutritional needs.

- **Yogurt label reading guideline: for every 100 calories, a minimum of 10 grams of protein, and <7 grams of sugar.**
- Try buying plain, nonfat yogurts and adding sugar free syrups or protein powders to flavor them.

Recommended Yogurts

Yogurt	Calories	Protein	Sugar
Dannon Oikos Nonfat Plain Greek	80	15	6
Chobani Nonfat Greek	80	15	4
Stonyfield Organic Greek, Nonfat, Plain	80	15	6
Siggi's 0% Nonfat Plain	80	15	4
Fage Total 0% Plain Greek	100	18	7
Nancy's Nonfat Plain Greek	120	22	7
Carb Master (Kroeger) - average all flavors	80	12	3
Dannon Activia Greek Light Vanilla Nonfat	80	13	6
Yoplait Greek 100 Vanilla	100	13	6
Dannon Light & Fit Nonfat Greek - average all flavors	120	15	7
Dannon Oikos Triple Zero - average all flavors	120	15	7

Soy



- Soy is rich in vitamins, minerals, calcium, iron, fiber, phytochemicals, and protein.
- Studies have found soy can help prevent and improve some of today's top health issues such as heart disease, high blood pressure, osteoporosis, certain cancers; and menopausal symptoms like hot flashes, night sweats, and insomnia.
- Soy foods are popular with vegetarians and vegans who often rely on them for their main source of protein; as soy contains all of the essential amino acids.
- Soy is very versatile and can be eaten as whole beans (edamame) or processed as tofu, tempeh, soy yogurt, miso, soy milk and other soy-based products.

Product	Amount	Calories	Protein Grams
Soy beans: shelled	1 cup	250	22
Soy nuts: dry roasted	1 cup	520	56
Soy cheese	1 oz	70	7
Soy milk	1 cup	90	6
Soy powdered protein: unflavored	¼ cup	70	17
Soy yogurt	1 cup	140	6
Tempeh	1 oz	60	6
Tofu: firm	1 oz	30	3
soft	1 oz	20	2
silken	1 oz	15	1.5

Types of Tofu

- **Firm:** is dense and can be cubed and stir-fried, grilled, scrambled, pickled, smoked, baked, barbecued or served in soups. Firm tofu is higher in protein, fats and calcium than other types of tofu.
- **Soft:** is better suited for recipes in which tofu needs to be blended.
- **Silken:** has a creamy structure and is also used in blended dishes.

Lupini Beans

- Lupini beans are large, flat, round, yellowish seeds in the legume family, native to Italy.
- They are traditionally eaten as a pickled snack food, in the Mediterranean basin and Latin America.
- Lupini are commonly sold in jars; brined like pickles or olives.
- They have a thick outer skin that needs to be torn to get to the bean; though you can eat the skins too.
- Highly skilled lupini eaters learn to split the skin by rubbing the bean between forefinger and thumb; popping it directly into their mouth.
- They are a nutritious snack when you want something salty and “crunchy” to eat.

Lupini bean facts:

- One of the highest sources of plant proteins available after soybeans
- The bean skin consists mainly of cellulose (insoluble bran fiber)
- Rich in antioxidants and amino acids, especially arginine
- Have a low glycemic index; great for diabetics
- Easy to digest and high bioavailability
- High in vitamins, especially B complex, and minerals
- Low in fat, cholesterol, and is gluten free
- Probiotic food, promoting the growth and nurturing of “good” gut bacteria

Nutritional composition:

- 45% protein
- 34% carbohydrates
- 21% fat



Nutrition Facts	
Serving Size 1 cup	
Amount Per Serving	
Calories 197	Calories from Fat 40
% Daily Value*	
Total Fat 4.8g	7%
Saturated Fat 0.6g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 6.6mg	0%
Potassium 406.7mg	12%
Total Carbohydrate 16.4g	5%
Dietary Fiber 4.6g	19%
Sugars 0g	
Protein 25.8g	52%
Vitamin A 0%	Vitamin C 3%
Calcium 8%	Iron 11%
Thiamin 15%	Riboflavin 5%
Vitamin B6 1%	Niacin 4%
Magnesium 22%	Phosphorus 21%
Zinc 15%	Copper 19%
Pantothenic Acid 3%	

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie

Cooking Lupini Beans

These delicious beans are a healthy protein snack but they do require a bit of patience to prepare.

1. Pick over beans to remove any debris.
2. Put the beans in the pot of water and soak overnight for 24 hours. Be sure that the water covers the beans totally. After twelve hours, check on the beans to make certain they're completely immersed and add more water if required.
3. After the 24 hour period of soaking, drain the water and refill with fresh water covering the beans completely.
4. Bring the beans into a boil as well as simmer for 1 ½ hours. Add more water if needed.
5. Drain, rinse well, and cover with salted water (about one tablespoon per quart of water).
6. Allow them to cool and then refrigerate.
7. Repeat this process twice a day for 7 days or until the soaking brine is no longer bitter.
8. Store the beans in air-tight container within the fridge. They'll keep for about 6+ weeks.



Where to Buy

Dried: Amazon, Nuts.com

Prepared: Amazon, Walmart.com, Luckyvitamin.com