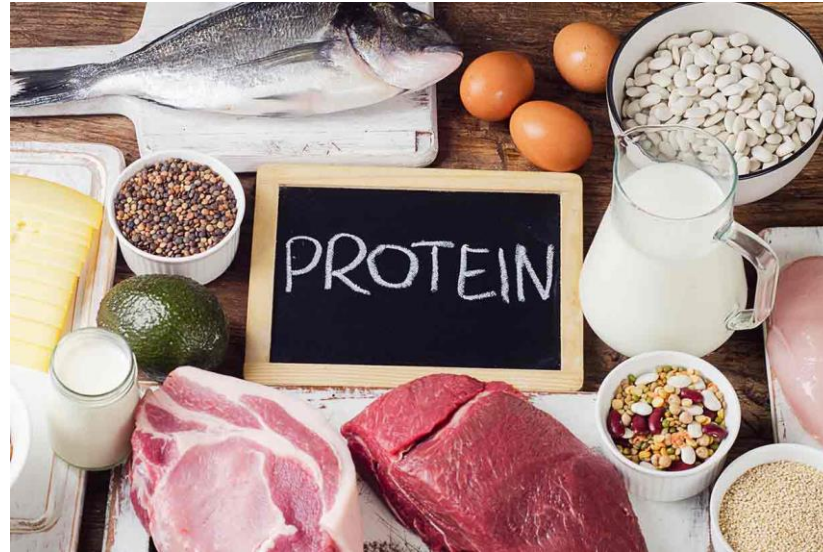


Power of Protein for After Surgery



 **Deaconess**
WEIGHT LOSS
SOLUTIONS

What is Protein?

Protein is:

- ▶ An essential nutrient
- ▶ Made up of 20 different amino acids which are described as building blocks
- ▶ Used to build things in our bodies such as muscle
- ▶ Part of antibodies which protect us from disease-causing bacteria and viruses
- ▶ Builds new tissues during healing



Protein's Role for General Good Health

Protein is a component that makes up:

- ▶ Muscle
- ▶ Blood
- ▶ Internal organs
- ▶ Skin
- ▶ Hair
- ▶ Nails
- ▶ Bones



Protein's Role in Weight Loss

- ▶ Promotes the feeling of fullness, which is helpful when trying to eat less
- ▶ Preserves muscle mass
 - ▶ For strength to do your daily tasks and activities
 - ▶ To help increase your metabolism, which means the calories you burn while at rest



Maintain Your Muscle Mass

- ▶ As we get older, we lose (decrease) our muscle mass
- ▶ Weight loss can also lead to muscle mass loss
- ▶ What does muscle get replaced by?
- ▶ -Answer: Fat!

The Breakdown of Calories

- ▶ For each pound of muscle you have, you burn about 6-10 calories per day
- ▶ For each pound of fat you have, you consume about 2-4 calories per day



Maintain Your Muscle Continued:

How to Maintain Muscle During Weight Loss?

- ▶ Become more active by using your muscles during strength-building exercises
- ▶ Include protein-rich foods into your daily meals and snacks



Essential Amino Acids

- ▶ 9 out of the 20 amino acids are called essential amino acids because our bodies cannot make them on their own, we must consume them from protein-rich foods
- ▶ A complete protein is referred to a food that contains all 9 essential amino acids

THE ESSENTIAL AMINO ACIDS (WHICH OUR BODIES CANNOT MAKE) :		
$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{C} \\ / \quad \backslash \\ \text{HN} \quad \text{CH} \\ \quad \\ \text{HC} \quad \text{NH}^+ \end{array} $ <p>Histidine</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{C} \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_2 \\ \quad \\ \text{CH}_2 \quad \text{CH}_2 \end{array} $ <p>Isoleucine</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{C} \\ / \quad \backslash \\ \text{H}_3\text{C} \quad \text{CH}_2 \end{array} $ <p>Leucine</p>
$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{NH}_2 \end{array} $ <p>Lysine</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{CH}_2 \\ \\ \text{S} \\ \\ \text{CH}_3 \end{array} $ <p>Methionine</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{C}_6\text{H}_5 \end{array} $ <p>Phenylalanine</p>
$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}-\text{CH}_3 \\ \\ \text{OH} \end{array} $ <p>Threonine</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{CH}_2 \\ \\ \text{C} \\ / \quad \backslash \\ \text{C}_8\text{H}_6\text{N} \end{array} $ <p>Tryptophan</p>	$ \begin{array}{c} \text{H} \quad \text{O} \\ \quad \\ \text{H}-\text{N}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{C} \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_2 \end{array} $ <p>Valine</p>
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Which Foods Contain Protein?

Anything that Comes from an
Animal Contains Protein:

- ▶ Meat: beef, pork, lamb, venison
- ▶ Poultry: chicken, turkey
- ▶ Fish and shellfish
- ▶ Eggs
- ▶ Dairy Foods: yogurt, cheese, cottage cheese, milk

- ▶ *All of the foods listed are examples of a complete protein because each of them contain all 9 essential amino acids



Which Foods Contain Protein? (Plant Edition)

Plant Sources of Protein

- ▶ Legumes: beans and lentils
- ▶ Nuts and nut butters
- ▶ Seeds
- ▶ Grains
- ▶ Soy foods: tofu, soy milk, edamame
- ▶ Some vegetables like peas, broccoli, and spinach
- ▶ *Although the above foods are mostly incomplete protein examples, they are still apart of a healthy diet. These foods consumed in combination in over a day make a complete protein.

- ▶ *Soy foods & (whole grains) like Quinoa, Buckwheat, and Amaranth are all plant sources of protein that are complete proteins



Protein Content of Foods

Examples of Protein Content of Foods: *grams = (g)

- ▶ 8 oz. of milk = 8 (g)
 - ▶ 6 oz. non-Greek yogurt = 5-6 (g)
 - ▶ 5.3 oz. Greek yogurt = 10-15 (g)
 - ▶ 1 oz. cheese = 7 (g)
 - ▶ 3 oz. lean beef, pork, poultry = 18-25 (g)
 - ▶ 3 oz. light tuna canned, packed in water = 16.5 (g)
 - ▶ 3 oz. salmon = 22 (g)
 - ▶ 1 large egg = 6 (g)
 - ▶ ½ cup canned kidney beans = 6.4 (g)
 - ▶ 1 cup quinoa = 8 (g)
 - ▶ 1 cup cooked broccoli = 3.7 (g)
- ▶ *3 oz. of cooked meat, fish, or poultry is about the size of a deck of cards
 - ▶ *Source: USDA Nutrient Database and Food Labels
 - ▶ *Amount of protein per Individual item may vary based on specific type or brand
 - ▶ *Protein content of meat, fish, and poultry are after cooking

Protein Goals for Weight Loss

- ▶ Typical Daily Protein Goals:
- ▶ Women: 60-75 grams per day
- ▶ Men: 80-100 grams per day
- ▶ *These goals are typical for weight loss, but can vary based on your individual nutrition needs
- ▶ Speak with a registered dietitian for the meal plan that best fits you!

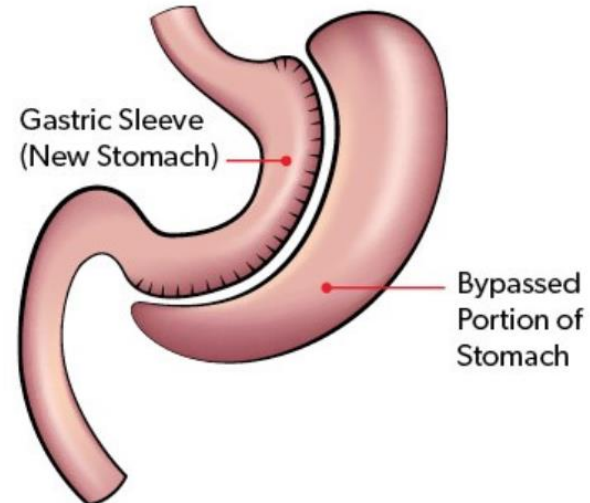
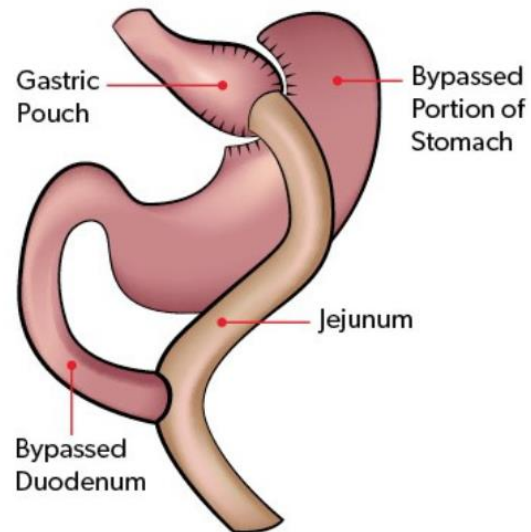


Meeting Protein Goals for Weight Loss

- ▶ Meal Planning Guidelines:
- ▶ Plan meals and snacks ahead of time to have the appropriate foods when needed
- ▶ Include a protein-rich food at each meal and snack time
- ▶ Along with protein, be sure to include vegetables, fruit and whole grains when planning meals and snacks for a balanced approach



Post Bariatric Surgery: Protein Focused Diet Needed for a Lifetime!



- ▶ Due to limited space in your new pouch/stomach, protein-rich foods will need to be a priority!

Meeting Protein Goals for Pre- and Post-Surgery

Protein Guide for Meals & Snacks

- ▶ 1. The body does not store protein and needs to be consumed daily
- ▶ 2. Best utilization of protein by the body is when protein is consumed throughout the day, and not just at 1-2 meals
- ▶ 3. After Surgery: eat your protein 1st to avoid filling up on other foods.

Sample of Dividing Protein

- ▶ Breakfast: 15-20 grams
- ▶ Snack: 5-10 grams
- ▶ Lunch: 15-20 grams
- ▶ Snack: 5-10 grams
- ▶ Dinner: 15-20 grams
- ▶ Snack: 5-10 grams
- ▶ *You may not want 3 snacks per day. Your meal plan should be tailored to your needs and preferences. This is just an example of how to spread your protein intake throughout the day.

Meeting Protein Needs Post-Surgery

Protein is the focus after bariatric surgery:

- ▶ Limited food volume related to the smaller stomach/pouch size
- ▶ Protein will fill you up sooner and stay in the pouch/stomach longer to help maintain satiety (the feeling of fullness)
- ▶ To help maintain muscle mass during rapid weight loss
- ▶ A protein supplement is helpful in achieving daily protein goals

Total food volume at a meal or snack immediately after bariatric surgery

- ▶ Approximately ½ cup or 4 oz. of food
- ▶ After gastric bypass or sleeve gastrectomy, remember: a full liquid diet will be followed
- ▶ A sample full liquid diet meal/snack is as follows: 4 oz. blended soup with added protein or a 4 oz. protein shake
- ▶ With this limited food volumes, it is important to focus on protein!
- ▶ Food volume will increase over time

Post-Surgery: Diet Phases for Healing

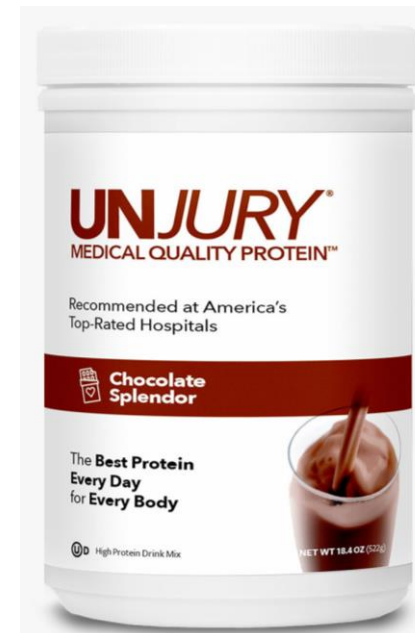
- ▶ After sleeve and gastric bypass surgery, a series of modified textured diets will be followed to promote healing and avoid food intolerances
 - ▶ Clear Liquid diet:
 - ▶ Starts approximately 6 hours after surgery
 - ▶ Full Liquid diet:
 - ▶ Starts day 1 after surgery through day 10
 - ▶ Pureed/Mashed Foods diet:
 - ▶ Starts day 11 after surgery for 1 month
 - ▶ Soft diet:
 - ▶ Starts 2 months after surgery for 1 month
 - ▶ Regular diet (Lifetime diet):
 - ▶ Starts month 3 after surgery and is the “lifetime diet”

Protein Supplement Guidelines

Protein Supplements Per Serving

- ▶ Recommendation:
 - ▶ 15-30 grams of protein
 - ▶ 5 grams or less of Total Sugar
 - ▶ 2 grams or less of Added Sugar

 - ▶ Check the ingredient list for the sources of protein
 - ▶ Sources of complete proteins:
 - ▶ Egg: Egg albumin
 - ▶ Milk: Milk Protein, milk protein concentrate, whey
 - ▶ Soy: Vegetable source of protein
- ▶ Unjury is just one example of a quality protein supplement that is appropriate to consume after surgery



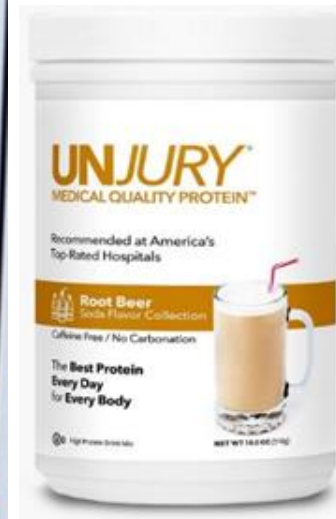
Protein Supplement Guidelines

Review the Nutrition Facts Label for Unjury Protein Powder:

- ▶ Check the serving size:
 - ▶ 1 scoop
- ▶ Grams of protein per scoop:
 - ▶ 21 grams (meets goal of 15-30 grams per serving)
- ▶ Grams of sugar per scoop:
 - ▶ Total sugars: 1 gram
 - ▶ Includes 0 grams added sugars
 - ▶ Which meets goal of:
 - ▶ 5 grams or less per serving of Total Sugars
 - ▶ 2 grams or less of Added Sugars

Nutrition Facts	
17 servings per container	
Serving Size	1 Scoop (about 30g ¹)
Amount per serving	
Calories	120
	% Daily Value*
Total Fat 2g	3%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 220mg	10%
Total Carbohydrate 4g	1%
Dietary Fiber 0g	0%
Total Sugars 1g	0%
Includes 0g Added Sugars	0%
Protein 21g	42%
Vitamin D 0mcg	0%
Calcium 100mg	8%
Iron 0mg	0%
Potassium 100mg	2%
Phosphorus 51mg	4%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



Protein Supplement Guidelines Continued

A review of the Ingredient List for Unjury Protein Powder:

- ▶ Check the ingredient list for protein sources:
 - ▶ Whey protein isolate
 - ▶ Milk based protein supplements suitable for people with lactose intolerance:
 - ▶ Whey protein “isolate”
 - ▶ Milk protein “isolate”
 - ▶ Soy protein and egg protein contains no lactose
- Note: Some protein supplements contain more than 1 protein source, so review the entire ingredient list
- ▶ Unjury Protein Ingredients:
 - ▶ Whey Protein Isolate
 - ▶ Non-GMO Sunflower Creamer Blend (Sunflower Oil, Maldextrin, Sodium Caseinate (a Milk Derivative), Mono and Diglycerides (with Citric Acid to preserve freshness), Tocopherols, and Tri-calcium Phosphate (Flow Agent) Natural and Artificial Flavors, Soy Lecithin, Sea Salt, Sucralose
 - ▶ *Unjury protein powder is suitable for people with lactose sensitivities or intolerance

Protein Supplement Guidelines (Plant Edition)

Examples of Plant Sources of Protein:

- ▶ Pea Protein
- ▶ Rice Protein
- ▶ *Example of incomplete protein but appropriate based on dietary preferences/restrictions
- ▶ Orgain Protein Powder follows the protein supplement guidelines!



Vegan • Soy Free • Gluten Free • Non-GMO

Nutrition Facts	
Serving Size 2 Scoops (46g)	
Servings Per Container About 10	
Amount Per Serving	
Calories 150	Calories from Fat 40
% Daily Value*	
Total Fat 4g	6%
Saturated Fat <0.5g	2%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 180mg	8%
Potassium 60mg	2%
Total Carbohydrate 15g	4%
Dietary Fiber 5g	20%
Sugars 0g	
Erythritol 5g	
Protein 21g	42%
Vitamin A 0%	Vitamin C 0%
Calcium 10%	Iron 20%

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

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Potassium		3500mg	3500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

INGREDIENTS:
ORGAIN ORGANIC PROTEIN BLEND™ (ORGANIC PEA PROTEIN, ORGANIC BROWN RICE PROTEIN, ORGANIC CHIA SEED),
ORGAIN ORGANIC CREAMER BASE™ (ORGANIC ACACIA GUM, ORGANIC HIGH OLEIC SUNFLOWER OIL, ORGANIC INULIN, ORGANIC RICE DEXTRINS, ORGANIC RICE BRAN EXTRACT, ORGANIC ROSEMARY EXTRACT), ORGANIC ERYTHRITOL, ORGANIC NATURAL FLAVORS, NATURAL FLAVOR, SEA SALT, ORGANIC ACACIA GUM, ORGANIC GUAR GUM, ORGANIC STEVIA, XANTHAN GUM

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VANILLA BEAN FLAVOR

Using as a Meal Replacement

- ▶ Can be used before surgery to replace up to 1 meal per day to keep:
 - ▶ 1. Control calorie intake
 - ▶ 2. Help meet daily protein needs
- ▶ For a meal replacement shake that contains less than 200 calories, add one additional food such as a piece of fruit to complete the meal
- ▶ Used after surgery to supplement your diet with a quality protein source
- ▶ For more information on ready to drink shakes or powders appropriate as a meal replacement, ask the registered dietitian during your next visit!



Protein-Focused Meal Plan

▶ Breakfast:

- ▶ Premier Protein Cereal 1 cup = 20 grams of protein
- ▶ 8 oz. 1% milk = 8 grams of protein
- ▶ $\frac{3}{4}$ cup of blueberries

▶ Lunch:

- ▶ Lettuce salad with a variety of vegetables (2 cups) = about 4 grams of protein
- ▶ 3 oz. grilled chicken = 25 grams of protein
- ▶ 2 Tbsp. Reduced-fat salad dressing
- ▶ 6 whole grain crackers = 3 grams of protein
- ▶ 17 small grapes
- ▶ ***This 1-day meal plan provides a total of about 109 grams of protein; this includes the 3 meals from above plus the light Greek yogurt. The number of snacks per day depends on individual needs**

▶ Dinner:

- ▶ 3 oz. grilled salmon = 22 grams
- ▶ 1 cup cooked quinoa = 8 grams
- ▶ 1 cup cooked broccoli = 3.7 grams
- ▶ 1 tsp. margarine
- ▶ 1 orange

▶ Snack Ideas with Protein:

- ▶ 1 oz of cheese and 6 whole grain crackers
- ▶ 1 Tbsp of peanut butter and 1 small apple
- ▶ Raw vegetables and 2 Tbsp of hummus
- ▶ ***Light Greek yogurt = 15 grams**
 - ▶ *Protein varies based on brand of yogurt

My Plate Planner Guide to a Healthy Meal Plan

- ▶ A healthy meal plan includes:
 - ▶ Lean meat, poultry, fish, or meat alternative
 - ▶ Vegetables
 - ▶ Fruits
 - ▶ Whole Grains
 - ▶ Dairy foods or non-dairy alternative that are calcium-rich
- ▶ *Meal planning is important to make sure you are achieving your daily nutrition goals. Check with your dietitian for more information on this topic.

- ▶ Follow the Plate Guide for planning your meals and snacks:

