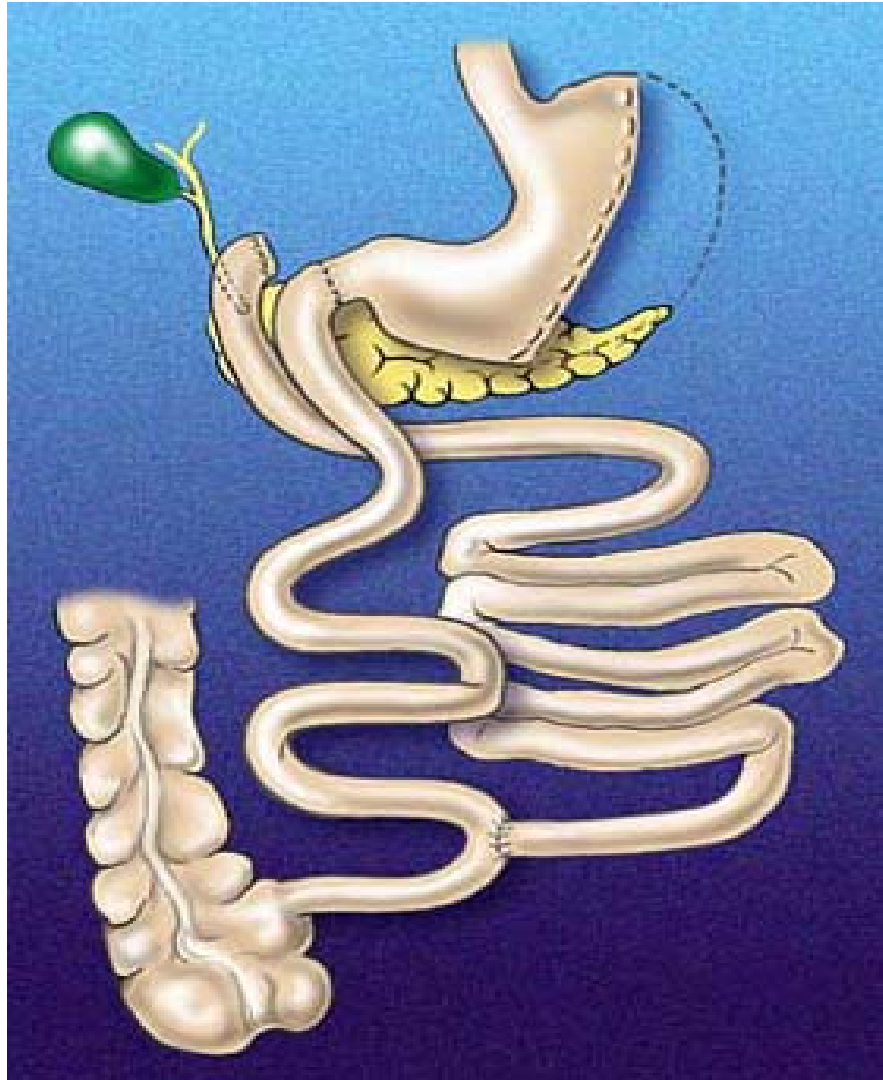


Nutrition Guidelines
Duodenal Switch Surgery
Johns Hopkins Center for Bariatric Surgery
Johns Hopkins Bayview Medical Center



How Does the Procedure Work?

The biliopancreatic diversion with a duodenal switch procedure is a malabsorptive procedure. This type of procedure restricts that amount of calories, vitamins, and minerals absorbed from food, resulting in weight loss.

The surgeon first removes about 67-75% of your stomach. This helps to slightly restrict the amount of food you are able to eat and help you fill up quicker. Next, the surgeon divides and rearranges your small intestines to separate food from digestive juices, allowing the malabsorption to occur. A portion of your intestine will be attached to the proximal duodenum and receive food from your stomach. The pylorus, the valve at the outlet of your stomach, is left intact which helps to reduce “dumping syndrome.” The remainder of the bypassed small intestine is left attached with the ability to carry the digestive enzymes. Finally, the surgeon attaches your small intestines together further down near the colon, allowing a 100 cm common channel for the digestive enzymes and food to combine and absorb nutrients.

Advantages of Duodenal Switch

- Larger stomach capacity
- Most patients do not experience dumping syndrome, with the pylorus intact
- Weight loss estimated at 75-80% excess body weight
- Very effective for high BMIs >55 kg/m²
- May keep weight off for long-term better than the other surgical options

Disadvantages of Duodenal Switch

- Greater chance of chronic diarrhea
- Greater chance of foul smelling stools and flatulence
- Higher risk for vitamin/mineral deficiencies; especially iron and calcium
- Carbohydrates are well tolerated and a large consumption of these can lead to inadequate weight loss or weight regain.
- Lactose intolerance and other possible food aversions

Dietary, Lifestyle, and Behavioral Changes

- 1. Eat slowly and chew your food well.** Failure to do so can result in nausea/vomiting or discomfort.
-Tips: Use infant utensils to slow you down, chew MANY times per bite, until food is absolutely LIQUID; allow at least 30 minutes for a meal.
- 2. Watch your portion sizes at meals.** The less food you put in front of you, the less you will eat.
- 3. Stop eating and drinking when you are full.** Again, failure to do so can result in nausea/vomiting and pain.

*****4. Drink adequate fluids to prevent dehydration. Aim for 64 oz (8 cups) of fluid a day. Avoid fluids with meals, and wait 30 minutes after a meal to resume drinking.**

For the first week post-op your stomach is swollen and it may take 30-60 minutes to drink a cup of liquid. Keep sipping all day to help prevent dehydration. Know that it gets easier as the weeks pass. Soon it will only take 5-15 minutes to finish a cup.

Beverages must be sipped, not gulped.

Tips: try children's "sippy" cups or a sports top water bottle to slow you down; keep fluids with you all day long and keep sipping, avoid fluids on the table while you eat.

*****Your urine should be very light, if not clear, as a sign you're getting enough fluid. Increase your fluid intake if any of the following signs are present: dark urine, headache, dizziness, confusion, a white coating on the tongue.**

5 Avoid carbonated beverages, beverages containing sugar, and caffeine. Instead choose sugar-free, non carbonated drinks such as: Crystal light[®], Fruit 2O[®], Diet Snapple[®], Light Minute Maid[®] drinks, etc... Caffeine can irritate the lining of the stomach and may increase your risk of ulcers after surgery.

-Tips:

- Wean off carbonated and caffeinated beverages before surgery to help prevent withdrawals.
- Choose beverages with **10 calories** or less per serving.
- If plain water sits heavy and you are having problems tolerating it add a sugar-free flavoring (e.g. True Lemon[®], lemon or orange slice, etc.)

6. Avoid alcoholic beverages. Alcohol, beer, and wine can cause weight gain and result in poor nutrition since they are high in calories and low in nutrients.

7. **Choose low-fat foods.** Read labels and choose foods that have ≤ 5 **grams** of fat per serving (snacks) and avoid fried/greasy foods.
8. **Avoid concentrated sugar. Keep simple sugars out of the first 3 ingredients on the food label, and AVOID:** dextrose, high fructose corn syrup, corn syrup, glucose, sucrose, molasses, and honey.
9. **Avoid “last supper” eating** (that “last hurrah” before your surgery). Weight gain, especially within a few weeks of your surgery, can increase the size of your liver, and may make it harder for your surgeon to get under your liver.
10. **Protein:** Aim for about **80-120 grams** of protein a day.

Sources of Protein

Foods	Protein (grams)
<i>Dairy and Eggs</i>	
Cheddar cheese, 1 oz.	7
Cottage cheese, ½ cup	16
Mozzarella, part skim, 1 oz.	8
Ricotta, part skim, ½ cup	10
Yogurt, fat free, 6 oz.	8
Greek Style Yogurt, plain, nonfat, 5 oz.	13
Milk, skim, 1 cup	8
Egg, 1 medium	6
<i>Meat, Poultry, and Fish (4 oz.)</i>	
Chicken, light meat, roasted, no skin	31
Ground beef, extra lean, broiled	33
Sirloin steak, choice cut, trimmed	35
Tuna, canned in water	33
Turkey breast, roasted, no skin	24
<i>Legumes and Nuts</i>	
Almonds, 1 oz.	6
Cashews, dry roasted, 1 oz.	4
Lentils, ½ cup cooked	8
Lima beans, ½ cup cooked	8
Peanut butter, 2 Tbsp.	10
Red kidney beans, ½ cup canned	8
Soybeans, ½ cup cooked	10
Tofu, 4 oz	9
Greek yogurt (non-fat, plain, 5 oz)	13

Protein Supplements

There are many brands of supplements available (ready-to-drink or powders).

For some examples, check out:

- Look for drinks made with **whey or soy protein isolate** (this is absorbed well), vs. whey protein concentrate, which has lactose, or milk sugar
- Strive for a protein with at least 20 grams of high-quality protein per serving, at least 3 times a day.
- Mix with skim or 1% milk for an additional 8 grams of protein per serving
- Aim for a product with less than 3 grams of sugar per serving.
- Avoid and/or limit collagen-based products (incomplete form of protein that is missing tryptophan, an important building block of protein)

Examples: Ready to drink – Atkins®, E.A.S. Isopure®, Zero Carb Isopure®

Powders – Designer®, Unjury®, Nectar®

11. Vitamin and mineral supplements Due to the malabsorptive nature of this surgery, you are required to take **vitamin/mineral supplements for the rest of your life.**

Multivitamin- TWO/day - WITH FOOD -NOT with dairy products.
AVOID taking at same time as calcium supplements.

ADEKs (chewed twice a day) WITH FOOD (see vitamin list for sources)

Calcium (2000-2400 mg a day) Take a maximum of 600 mg per DOSE of calcium as CALCIUM CITRATE (NOT calcium carbonate), in **3-4 doses per day** (NOT the same time as the multivitamin). Must contain vitamin D.

Example: Calcium citrate (Citracal®)

NOTE: It's OK to take calcium and ADEK vitamins at the same time.

Iron (60-65 mg elemental iron a day)

Example: Ferrous Fumarate (Vitron C®): Once a day on an empty stomach

SAMPLE Table for Taking Your Supplements

Breakfast	(2) multivitamins
Snack	600 mgs calcium
Lunch	ADEK vitamins; 600 mgs calcium
Snack	600 mgs calcium
Dinner	ADEK vitamins; 600 mgs calcium
Snack	iron

Diet Progression

In the Hospital:

A diet will be prescribed for you while in the hospital. Only clear liquids will be provided, in smaller amounts.

Bariatric Surgery Diet – Clear Liquids

- 1 ounces (oz) per hour (one medicine cup)
- Food tray will contain 4 ounces of: sugar free gelatin, low sodium broth, crystal light®, added Prosource® (protein supplement) packet
- **Mix the Prosource® with the crystal light in the 1 oz medication cup the nurses will provide**

***At discharge from the hospital you will go home on a full liquid diet for one full week.**

Liquid Diet: Week 1

You will be on a liquid diet for the first week after surgery. This diet includes all foods that are liquid at room temperature. Foods allowed during this diet include:

- Broth
- Low-fat/light yogurt (try plain Greek yogurt for more protein)
- Low fat ricotta cheese
- Low fat cottage cheese
- Sugar-free gelatin (e.g. Jell-o)
- Sugar-free Popsicles
- Sugar-free Fruit drinks
- Sugar-free Pudding
- Sugar-free Sherbet
- Water (add lemon of heavy taste)
- Decaffeinated coffee or decaffeinated tea
- 1% or skim milk
- Protein supplements (three times a day, in-between meals)

Sample Full Liquid Meal Plan (1st week post-op)

8:00	am	2 Tablespoons fat-free plain Greek-style yogurt (high in protein)
10:00	am	8 ounces of skim milk
11:00	am	8 ounces whey protein isolate drink (e.g. Isopure Zero Carb)
1:00	pm	2 Tablespoons low fat cottage cheese (plain)
3:00	pm	8 ounces whey protein isolate drink (e.g. Unjury)
6:00	pm	8 ounces Crystal Light, then 2-3 ounces sugar-free pudding
8:00	pm	8 ounces whey protein isolate drink made with skim or 1% milk
9:00	pm	8 ounces of decaffeinated tea

Pureed Diet: Week 2-4

For safe weight loss you need to eat a healthy, well-balanced diet. Everything needs to be blended to the consistency of applesauce for three weeks. This will be a challenge for you. Stick to it and be creative! Buy or borrow a blender or food processor if you do not own one.

Instructions for pureeing foods:

1. Cut food into small pieces about the size of your thumbnail.
2. Place food in the blender.
3. Add enough liquid (fat free chicken broth or fat free gravy) to cover the blades.
4. Blend until smooth like applesauce.
5. Strain out the lumps, seeds, or pieces of food.
6. Use herbs and seasoning (avoid spicy ones) to flavor food.
7. Use ice cube trays. Each cube holds about 1 ounce. This will help you to control portion sizes. Try preparing reduced fat cream soups or pureed meats and vegetables and store them in the trays.
8. Blend and enjoy!

Additional Instructions:

1. **Limit food to 2 to 4 ounces per meal (approximately 4 to 8 tablespoons).** Do not forget to consume protein first at each meal, then vegetable and fruits, then “whole” grains.
2. **Aim for 6 small meals per day at this point.**
3. **Drink at least 6-8 cups (48-64 ounces) of fluid per day.** Liquids should be sipped in between meals.

Keep food records. This will help you to monitor your intake and tolerance to foods. Look for patterns of foods tolerated well and food that are not tolerated well. The records will also be helpful for your dietitian to provide suggestions for better tolerance or nutrient balance. Record the: Time

Type of food (ex: baked chicken without skin)

Amount eaten (ex: 2 ounces chicken breast)

Please remember to bring these records with you for the dietitian to review.

Pureed Food Diet: Weeks 2 to 4

FOOD	CHOOSE	AVOID
Beverages	Water, Crystal Light [®] , coffee, tea, non-carbonated beverages, and nutritional drinks	Fruit drinks, iced tea with sugar, soda, alcohol, and all carbonated beverages
Soups	Egg drop soup, reduced fat cream soups, broth, and bouillon	All others
Bread, Cereal, Pasta and Rice	Hot cereal (oatmeal, grits, cream of wheat), mashed potatoes	Pasta, bread, rice, and all other starches
Vegetables	Any cooked soft and blended or mashed with a fork	All others
Fruits	Unsweetened applesauce, mashed bananas, any fruit pureed without the seeds, skin or hulls	All others
Meats, Poultry, Fish, Nuts, Beans and Eggs	Pureed fish, tuna, poultry, veal, pork, or beef; baby food meats; mashed tofu, scrambled egg or egg substitutes	Peanut butter; all others
Milk, Cheese, and Yogurt	Fat free or 1% milk, low-fat cottage cheese, low-fat or non fat cheese (Alpine Lace [®]), low fat/unsweetened/low sugar yogurt (Dannon Light and Fit [®])	Chocolate milk, sweetened condensed milk, 2% or whole milk
Miscellaneous (all should be sugar-free)	Gelatin, popsicles (Dole [®]), pudding, custard, sugar free frozen yogurt, sugar free fat free ice cream	All others

After four weeks of following the liquid and pureed diet, you may begin to add food gradually to your diet, but only ONE new food at a sitting, and remember to avoid anything too spicy, tough or dry.

Sample Pureed Menu

8:00 a.m.	¼ of a mashed banana 2 tablespoons of fat-free Greek yogurt
9:30 a.m.	2 tablespoons of low fat cottage cheese
11:00 a.m.	8 oz fat free milk with one serving of a protein powder supplement
12:00 p.m.	8 oz decaffeinated iced tea
1:00 p.m.	2-3 tablespoons pureed chicken 2 tablespoons pureed green beans 1-2 tablespoons mashed potatoes 1 tablespoon fat-free gravy
2:30 p.m.	8 oz Crystal Light®
3:00 p.m.	2 oz low fat ricotta cheese 2-3 tablespoons applesauce
4:00 p.m.	8 oz water with lemon
4:30 p.m.	8 oz skim or 1% milk with protein powder
6:00 p.m.	2-3 tablespoons pureed fish 2 tablespoons pureed broccoli 2 tablespoons mashed sweet potato
7:30 p.m.	6 oz broth
8:45 p.m.	4-6 tablespoons sugar-free pudding

Keep food records. This will help you to monitor your intake and tolerance to foods. Look for patterns of foods tolerated well and food that are not tolerated well. The records will also be helpful for your dietitian to provide suggestions for better tolerance or nutrient balance.

Record the: Time
 Type of food (ex. Baked chicken without skin)
 Amount eaten (ex. ½ chicken breast or ½ cup)
 How your food was prepared (ex. Baked with broth). Be sure to include any butter, oil, grease or margarine that was added to the food.

Please remember to bring these records with you for the dietitian to review.

Soft Diet - After 4 weeks of following the Pureed Diet, you may proceed to a Soft foods diet.

Instructions:

1. **Limit food to 4 to 6 ounces per meal (approximately 8 to 12 tablespoons).**
Do not forget to consume protein first at each meal
2. **Aim for three meals per day with one high protein snack.**
3. **Eat slowly, and remember to chew your food until totally liquid.**
4. **Food choices should be low in fat, low in sugar, and low in calories.**
5. **Use any of the foods recommended on the pureed diet.**

SOFT FOODS – This is to be followed for 2-4 weeks after the pureed diet

FOOD	CHOOSE	AVOID
Beverages	Same as “Liquid and Pureed Diet”	All others. Limit carbonated beverages
Soups	Same as “Liquid and Pureed Diet”	All Others
Bread, Cereal, Pasta, and Rice	Hot or refined cereal, mashed potatoes without the skin, rice, pasta, toast, or crackers	All Others
Vegetables	Soft cooked vegetables	Vegetables with tough hulls or skins like peas and corn
Fruits	Unsweetened cooked or canned fruit in their own juice (no syrup), fruits without seeds or skin, banana and citrus fruits without the membranes, unsweetened fruit juice	All others
Meat, Poultry, Fish, Nuts, Beans and Eggs	Ground lean meat (meatloaf, meatballs, hamburgers), poultry or fish (cooked soft and moist); casseroles made with ground meat, kidney beans, lentils, creamy peanut butter, eggs	Avoid nuts. No diced meats/protein until ground meat tolerated for at least 2 weeks AVOID tough/dry/grilled meat and chicken, and be sure to add low-fat gravy to keep foods moist
Milk, Cheese, and Yogurt	Fat free or 1% milk, low-fat cottage cheese, low-fat or non fat cheese (Alpine Lace [®]), low fat/unsweetened/low sugar yogurt (Dannon Light and Fit [®])	Chocolate milk, or sweetened condensed milk, 2% or whole milk
Miscellaneous (sugar free)	Gelatin, popsicles (Dole [®]), pudding, custard, sugar free frozen yogurt, sugar free fat free ice cream	All others

Sample Soft Menu

7 am	8 ounces water with lemon or lime
8 a.m.	1 scrambled egg with 1 oz of low-fat cheese 1 soy sausage link
9 am	8 ounces Crystal lite or other beverage without caffeine, carbonation or sugar
10 a.m.	8 oz skim milk with one serving of a protein powder
12 p.m.	2-3 tablespoons tuna fish (made with low fat mayonnaise) 2 tablespoons unsweetened apple sauce 2 tablespoons cooked green beans
2 p.m.	2-4 oz sugar free yogurt or low fat cottage cheese with 2 oz pureed fruit or 2-4 oz low fat ricotta cheese with cinnamon
3 pm	8 oz skim or 1% milk
6:00 p.m.	4 tablespoons chicken (very tender and moist; try crock pot) 2 tablespoons soft cooked broccoli 1 peach half (canned in natural juices)
7-9 pm	16 ounces Crystal Lite or Propel (sipped, not gulped)

After 2-4 weeks of the soft food diet you should gradually introduce more food choices. Keep food records of your tolerance and intake. Remember that food intolerance is highly individualized. Take your time at meals and chew very well to help increase your tolerance to these foods. Eventually you should be able to tolerate diced meats and a wider variety of breads, cereals, fresh fruits, and fresh vegetables.

Keep in mind that your diet needs to be *low-fat, low calorie, sugar-free, and portion controlled* for the rest of your life. This is the commitment you must make to achieve maximal weight loss.

Some possible nutrition problems that may occur:

- **Hair loss:** This is usually due to rapid weight loss, and typically presents about 3-6 months after surgery. The good news, is that it's usually just all-over thinning, not noticeable (maybe only to you), and usually resolves in another 3-6 months. Biotin supplements may help, as well as ensuring that your fluid, protein, iron and zinc levels or intake are good.
- **Nausea or Vomiting:** Usually caused by eating too fast, too much, or drinking with your meals. If it is not food related, call your surgeon's office.
- **Bad taste in mouth:** This is common right after the surgery and should go away after a few weeks.
- **Decreased appetite and taste changes.** It is very common to not feel hungry right after surgery and to have altered taste sensation. You need to eat ensure that you get proper nutrition and to prevent complications.
- **Increased gas:** This is also common after the surgery, especially during the first few weeks. It can be a sign of lactose intolerance. If you have gas pains at home, try simethicone drops (Gas X[®]). Deverom[®] can help with the smell.
- **Loose stools and/or diarrhea.** Since you don't absorb all the fat in your diet after your duodenal switch surgery, some people have diarrhea. If it seems like it's a constant thing and/or worsens, please check with your doctor, since it could be a possible sign of an infection and/or they may want to run tests, etc.
- **Excess skin:** With significant weight loss, there is usually excess skin, but the level will depend on several factors, including how much weight you lose, where you lose it, genetics, age, and whether you're a man or a woman. Weight training may help minimize the appearance of loose skin, but only plastic surgery will help to get rid of it. Most people find it's really not a big issue, especially in light of how great they feel at a much lower weight, and how they're improved their health with the surgery and weight loss.
- **Pregnancy:** This must be avoided for the first 18 months following surgery. Pregnancy during this time could cause complications and deficiencies for you and your baby and may result in birth defects. For this reason you need to take precautions to prevent pregnancy. Rapid weight loss increases fertility so you must be very careful.

CHECKLIST AFTER DUODENAL SWITCH SURGERY

- ✓ 80-120 grams of protein a day
 - Eat protein first at all meals
- ✓ Eat slowly and chew well
 - Meals should take 30-45 minutes
 - Avoid snacking on high calorie foods in between meals
- ✓ 48-64 oz of fluid a day (more if your urine is dark or you're dizzy)
 - Beverages less than 10 calories per serving
- ✓ Vitamin/mineral supplementation for life
 - Multivitamin (TWO a day, with food)
 - ADEKs (2/day, with food)
 - Calcium 2000-2400 mgs a day...in divided doses (4-5 times a day) no more than 600 mgs at one time, and apart from vitamin/minerals and iron)
 - Iron (bed time best, not with calcium)
- ✓ Exercise
 - Aim for at least 30 minutes on most days of the week...5 minutes at a time, and gradually build up, as tolerated
 - Incorporate light weights (about 2 months after surgery, and/or as your surgeon recommends)
 - Consider stretching and the importance of a stress management program in your regimen

DIETITIAN VISITS:

- ✓ 2 - 4 weeks post-op duodenal switch
- ✓ 3 months post-op
- ✓ 6 months post-op
- ✓ 1 year post-op
- ✓ Once a year after first year

NOTE: You may need to see your dietitian more often than above if you're having any nutrition problems and/or if your doctor feels you need to be seen for any reason.

You can schedule your nutrition appointment with Access Services: (410) 550-7728.

*Pureed Food Recipes

Basic Meat Stew

2 tbsp. oil
1 ½ pounds boneless stew meat, cut into 1 inch cubes
1/3 cup flour
3 cups liquid (water or vegetables juice)
4 medium potatoes, scrubbed and cut up
5 medium carrots, scrubbed and cut up

Heat oil in a large size heavy saucepan over medium high heat. Coat the meat in flour and brown in the oil. Add the liquid and cover tightly. Simmer over medium heat for 1 ½ hours. Add potatoes and carrots. Cover and simmer for 20 minutes. Puree stew in food processor or blender until smooth. Store in refrigerator up to 2 days or in the freezer for 2-3 months. Makes 20-25 food cubes

Nutrition Facts:

Serving Size: per 4.65 ounces

Calories: 139 Protein: 13 grams Total Fat: 4.21 grams

Soybean Puree

1 cup dry soybeans
3 cups water
¾ cup unsalted tomato juice for thinning

Rinse and soak the soybeans overnight in the refrigerator. Simmer beans in 3 cups water for about 2 hours. Puree with food processor or blender, adding tomato juice to thin. Makes 12 food cubes

Nutrition Facts:

Serving Size: per 3.17 ounces

Calories: 67 Protein: 6 grams Total Fat: 3 grams

Combination Dinner

1 cup cooked meat (beef, chicken, fish, ham, etc.)
2/3 cup cooked vegetables
1 cup stock

Place in blender or food processor. Puree and freeze into ice cube trays.

Nutrition Facts:

Serving Size: per 2 ounces

Calories: 36 Protein: 5 grams Total Fat: less than 1 gram

Pureed Legumes

1 cup any legume (black beans, kidney beans, garbanzo beans, navy beans, pinto beans, black eye beans, lentils, etc...)
3 cups water
 $\frac{3}{4}$ cup nonfat milk

Rinse 1 cup of any legume. Soak in water overnight or bring to a boil for 2 minutes, cover, and then allow to sit for 2 hours. Drain off the soaking water or cooking water, then add 3 cups fresh water and bring beans to a boil. Reduce heat and simmer, covered, until beans are tender (30 minutes-2 hours depending on the legume). Skim the surface often as beans are simmering. Puree with $\frac{3}{4}$ cup nonfat milk. Freeze in ice cube trays.

Nutrition Facts:

Serving Size: per 2 ounces

Calories: 28 Protein: 2 grams Total Fat: less than 1 gram

Cream of Tomato and Chile Soup

1 Tbsp Olive Oil
1 large yellow onion, diced
3 cloves garlic, minced
10 plum tomatoes
2 red jalapeno peppers, diced, seeds removed
Water as needed
 $\frac{1}{3}$ cup skim milk
3 scoops protein powder
Salt and pepper to taste

Heat oil in a stock pot or large saucepan over medium heat. Add onion and garlic, sauté until onion has softened. Add the tomatoes and jalapeno peppers, cook until heated through. Add just enough water in the pot to just cover the vegetable mixture. Simmer for 10-15 minutes over low heat. Place the contents of the pot into a blender or food processor, puree until smooth. Strain contents of the blender through a fine colander. Add milk, protein powder, and salt and pepper to taste. Store in the refrigerator for up to 2 days or 1 month in the freezer.

Makes: 32 1oz. food cubes

Nutrition Facts:

Serving Size: per 1 ounce

Calories: 23 Protein: 3 grams Total Fat: less than 1 gram

Basil Mashed Potatoes

4 medium Yukon gold potatoes, peeled, cut into 1 inch cubes
3 Tbsp Smart Balance spread
 $\frac{1}{4}$ cup skim milk
 $\frac{1}{3}$ cup of fresh basil leaves, pureed with 2 Tbsp of olive oil
Salt and pepper to taste

Place potatoes in a stock pot filled with cold water. Place pot on stovetop over high heat. Boil potatoes until very soft (To check if the potatoes are soft enough, just take a fork and push a piece of potato against the side of the pot. If the potato breaks easily it is ready). Strain out the water from the pot in a colander. Place potatoes back in the empty stockpot. With a hand mixer mix the potatoes until they are a “paste” consistency. Mix in the Smart Start spread, butter, basil puree, and salt and pepper. Store in the refrigerator for up to 2 days or 1-2 months in the freezer.

Makes: 25-30 1oz servings

Nutrition Facts:

Serving Size: per 1 ounce

Calories: 38 Protein: 1 gram Total Fat: 2 grams

Chocolate and Banana Pudding

1 cup of sugar free/ fat free chocolate pudding

1 whole banana, peeled and pureed

1 scoop of protein powder

Combine all ingredients in a medium sized bowl. Mix thoroughly. Serve cold. Keep in the refrigerator for up to 1 week or 2-3 months in the freezer.

Makes 10-12 1oz. food cubes

Tip: If freezing pudding in ice cube trays. Place a toothpick inside of each cube of pudding before freezing to create chocolate and banana fudge popsicles.

Nutrition Facts:

Serving Size: per 1 ounce

Calories: 28 Protein: 3 grams Total Fat: less than 1 gram

Orange and Cream Protein Smoothie

2 cups of vanilla fat free yogurt

1/3 cup of orange juice

1 cup of skim milk

3 scoops of protein powder

Combine all ingredients in a blender. Blend until smooth. If you would like a thinner smoothie, just add more skim milk to blender until desired consistency is reached. Keep in the refrigerator for up to 2 days or 1 month in the freezer.

Makes 24-28 1oz. servings

(Tip: This recipe can also be made into a popsicle by using the same method as the Chocolate and Banana Pudding.)

Nutrition Facts:

Serving Size: per 1 ounce

Calories: 32 Protein: 4 grams Total Fat: less than 1 gram

Recipe Reminders:

- ❖ Be creative. Try pureeing different meats and vegetables.

- ❖ Add flavor by using liquids other than water.
- ❖ Try adding herbs and spices.