



Your Health Matters

Blender Nutrition After Oral Surgery

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Getting the right nutrition can be a challenge for any patient who has undergone surgery, but as an oral surgery patient, you face a unique set of challenges. Because you have had surgery in your mouth and your teeth may be wired and your jaws clenched shut, all of your nutrition must be in liquid form, taken either by cup, straw, or syringe. Some MDs prefer a full liquid diet until your first clinic visit. Consult your MD before beginning the blender diet.

Calories and Weight Loss

Some people see their time of jaw fixation as a quick and easy way to lose weight. However, eating enough calories to maintain your weight is important.

Getting enough calories means your body can save the protein you eat for healing instead of having to convert it to energy.

Getting Enough Protein

Because your jaw tissue and bones need to heal, your protein needs are higher than before surgery. Fortunately, meeting the increased requirements is fairly easily achieved, as most healthy Americans already eat more protein than they need.

To estimate your protein needs, multiply:

Your weight (in pounds) x 0.45 = Protein needs/day (in grams)

Example: A 135 lb. woman needs about 60 g protein/day

Protein Content of Food

Most packaged foods have a Nutrition Facts label which lists grams of protein for one serving of the item. The label also shows how many servings are in one package of the item. For foods without labels, use these guidelines to estimate how much protein a food item has:

Each of the following provides ~8 grams of protein:

- 1 oz. beef, pork, poultry, fish
- 1/2 cup cooked legumes
(dried beans, lentils, peas, chickpeas)
- 2 tbsp. peanut (or other nut) butter
- 1 oz cheese, 1 egg
- 1 cup whole milk, yogurt, ice cream
- 1/3 cup nonfat dry milk or protein powder
- 4 oz. tofu, 1 cup soy milk

Estimating Portion Size

Use these tips to help estimate sizes.

- 3 ounces meat = A deck of cards or the palm of your hand
- 1 ounces cheese = 1 inch cube
- 1 cup of milk or yogurt = 1 baseball
- 1 oz meat – A matchbook portion

Vitamin Supplements

By eating a variety of foods according to the Food Pyramid;

- 6-11 servings grains;
- 2-3 servings protein-rich foods;
- 3-5 servings vegetables;
- 2-4 servings fruits;

you should be able to get the nutrients you need for healing. Some people, however, choose to take supplements, especially in the first two weeks after surgery when pain limits the amount of food they can eat.

If you decide to supplement, use a liquid multivitamin with minerals or drink fortified beverages (Resource, Boost, Ensure) for extra nutrition.

Equipment

Blender or Food Processor

A good blender or food processor is the key to good nutrition while your jaw is wired. Make sure yours is capable of pureeing food until almost no texture remains. Small pieces of food can get stuck in the wires and between the teeth. To smoothly blend most foods:

- One minute on low speed (puree)
- Two minutes on high (liquefy)

Syringe

You should have received several syringes from the hospital. The small, curved-tip syringe is for rinsing your mouth when you wake up, after you eat, and before bedtime. The larger syringe with the wider, straight-tip is more practical for “eating”.

Tips for usage:

- To draw up liquids, place syringe tip into the food and carefully pull back the inside piece. You may find it easier to manage eating with the syringe by starting with smaller amounts.
- Always clean the syringe immediately after use by drawing up hot, soapy water from a bowl, and follow by rinsing the same way with clean hot water.

Straw and Cup

Do not use a straw right after surgery because the sucking required puts too much pressure on the sutures. A syringe may be more appropriate at this time. Wait about 2 weeks, until the swelling goes down, to try using a straw, but even then, only if your doctor has approved straws for your particular type of surgery.

- When appropriate, wide straws work best.

Lip Lubricant

Since you can't moisten your lips with your tongue, they may become dry and cracked.

- Use a lubricant such as Vaseline, Chapstick, or lanolin.

Dental Wax

Exposed wires can irritate your gums. Many patients find that a tiny piece of dental wax (which your doctor has available), molded over the sharp wire, protects the gums. Ask your MD to adjust any sharp edges.

SAFETY

Vomiting

Some people worry about choking if you get the urge to vomit. Vomiting is very rare after oral surgery but if it occurs, follow these steps:

- Lean forward as far as you can.
- Hold your head to the side.
- Pull the cheek on that side away from your teeth so that the vomitus can easily flow out of your mouth.
- Rinse your mouth well afterwards.

Carbonated Drinks

Some people experience difficulty breathing after drinking sodas because the carbonation foams up in the back of their throat. If this is not a problem for you, carbonated drinks could be a source of calories. Keep in mind that regular sodas provide calories but contain no protein or quality nutrition. If you tend to get full easily, limit regular sodas and avoid diet drinks.

Alcohol

Avoid alcohol while your jaw is fixated. Alcohol dulls the senses and increases your risk of choking. Furthermore, when you drink your risk of falling and re-injuring your jaw is greater when alcohol is present.

Infection

If you notice any signs of infection, notify your doctor immediately. Look for:

- Unusually intense pain, or
- Increased jaw swelling.

Adding Eggs

Raw eggs carry a high risk of Salmonella contamination. Instead of raw eggs, use cooked eggs or pasteurized egg product, available in the refrigerator section of grocery stores. These are easy to add to a shake for extra protein and other nutrients.

Wire cutter

In case of an emergency where you can't breathe, a wire cutter has been provided to allow you to open your jaw. Since cutting the wires may affect the surgical repair, it is intended only for extreme emergencies.

Helpful Hints

To Increase Calories

- Add butter, cream, half-and-half, gravy.
- Use vegetable oils, avocado.
- Add honey, sugar, molasses, maple syrup.
- Use full-fat dairy products such as whole milk.

To Increase Protein

- Use protein-fortified milk or make your own “Super-Milk”.
 - Super-Milk Recipe: Add 2 tbsp. dry milk powder to 8 oz. whole milk
- Add ice cream, yogurt, or Instant Breakfast mix to shakes.
- Add protein powder.
 - Available at most retail grocery stores and natural food stores.
- Use pasteurized eggs, eggnog, malted mix.

Time-Saving Convenience Foods

- Baby food
 - Strained meat is a good source of protein.
- Canned soups, creamy and chunky
 - Blenderize. Add milk to thin if necessary.
- Canned fruits or vegetables
 - Blenderize. Add fruit juice or tomato juice to thin if necessary.
- Carnation Instant Breakfast, Malt-o-Meal, Cream of Wheat
 - Makes a quick breakfast. Just add whole milk, sugar, wheat bran.
- Fruit smoothies from retail juice stores
 - Order with added protein powder, frozen yogurt, or ice cream.
- Nutritional supplements like Ensure, Boost, Resource.
- Prepare more than one serving at a time. Store in the refrigerator for 2-3 days, or freeze in individual Styrofoam cups, labeled and dated. Defrost in the refrigerator.

Milk or Lactose Allergy

- If you are lactose intolerant, use Lactaid-brand milk and lactose-free (check labels) nutritional supplements, such as Boost, NuBasics, Resource, Pediasure (in most drugstores).
- If you are allergic to milk protein, substitute calcium-fortified soy, almond, or rice milk and cheese.
- Use soy-based frozen dessert such as Tofutti in place of ice cream for shakes.

Problem-Solving Tips

Problem	Solution
Liquids Too Thick	<p>Make food thinner by adding liquids:</p> <ul style="list-style-type: none"> • Add whole milk or cream to shakes, soups, hot cereal • Add fruit juice to shakes, smoothies, hot cereal, yogurt • Add meat or vegetable broth or tomato juice to meats, soups
Feeling Full	<p>Eat smaller meals 5-6 times/day.</p> <ul style="list-style-type: none"> • Maximize the calories and protein in what you do drink. • Avoid “empty calorie” beverages like coffee, tea, diet soda • Limit “sugar-only” beverages like sodas
Constipation	<p>The anesthesia and pain medicine from surgery can cause constipation, but this effect will wear off within a few days. Meanwhile, increase the fiber content of your food:</p> <ul style="list-style-type: none"> • Add fruits to smoothies (peel off tough skins and avoid raspberries or other fruits with seeds that don’t blend well) • Add vegetables to soups (avoid celery, corn, cabbage and asparagus that don’t blend well) • Choose high fiber bean soups, such as lentil, split pea, black bean • Read food labels on prepared foods. Look for >5g fiber • Add wheat bran to cereals, soups, shakes (2 tbsp./day) • Try adding prune juice once a day
Diarrhea	<p>Check with your doctor to see if your medications may be the cause.</p> <p>Eat smaller amounts at each sitting.</p> <p>Some people find relief from nausea with ginger.</p> <ul style="list-style-type: none"> • Add ginger juice to beverages or boil a piece of the root in soup (remove root after cooking because it is too fibrous to blend well)
Pain Makes Eating Difficult	<p>Eat a small amount of food at one time.</p> <p>Contact your doctor about the pain medicine you are taking.</p>
Excessive Weight Loss	<p>If you lose >10 pounds, or 5% of your pre-surgery weight:</p> <ul style="list-style-type: none"> • Consider taking supplemental beverages between meals, for example, Resource, Boost, Ensure • Refer back to “Helpful Hints” on increasing calories and protein • Contact your nutritionist or doctor for further guidance

Difficulty Eating with Other People	<p>Try eating with close family and friends before eating in public.</p> <p>Blenderize the same food everyone else is eating.</p> <p>If approved by your surgeon, try using a straw and drinking from a covered cup.</p>
Boredom with Diet	<p>Use a variety of herbs and spices in cooking.</p> <ul style="list-style-type: none"> • Add ground dill, oregano, basil, parsley, or your favorite herbs to savory food, and ground cinnamon, ginger, or nutmeg to shakes <p>Experiment with chocolate syrup, vanilla extract, flavored syrups.</p> <p>Try the recipes provided at the end of this handout.</p>

Sample Menu

Blenderized foods for the first 4-6 weeks, while your jaw is wired)

- Breakfast: Hot Cereal (Malt-O-Meal, Cream of Wheat...)
- Blenderized with brown sugar, “super milk” *, butter, wheat bran.
- Fruit or Vegetable Juice
- Snack: Fruit Smoothie
- Add protein powder.
- Lunch: Progresso Split Pea Soup (canned)
- Blenderized and thinned with “super milk” *
- Canned Fruit
- Blenderized and thinned with fruit juice
- Snack: Milkshake or Eggnog
- Dinner: Mashed Potatoes and Gravy
- Blenderized with butter, cream, and thinned with broth
- Creamed Vegetables
- From baby food peas and carrots
- Snack: Chocolate and Vanilla Swirl Pudding
- Add bananas and thin with chocolate milk

* “Super Milk” Recipe: Add 2 tbsp. dry milk powder to 8 oz. whole milk

Sample Menu #2

(Soft foods for 1-2 weeks after the wires are removed)

- Breakfast: Oatmeal, Yogurt, Banana, Juice
- Snack: Applesauce with Cinnamon
- Lunch: Chunky Potato Soup, Steamed Vegetable, Vanilla Pudding
- Snack: Fresh Strawberries
- Dinner: Fish, Baked Potato, Creamed Corn

Recipes

Shakes And Smoothies

Creamy Orange Delight

- 1 cup whole milk
- 1 cup orange juice
- 3 cups orange sherbet
- 3 packages vanilla Instant Breakfast
- 2 small ripe bananas

Blend until smooth.

Yields: 4 cups

Per cup: 418 calories, 10 g protein

Chocolate Dream

- 2 cups vanilla ice cream
- 1 cup whole milk
- 1/4 cup chocolate syrup

Blend until smooth.

Yields: 1 1/2 cups

Per cup: 711 calories, 13 g protein

- ▶ Variation: Add 2 tbsp. peanut butter and 3 tbsp. malted milk powder
Per cup: 944 calories, 21 g protein

Blueberry Lemon Shake

- 3 cups frozen blueberries
- 1/2 cup sugar
- 1 1/2 cups half and half
- 3 Tbs. Lemon juice
- milk to thin

In blender combine all ingredients until smoothly pureed. Can thin shake with additional milk if desired.

Yields: 4 cups

Per cup: 279 calories, 3.5 g protein

Banana Pineapple Hawaiian

- 1 cup pineapple juice
- 1/2 cup coconut milk (sweetened)
- 1/3 cup dry milk powder
- 1 ripe banana
- 1/2 cup vanilla ice cream

Blend until smooth.

Yields: 3 cups

Per cup: 334 calories, 8 g protein

Basic Milkshake

- 2 cups ice cream
- 1 cup whole milk

Blend until smooth. Can add extra milk if too thick

Yields: 1 1/2 cups

Per cup: 575 calories, 12 g protein

Peaches-n-Cream

- 2 peeled ripe peaches, or 4 canned peach halves
- 1 cup ice cream
- 1 cup super milk
- 3 ice cubes (optional)

Blend until smooth.

Yields: 3 cups

Per cup: 210 calories, 6 g protein

Morning Mocha

- 1 pkg. Carnation Instant Breakfast
- 1 cup ice cream
- 1 cup super milk
- 1 tbsp. instant coffee
- 2-3 ice cubes, crushed

Blend ice cream and coffee. Add crushed ice.

Yields: 2 cups

Per cup: 316 calories, 12 g protein

Soups

Cream of Pumpkin Soup

- 2 tbsp. butter
- 1 med onion; roughly diced
- 4 cups pureed pumpkin (canned or fresh)
- 3 quarts chicken or vegetable stock
- 1 tsp salt
- 1 tsp ground coriander
- 1/2 tsp curry powder
- 1/2 tsp white pepper
- 3 cups milk and/or whipping cream

Melt butter in a 2-quart pot over medium heat. Add the onion and cook, stirring occasionally, until onion softens, about 10 minutes. Add the pumpkin and salt and continue to cook, stirring, another 15 minutes for fresh pumpkin, 5 minutes for canned. Add the stock, salt, coriander, curry and pepper. Cover, increase heat to high and bring to a boil. Reduce heat to low and simmer 15 minutes. Remove from heat and place in a food processor or blender and puree until smooth. Combine puree and milk. Cover, bring to the boil and cook 2 minutes.

Yields: 19 cups

Per cup: 55 calories, 2 g protein

Cream of Tomato Soup

- 2 Tbsp. margarine
- 1 tsp onion powder
- 3 Tbsp. flour
- 2 tsp sugar
- 1 tsp. salt
- 1/8 tsp pepper
- dash of basil, garlic, salt oregano, thyme
- 2 cups tomato juice
- 2 cups milk

Melt margarine in a saucepan. Blend in flour. Add remaining ingredients until mixtures thickens.

Yields: 4

Per 1 cup: 174 calories, 5.5 g protein

Chilled Mango Cantaloupe Soup

- 1 whole cantaloupe
- 2 cups whole milk or soy milk
(Soy milk: Use creamy, vanilla Vitasoy)
- 1 cup mango juice
- 2 tbsp. protein powder

Remove cantaloupe rinds, seeds, and cut into chunks. Put all ingredients in food processor or blender. Process until mixture is completely smooth. Chill for 2 hours in refrigerator.

Yields: 6 cups

Per cup: 115 calories, 5 g protein

Cheesy Potato Soup

- 1 can cheese soup (11 oz.)
- 1 1/2 cups mashed potatoes
- 1 cup Super Milk
- 1/4 cup dry milk powder
- Butter to taste

Blend ingredients together until smooth. Heat in saucepan to desired temperature.

Yields: 4 cups

Per cup: 300 calories, 10 g protein

Cream of Chicken Soup

6 tbsp. butter or margarine

1/3 cup all-purpose flour

1/2 cup liquid non-dairy creamer

- 1/2 cup half-and-half
- 3 cups low sodium chicken broth
- 1 cup cooked or canned chicken, finely minced
- Dash of white pepper

Melt butter in saucepan. Blend in flour, add non-dairy creamer, half-and-half, and broth. Cook and stir until mixture thickens and boils; reduce heat. Stir in chicken and white pepper.

Yields: 5 cups

Per cup: 300 calories, 15 g protein

Side Dishes

Creamed Noodles

- 4 oz. uncooked egg noodles
- 1/4 cup margarine or butter
- 1/4 cup yogurt
- 1/4 cup grated parmesan cheese
- 1/2 tbsp. parsley flakes
- 1/8 tsp. salt, dash of pepper

Cook noodles and drain. Combine remaining ingredients in saucepan with noodles over low heat stirring until margarine is melted.

To blend, combine: 1 cup creamed noodles, 1/2 cup water, 1 slice American cheese

Yields: 1 1/2 cup (1 cup creamed noodles plus water and cheese) Add milk or water to thin.

Per serving (1 1/2 cup): 534 calories, 17.5 g protein

Chicken and Rice Soup

- 2 quarts chicken broth
- 2 cups diced cooked chicken
- 1/4 tsp salt
- 1/2 cup celery
- 2 scallions chopped
- 2 carrots, peeled and sliced thin
- 3 whole cloves
- 1/2 tsp nutmeg
- 1 tsp dried parsley
- 1 bay leaf
- 1 cup frozen peas
- 1 cup sliced fresh mushrooms
- 1/2 cup quick rice (dry)

Combine all ingredients in a 4-quart stockpot. Bring to a boil, reduce heat, and simmer for 30 minutes. Remove bay leaf and cloves before blending.

Yields: 10 cups

Per cup: 138 calories, 14 g protein

Butternut Squash

1 butternut squash

2 tbsp. olive oil

1 tbsp. brown sugar (optional)

1 1/2 cups vegetable broth or water

1 tsp. curry powder (optional)

Use vegetable peeler to peel squash, then cut into 2" cubes; set aside. Heat oil in medium saucepan. Add onions, sauté until translucent. Add brown sugar and curry, cook 2 minutes more. Add squash, broth to onions. Let simmer until squash is easily pierced with a fork (about 20 minutes). Put all ingredients in blender or processor and blend until smooth.

Yields: 4 cups

Per cup: 105 calories, 1 g protein

Hummus

- 15 oz. can garbanzo beans, with juice
- 2/3 cups tahini (ground sesame seeds)
- 3/4 cup lemon juice
- 1 tsp garlic powder or fresh, chopped garlic
- 1 tsp salt
- 2 tbsp. Olive oil
- 1/2 cup vegetable broth

Blend until smooth

Yield: 4 cups

Per cup: 434 calories, 12.5 g protein

Savory Entrees

Sweet Potato and Apple Bisque

- 1 tbsp. canola oil
- 1 cup chopped onions
- 1 pound sweet potatoes
- 1 Granny Smith apples
- 1 1/2 cups low-sodium chicken broth
- 3/4 cup apple juice
- Dash of black pepper

Peel potatoes and apples and cut into 1" cubes. In a large saucepan, heat oil over medium heat. Add onion and cook ~3 minutes, stirring occasionally, until tender. Add remaining ingredients, cover partially, and bring to boil. Reduce heat and simmer for 15 minutes or until potatoes are tender. Cool slightly. Blend until smooth in food processor.

Yields: 3 cups

Per cup: 284 calories, 6 g protein

Turkey Tetrazzini

- 3 oz. Turkey, diced, cooked
- 1/3 cup mushroom
- 1/2 cup noodles, cooked
- Pinch onion powder
- 2/3 cup chicken broth
- Salt and pepper to taste

Blend until smooth.

Yields: 1 1/3 cup

Per serving: (1 1/3 cup) 285 calories, 32 g protein

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