

# About Your Mandibulectomy and Fibula Free Flap Reconstruction

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# About Your Surgery

This guide will help you prepare for your mandibulectomy surgery at Memorial Sloan Kettering (MSK), and help you understand what to expect after your surgery. Read through this guide at least once before your surgery and then use it as a reference in the days leading up to your surgery so that you can prepare. Bring this guide with you every time you come to MSK, including the day of your surgery, so that you and your healthcare team can refer to it throughout your care.

## Mandibulectomy and Free-flap Reconstruction

A mandibulectomy is a surgery to remove all or part of your jaw (mandible). You may have a mandibulectomy if you have a tumor involving your jaw.

Your jaw may be rebuilt using bone from another part of your body (the donor site). The bone may be taken from your fibula, which is the smaller of the 2 bones in your lower leg. An artery, vein, and soft tissue will also be removed with the bone. This is called a fibula free flap (see Figures 1).

The leg is the donor site that is most often used for jaw reconstructions. If your jaw is being rebuilt using bone from a different donor site or if bone will not be used in your reconstruction, your plastic surgeon will discuss this with you.

You may also need a skin graft to cover your donor site. A skin graft is made by taking the top layer of skin from one part of your body and moving it to the surgical site that needs to be covered. If a skin graft is needed, it will be removed from another area, usually the buttock or thigh. Your plastic surgeon will talk with you about the plan for your surgery.

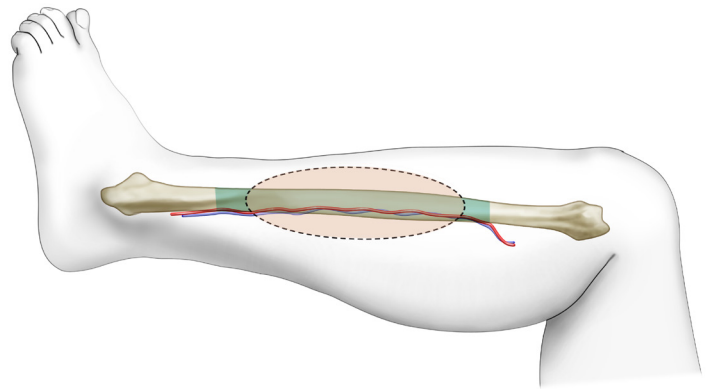


Figure 1. Fibula free flap

## Before Your Surgery

You will meet with your head and neck surgeon, your plastic surgeon, and your dentist. They will make sure it is safe for you to have surgery. They will also take computed tomography (CT) scan(s) and x-rays to assess the amount of tumor in your jaw. These will be used to make a model of your new jaw before surgery.

You may also have:

- Photographs taken of your face that will be used during the reconstruction.
- Scans that use special dye (angiograms), such as magnetic resonance (MR) or CT, of your donor site to evaluate the blood vessels in your donor site.

## During Your Surgery

Your surgery will be done by 3 surgical teams: a head and neck team, a plastics team, and dental team.

Your head and neck surgeon will remove the tumor from your jaw and the soft tissue around it. At the same time, your plastic surgeon will remove the bone, tissue, and skin from your donor site. This will take 3 to 4 hours. Your head and neck surgeon will send the tumor and surrounding tissue to the Pathology Department for testing. Once your head and neck surgeon has completed his or her part of the surgery, the reconstruction can be done.

Your plastic surgeon will transfer the tissue from your donor site to reconstruct your jaw. The bone from your donor site will be shaped to match, as closely as possible, the piece of your jaw that was removed. Once this is complete, your plastic surgeon will attach the artery and vein from the donor site to an artery and vein in your head and neck area. This is done under a microscope. He or she will fix the new jaw bone in place with plates and screws and cover it with the soft tissue. Your plastic surgeon will then place stitches in your face and neck to connect them to the soft tissue. The reconstructive part of the surgery usually takes 6 to 8 hours.

During your reconstruction, your dentist may place temporary arch bars and rubber bands in your mouth (see Figure 2). These will keep your teeth and jaw correctly aligned. Your dentist will remove the rubber bands 5 to 7 days after your surgery and the arch bars 14 days after your surgery.

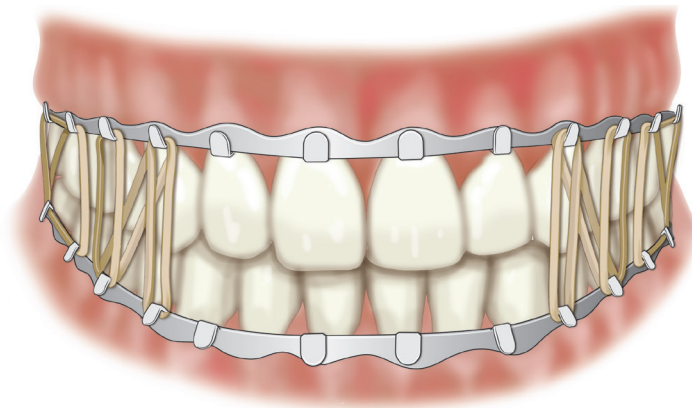


Figure 2. Arch bars and rubber bands

Mandibulectomy can cause swelling and difficulty breathing. To prevent this, a tracheostomy tube will be inserted into your trachea (windpipe) through an incision (surgical cut) in your neck, while you are still asleep. This will keep your airway open and make it easier for you to breathe.

Your surgery will also cause facial swelling, which will affect the way you eat, drink, and speak. This will slowly decrease as the area heals over several months. To help you get your nutrition, a nasogastric (NG) tube will be inserted during surgery. It goes through your nose and into your stomach. The NG tube will give you nutrients for the first 1 to 2 weeks while your jaw is healing. After your jaw has healed, the NG tube will be removed and you will gradually begin to eat and drink again. Your doctor will decide when it is safe to do so. How long this takes varies from person to person. It also depends on the extent of your surgery. Tell your healthcare team if you have any questions or concerns.

The information in this section will help you prepare for your surgery. Read through this section when your surgery is scheduled and refer to it as your surgery date gets closer. It contains important information about what you need to do before your surgery. Write down any questions you have and be sure to ask your doctor or nurse.

# Preparing for Your Surgery

You and your healthcare team will work together to prepare for your surgery.

## About Drinking Alcohol

The amount of alcohol you drink can affect you during and after your surgery. It is important that you talk with your healthcare providers about your alcohol intake so that we can plan your care.

- Stopping alcohol suddenly can cause seizures, delirium, and death. If we know you are at risk for these complications, we can prescribe medication to help prevent them.
- If you drink alcohol regularly, you may be at risk for other complications during and after surgery. These include bleeding, infections, heart problems, greater dependence on nursing care, and longer hospital stay.

Here are things you can do to prevent problems before your surgery:

- Be honest with your healthcare provider about how much alcohol you drink.
- Try to stop drinking alcohol once your surgery is planned. If you develop a headache, nausea, increased anxiety, or cannot sleep after you stop drinking, tell your doctor right away. These are early signs of alcohol withdrawal and can be treated.
- Tell your healthcare provider if you cannot stop drinking.
- Ask us any questions you have about drinking and surgery. As always, all of your treatment information will be kept confidential.

Help us keep you safe during your surgery by telling us if any of the following statements apply to you, even if you aren't sure.

- I take a blood thinner. Some examples are heparin, warfarin (Coumadin®), clopidogrel (Plavix®), enoxaparin (Lovenox®), and tinzaparin (Innohep®). There are others, so be sure your doctor knows all the medications you're taking.
- I take prescription medications.
- I take any over-the-counter medications, herbs, vitamins, minerals, or natural or home remedies.
- I have a pacemaker, automatic implantable cardioverter-defibrillator (AICD), or other heart device.
- I have sleep apnea.
- I have had a problem with anesthesia in the past.
- I have allergies, including to latex.
- I am not willing to receive a blood transfusion.
- I drink alcohol.
- I smoke.
- I use recreational drugs.

## About Smoking

People who smoke can have breathing problems and a higher risk of getting an infection when they have surgery. Smoking also slows wound healing and increases the chance of problems with your reconstruction. Stopping even for a few days before surgery can help. If you smoke, your nurse will refer you to our Tobacco Treatment Program. You can also reach the program at 212-610-0507.

## About Sleep Apnea

Sleep apnea is a common breathing disorder that causes a person to stop breathing for short periods while sleeping. The most common type is obstructive sleep apnea (OSA). This means that the airway becomes completely blocked during sleep, so no air can get through. OSA can cause serious problems when you have surgery. Please tell us if you have sleep apnea or if you think you might have it. If you use a breathing machine (such as a CPAP) for sleep apnea, bring it with you the day of your surgery.

## Within **30** Days of Your Surgery

### Presurgical Testing

Before your surgery, you will be given an appointment for presurgical testing (PST). The date, time, and location of your PST appointment will be printed on the appointment reminder from your surgeon's office.

You can eat and take your usual medications the day of your PST appointment. During your appointment, you will meet with a nurse practitioner who works closely with anesthesiology staff (doctors and specialized nurses who will be giving you medication to put you to sleep during your surgery). He or she will review your medical and surgical history with you. You will have tests, including an electrocardiogram (EKG) to check your heart rhythm, a chest x-ray, blood tests, and any other tests necessary to plan your care. Your nurse practitioner may also recommend you see other healthcare providers.

Your nurse practitioner will talk with you about which medications you should take the morning of your surgery. To help you remember, we've left space for you to write these medications down on page 10 of this guide.

It is very helpful if you bring the following with you to your PST appointment:

- A list of all the medications you are taking, including patches and creams.
- Results of any tests done outside of MSK, such as a cardiac stress test, echocardiogram (echo), or carotid doppler study.
- The name(s) and telephone number(s) of your doctor(s).

Use the space below to write in any notes about your PST appointment.

Notes \_\_\_\_\_

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## Complete a Health Care Proxy Form

If you haven't already completed a Health Care Proxy form, we recommend you complete one now. A health care proxy is a legal document that identifies the person who will speak for you if you are unable to communicate for yourself. The person you identify is called your health care agent. If you are interested in completing a Health Care Proxy form, talk with your nurse. If you have completed one already, or if you have any other advanced directive, bring it with you to your next appointment.

## Exercise

Try to do aerobic exercise every day, such as walking at least 1 mile, swimming, or biking. If it is cold outside, use stairs in your home or go to a mall or shopping market. Walking will help your body get into its best condition for your surgery and make your recovery faster and easier.

## Eat a Healthy Diet

You should eat a well-balanced, healthy diet before your surgery. If you need help with your diet talk to your doctor or nurse about meeting with a dietitian.

# 10 Days Before Your Surgery

## Review Your Medications

If you take vitamin E, stop taking it 10 days before your surgery. If you take aspirin, ask your surgeon whether you should continue. Medications such as aspirin, medications that contain aspirin, and vitamin E can cause bleeding. For more information, please read *Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)*, located in this section.

## Purchase Hibiclens® Skin Cleanser

Hibiclens is a skin cleanser that kills germs for 6 hours after using it. Showering with Hibiclens before surgery will help reduce your risk of infection after surgery. Hibiclens is available at your local pharmacy without a prescription.

# 7 Days Before Your Surgery

## Stop Taking Herbal Remedies and Supplements

Stop taking herbal remedies or supplements 7 days before your surgery. If you take a multivitamin, talk with your doctor or nurse about whether you should continue. For more information, please read *Herbal Remedies and Cancer Treatment*, located in this section.



## Watch a Virtual Tour

This video will give you an idea of what to expect when you come to Memorial Sloan Kettering's main hospital on the day of your surgery.

 [www.mskcc.org/pe/day-your-surgery](http://www.mskcc.org/pe/day-your-surgery)

## 2 Days Before Your Surgery

Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (e.g., Advil®, Motrin®) and naproxen (e.g. Aleve®). These medications can cause bleeding. For more information, please read *Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)*, located in this section.

## 1 Day Before Your Surgery

### Note the Time of Your Surgery

A clerk from the Admitting Office will call you after 2:00 PM the day before your surgery. He or she will tell you what time you should arrive at the hospital for your surgery. If you are scheduled for surgery on a Monday, you will be called on the Friday before. If you do not receive a call by 7:00 PM, please call 212-639-5014.



Use this area to write in information when the clerk calls:

Date: \_\_\_\_\_ Time: \_\_\_\_\_

On the day of your surgery, go to the Presurgical Center (PSC) at MSK's main hospital.

Presurgical Center (PSC)  
1275 York Avenue (between East 67<sup>th</sup> and East 68<sup>th</sup> Streets)  
New York, NY 10065  
B elevator to 6<sup>th</sup> Floor

### Shower With Hibiclens

The night before your surgery, shower using the Hibiclens solution. To use Hibiclens, open the bottle and pour some solution into your hand or a washcloth. Rub it gently over your body from your neck down and rinse. Do not let the solution get into your eyes, ears, mouth, or genital area. Do not use any other soap. Dry yourself off with a clean towel after your shower.

### Sleep

Go to bed early and get a full night's sleep.



**Do not eat or drink anything after midnight the night before your surgery. This includes water, hard candy, and gum. Take any medication as instructed with a sip of water.**

# Morning of Your Surgery

## Shower With Hibiclens

Shower using Hibiclens just before you leave for the hospital. Use the Hibiclens the same way you did the night before. Do not use any other soap. Do not put on any lotion, cream, powder, deodorant, makeup, or perfume after your shower.

## Take Your Medications

If your doctor or nurse practitioner instructed you to take certain medications the morning of your surgery, take only those medications with a sip of water. Depending on what medications you take and the surgery you're having, this may be all, some, or none of your usual morning medications.

Medication	Dose	Doctor/Nurse
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Medication	Dose	Doctor/Nurse
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Medication	Dose	Doctor/Nurse
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Medication	Dose	Doctor/Nurse
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**Do not eat or drink anything the morning of your surgery. This includes water, hard candy, and gum. Take any medication as instructed with a sip of water.**

## Things to Remember

- Do not put on any lotions, creams, deodorants, makeup, powders, or perfumes.
- Do not wear any metal objects. Remove all jewelry, including body piercings. The equipment used during your surgery can cause burns if it touches metal.
- Leave valuables, such as credit cards, jewelry, or your checkbook at home.
- Before you are taken into the operating room, you will need to remove your eyeglasses, hearing aids, dentures, prosthetic device(s), wig, and religious articles, such as a rosary.
- If you wear contact lenses, wear your glasses instead.
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## What to Bring

- Only the money you may need for a newspaper, bus, taxi, or parking.
- Your portable music player, if you choose. However, someone will need to hold this item for you when you go into surgery.
- Your breathing machine for sleep apnea (such as your CPAP), if you have one.
- If you have a case for your personal items, such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, and religious articles such as a rosary, bring it with you.
- Your Health Care Proxy form, if you have completed one.
- This guide. Your healthcare team will use this guide to teach you how to care for yourself after your surgery.
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## Parking When You Arrive

Parking at MSK is available in the garage on East 66<sup>th</sup> Street between York and First Avenues. To reach the garage, enter East 66<sup>th</sup> Street from York Avenue. The garage is located about a quarter of a block in from York Avenue, on the right-hand (north) side of the street. There is a pedestrian tunnel that connects the garage to the hospital. If you have questions about prices, call 212-639-2338.

There are also other garages located on East 69<sup>th</sup> Street between First and Second Avenues, East 67<sup>th</sup> Street between York and First Avenues, and East 65<sup>th</sup> Street between First and Second Avenues.

## Once You're in the Hospital

You will be asked to state and spell your name and date of birth many times. This is for your safety. People with the same or similar name may be having surgery on the same day.

## Get Dressed for Surgery

You will be given a hospital gown, robe, and nonskid socks.



P = Parking  
M = Memorial Sloan Kettering

## Meet With Your Nurse

Your nurse will meet with you before your surgery. Tell him or her the dose of any medications (including patches and creams) you took after midnight and the time you took them.

## Meet With Your Anesthesiologist

He or she will:

- Review your medical history with you.
- Talk with you about your comfort and safety during your surgery.
- Talk with you about the kind of anesthesia you will receive.
- Answer any questions you may have about your anesthesia.

## Prepare for Surgery

Once your nurse has seen you, 1 or 2 visitors can keep you company as you wait for your surgery to begin. When it is time for your surgery, your visitor(s) will be shown to the waiting area. Your visitors should read *Information for Family and Friends for the Day of Surgery*, located in this section.

You will walk into the operating room or you can be taken in on a stretcher. A member of the operating room team will help you onto the operating bed. Compression boots will be placed on your lower legs. These gently inflate and deflate to help circulation in your legs.

Your anesthesiologist will place an intravenous (IV) line into a vein, usually in your arm or hand. The IV line will be used to give you fluids and anesthesia (medication to make you sleep) during your surgery.

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# Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)

This information will help you identify medications that contain aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs). It's important to stop these medications before many cancer treatments.

Medications such as aspirin and other NSAIDs, vitamin E, and COX-2 inhibitors can increase your risk of bleeding during cancer treatment. These medications affect your platelets, which are blood cells that clot to prevent bleeding. If you take aspirin or other NSAIDs, vitamin E, or a COX-2 inhibitor such as celecoxib (Celebrex<sup>®</sup>), tell your doctor or nurse. He or she will tell you if you need to stop taking these medications before your treatment. You will also find instructions in the information about the treatment you're having.

## **If you're having surgery:**

- Stop taking medications that contain aspirin or vitamin E 10 days before your surgery or as directed by your doctor. If you take aspirin because you've had a problem with your heart or you've had a stroke, be sure to talk with your doctor before you stop taking it.
- Stop taking NSAIDs 48 hours before your surgery or as directed by your doctor.
- Ask your doctor if you should continue taking a COX-2 inhibitor.

## **If you're having a procedure in Radiology (including Interventional Radiology, Interventional Mammography, and General Radiology):**

- If you take aspirin because you've had a problem with your heart or you've had a stroke, be sure to talk with your doctor before you stop taking it. If your doctor instructs you to stop taking aspirin, you should stop 5 days before your procedure or as directed by your doctor.
- Stop taking NSAIDs 24 hours before your procedure.
- Stop taking medications that contain vitamin E 10 days before your procedure, or as directed by your doctor.

**Chemotherapy can decrease your platelet count, which can increase your risk of bleeding. Whether you're just starting chemotherapy or you've been receiving it, talk with your doctor or nurse before taking aspirin or NSAIDs.**

Medications are often called by their brand name, which can make it difficult to know their ingredients. To help you identify medications that contain aspirin, other NSAIDs, and vitamin E, please review the list of common medications in this leaflet. While this list includes the most common products, there are others. Please check with your healthcare provider if you aren't sure. Always be sure your doctor knows all the medications you're taking, both prescription and over-the-counter.

**The following common medications contain aspirin:**

Alka Seltzer®	Cama® Arthritis Pain Reliever	Genprin®	Roxiprin®
Anacin®	COPE®	Gensan®	Saleto®
Arthritis Pain Formula	Dasin®	Heartline®	Salocol®
Arthritis Foundation Pain Reliever®	Easprin®	Headrin®	Sodol®
ASA Enseals®	Ecotrin (most formulations)	Isollyl®	Soma® Compound Tablets
ASA Suppositories®	Empirin® Aspirin (most formulations)	Lanorinal®	Soma Compound with Codeine Tablets
Ascriptin® and Ascriptin A/D	Epromate®	Lortab® ASA Tablets	St. Joseph® Adult Chewable Aspirin
Aspergum®	Equagesic Tablets	Magnaprin®	Supac®
Asprimox®	Equazine®	Marnal®	Synalgos® DC Capsules
Axotal®	Excedrin® Extra-Strength Analgesic Tablets and Caplets	Micrainin®	Tenol-Plus®
Azdone®	Excedrin Migraine	Momentum®	Trigesic®
Bayer® (most formulations)	Fiorgen®	Norgesic Forte® (most formulations)	Talwin® Compound
BC® Powder and Cold Formulations	Fiorinal® (most formulations)	Norwich® Aspirin	Vanquish® Analgesic Caplets
Bufferin® (most formulations)	Fiortal®	PAC® Analgesic Tablets	Wesprin® Buffered
Buffets II®	Gelpirin®	Orphengesic®	Zee-Seltzer®
Buffex®		Painaid®	ZORprin®
		Panasal®	
		Percodan® Tablets	
		Persistin®	
		Robaxisal® Tablets	

**The following common medications are NSAIDs that do not contain aspirin:**

Advil®	Children's Motrin®	Indomethacin	Mobic®	Piroxicam
Advil Migraine	Clinoril®	Indocin®	Motrin	Ponstel®
Aleve®	Daypro®	Ketoprofen	Nabumetone	Relafen®
Anaprox DS®	Diclofenac	Ketorolac	Nalfon®	Saleto 200
Ansaid®	Etodolac®	Lodine®	Naproxen	Sulindac
Arthrotec®	Feldene®	Meclofenamate	Naprosyn®	Toradol®
Bayer Select Pain Relief Formula Caplets	Fenoprofen	Mefenamic Acid	Nuprin®	Voltaren®
Celebrex	Flurbiprofen	Meloxicam	Orudis®	
	Genpril®	Menadol®	Oxaprozin	
	Ibuprofen	Midol®	PediaCare Fever®	

**Most multivitamins contain vitamin E, so if you take a multivitamin be sure to check the label. The following products contain vitamin E:**

Amino-Opt-E	Aquavit	E-400 IU	E complex-600
Aquasol E	D'alpha E	E-1000 IU Softgels	Vita-Plus E

**bleeding. The following common medications contain acetaminophen; those in bold require a prescription:**

Acephen®  
**Aceta® with Codeine**  
**Acetaminophen**  
**with Codeine**  
Aspirin-Free Anacin  
Arthritis Pain Formula  
Aspirin-Free  
**Darvocet-N 100®**

Datril®  
**Di-Gesic®**  
Esgic®  
Excedrin P.M.  
**Fiorcet®**  
**Lorcet®**  
**Lortab**  
Naldegescic®

**Norco®**  
Panadol®  
**Percocet®**  
**Repan**  
**Roxicet®**  
Talacen®  
Temptra®  
Tylenol

**Tylenol with**  
**Codeine No. 3**  
Vanquish  
**Vicodin®**  
**Wygesic®**  
**Zydone®**

 **Read the labels on all your medications.**

Acetaminophen (Tylenol) is a very common ingredient found in over-the-counter and prescription medications. It's often an ingredient in pain relievers, fever reducers, sleep aids, and cough, cold, and allergy medications. The full name acetaminophen is not always written out, so look for these common abbreviations, especially on prescription pain relievers: APAP, AC, Acetaminoph, Acetaminop, Acetamin, and Acetam.

Acetaminophen is safe when used as directed, but there is a limit to how much you can take in 1 day. It's possible to take too much acetaminophen without knowing because it's in many different medications, so always read and follow the label on the product you are taking. Do not take more than 1 medication at a time that contains acetaminophen without talking with a member of your healthcare team.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at \_\_\_\_\_ . After 5:00 PM, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call 212-639-2000.



# Herbal Remedies and Cancer Treatment

One week before you have surgery or start chemotherapy or radiation therapy, you must stop taking any herbal or botanical home remedies or other dietary supplements because they can:

- Interact with your other medications.
- Increase or lower your blood pressure.
- Thin your blood and increase your risk of bleeding.
- Make radiation therapy less effective.
- Lower the effects of medications that weaken the immune system.
- Increase the effects of sedation or anesthesia (medications to make you sleepy).

## Common Herbs and Their Effects

### Echinacea

- Can cause an allergic reaction, such as a rash or difficulty breathing.
- Can lower the effect of medications used to weaken the immune system.

### Garlic

- Can lower your blood pressure, fat, and cholesterol levels.
- Can increase your risk of bleeding.

### Ginkgo (also known as *Ginkgo biloba*)

- Can increase your risk of bleeding.

### Ginseng

- Can act as a stimulant, which can decrease the effects of anesthesia or



sedation (medications to make you sleepy).

- Can increase your risk of bleeding.
- Can lower your blood glucose (sugar) level.

### **Turmeric**

- Can make chemotherapy less effective.

### **St. John's Wort**

- Can interact with medications given during surgery.
- Can make your skin more sensitive to radiation or laser treatment.

### **Valerian**

- Can increase the effects of anesthesia or sedation (medications to make you sleepy).

### **Herbal formulas**

- Many herbal formulas contain different herbs. We don't know their side effects. You must also stop taking these products 1 week before and during treatment.

For more information about herbs and botanicals, visit the About Herbs, Botanicals & Other Products website at [mskcc.org/aboutherbs](http://mskcc.org/aboutherbs).

You can also download the Memorial Sloan Kettering About Herbs app from the Apple App Store at [itunes.apple.com/us/app/about-herbs/id554267162?mt=8](https://itunes.apple.com/us/app/about-herbs/id554267162?mt=8).

This information does not cover all possible side effects. Please share any questions or concerns with your healthcare provider.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at \_\_\_\_\_. After 5:00 PM, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call 212-639-2000.

# Information for Family and Friends for the Day of Surgery

This information explains what to expect on the day your friend or family member is having surgery at Memorial Sloan Kettering (MSK).

## **Before the Surgery**

After arriving at the hospital, the patient will be asked to provide contact information for the person who will be meeting with the surgeon after the surgery. This is the same person who will get updates from the nurse liaison during the surgery. If the patient is having an outpatient procedure, he or she will also be asked to provide contact information for the person who will be taking them home.

Once the patient is checked in, he or she will go to the Presurgical Center (PSC) to be examined before surgery. One person can come along, but other visitors should wait in the waiting area. If the patient wishes, other visitors may join him or her when the nurse has finished the exam.

When the operating room (OR) is ready, the surgical team will take the patient there. They will prepare the patient for surgery, which can take 15 to 90 minutes. Then, the surgery will begin.

Please remember the following:

- Do not bring food or drinks into the waiting area or the PSC. Patients are not allowed to eat before their surgery or procedure.
- Our patients are at high risk for infection. Please do not visit if you have any cold or flu symptoms (fever, sneezing, sniffles, or a cough). We may ask you to wear a mask if there are any concerns about your health.
- If the patient brought any valuables, such as a cell phone, iPod, iPad, etc., please keep them safe for him or her during surgery.

- Sometimes, surgeries are delayed. We make every effort to tell you when this happens.

## **During the Surgery**

After the patient is taken to the OR, please wait in the main lobby on the 1<sup>st</sup> floor. While you are waiting, here are some things you can do:

- Food and drinks are available on the 1<sup>st</sup> floor in the cafeteria and in the gift shop. You can also bring your own food and eat it in the cafeteria.
- The coat-check room is located at the bottom of the escalator on the ground level. It is open Monday through Friday from 11:00 AM to 4:00 PM.
- Wireless Internet access is available in most areas of the hospital. You can also use the computers in the rooms off the main lobby.
- Please be courteous and mindful of others while using your cell phone. Use the designated area to accept and make calls on your cell phone. It may be useful to bring your phone charger to the hospital.
- The Mary French Rockefeller All Faith Chapel is an interfaith chapel located in room M106 near the main lobby on the 1<sup>st</sup> floor. It is open at all times for meditation and prayer.
- The Patient Recreation Pavilion is open daily from 9:00 AM to 8:00 PM for patients and their visitors. Children are allowed in the pavilion as long as they are supervised by an adult. Arts and crafts, a library, an outdoor terrace, and scheduled entertainment events are available in this area. To get to the pavilion, take the M elevators to the 15<sup>th</sup> floor.

## **Surgery updates**

A nurse liaison will keep you updated on the progress of surgery. He or she will:

- Give you information about the patient.
- Prepare you for your meeting with the surgeon.
- Prepare you for visiting the patient in the Post Anesthesia Care Unit (PACU).

To contact the nurse liaison:

- From inside the hospital, use a hospital courtesy phone. Dial 2000 and ask for beeper 9000. Please be patient; this can take up to 2 minutes.
- From outside of the hospital, call 212-639-2000. Ask for beeper 9000.
- You can also ask the information desk staff to contact the nurse liaison for you.

## **After the Surgery**

### **Meeting with the surgeon**

When the patient's surgery is completed, we will call you and ask you to return to the concierge desk to tell you where to go to meet with the surgeon.

After you have met with the surgeon, return to the concierge desk and tell them that you have finished your consultation.

### **Visiting the patient in the PACU**

After surgery, the patient will be taken to the PACU. It can take up to 90 minutes before the patient is ready to have visitors. You can use this time to take a walk or just relax in the waiting area until the patient is ready to see you.

When the patient is able to have visitors, a staff member will take you to the PACU. Please remember that only a limited number of visitors can go into the PACU. This is to keep the area quiet and avoid overcrowding. The patients in the PACU need time for rest and nursing care after surgery.

#### *While visiting in the PACU*

- Silence your cell phone.
- Apply an alcohol-based hand sanitizer (such as Purell®) before entering. There are hand sanitizer stations located throughout the hospital.
- Speak quietly.
- Respect other patients' privacy by staying at the bedside of your friend or family member.
- Do not bring food or flowers into the PACU.
- If any PACU patient needs special nursing attention, we may ask you to leave or to delay your visit.

After your visit, the nurse will escort you back from the PACU. He or she will update you on the patient's condition. He or she will also explain the plan of care for the patient, such as whether the patient is staying overnight and when he or she will be moved to an inpatient room. If the patient is going home the same day, a responsible adult must take him or her home.

We will give you a card with the PACU phone number. Please appoint one person to call for updates.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at \_\_\_\_\_. After 5:00 PM, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call 212-639-2000.

The information in this section will tell you what to expect after your surgery, both during your hospital stay and after you leave the hospital. You will learn how to safely recover from your surgery. Write down any questions you have and be sure to ask your doctor or nurse.

# What to Expect

When you wake up after your surgery, you will be taken to the Post Anesthesia Recovery Unit (PACU). Your visitors can visit you in the PACU after your surgery. You will stay in the PACU overnight so that your nurses can closely monitor your flap for 12 hours after your surgery.

You may not be able to open your mouth because of the rubber bands. You will not be able to talk because a tracheostomy tube will be in your windpipe. Your nurses will ask you “yes” or “no” questions about how you feel. You will be given an iPad to help you answer these questions. A dry erase board will also be available for you to write down what you need.

You will have tubes, drains, catheters (thin, flexible tubes), and other medical devices, including:

- A humidifier collar placed over your tracheostomy tube. It will provide moist air to your lungs.
- An IV line through which you will receive fluids, antibiotics, pain medication, and anticoagulants to prevent blood clots.
- A urinary (Foley®) catheter to drain urine from your bladder. It will be removed 2 or 3 days after your surgery.
- Drains (small tubes) in your neck and your donor site to allow fluid to drain. They are removed when the drainage is less than 1 ounce in 24 hours.
- A feeding tube that goes through your nose into your stomach. This is called a nasogastric (NG) tube. You will get high-protein liquid feedings and some of your medications through this tube. You will not be able to eat and drink until the swelling from the surgery goes down.
- A cast, splint, sling, or wound VAC (a special dressing that applies suction to your wound to improve healing) may be placed on the donor site. It will be removed 5 to 7 days after your surgery. If you have a cast, splint, or sling, a dressing will be placed underneath it.
- Compression boots on 1 or both legs to help circulate blood to prevent blood clots. If your donor site was on one of your legs, that leg will not have a boot on it.

For the first week after your surgery, your doctors and nurses will monitor the blood supply to your jaw and nearby tissue. They will use a machine called a Doppler®. It is noisy, but painless. It will be used every hour for the first 2 days after your surgery. After 2 days, your doctor will decide how often the Doppler will be used. Your doctor and nurse will check that the flap feels warm to touch and appears similar in color to your surrounding skin.

It is very important to avoid pressure to your newly reconstructed jaw. You will not be able to use a pillow while in the hospital.

Your nurses and nursing assistants will care for your drains, tubes, and tracheostomy. As you begin to feel better, they will teach you how to do some of this care yourself.

## **Suctioning the Tracheostomy Tube**

When you cough and breathe deeply, mucus from your lungs and the back of your throat will come through your tracheostomy tube. This mucus will have to be suctioned. Your nurse will do this frequently during the first few days after your surgery. He or she will then teach you how to do it yourself. For more information, please read *Caring for Your Tracheostomy*, located in this section.



Once the swelling has decreased, you will have less mucus and the opening of the tracheostomy tube will be capped, so that you can breathe through your nose. If you are able to breathe normally and cough up mucus comfortably with the tracheostomy tube capped, the tracheostomy tube will be removed. If you go home with the tracheostomy tube in place, your nurse will teach you how to care for it. We will order a portable suctioning machine for you.

## **Nasogastric (NG) Tube Feedings**

Your nurse will give you tube feedings through your NG tube for the first 1 to 2 weeks. Once the swelling begins to go down, your NG tube will be removed and you will be given clear liquids to drink and then soft foods to eat. How quickly your diet progresses will depend on your healing.

## **Caring for Your Donor Site**

The leg is the donor site that is most often used for jaw reconstructions. If your jaw is being rebuilt using tissue from a different donor site, your nurse will tell you how to care for it.

You will stay in bed for the first 2 days after your surgery to help your leg heal. After 2 days, you can get out of bed and sit in a chair with your leg raised. It is important to keep your leg raised as much as possible for the first 3 weeks. This will help with the swelling and promote healing. Your doctor will tell you when you can begin walking again. You will need to use a walker at first, but you will be able to walk on your own over time.

During your hospital stay, your nurse will tell you how to care for your leg and skin graft, if you have one. When it is time to go home, he or she will give you specific instructions if you still need them.

## **Irrigating Your Mouth**

Starting 5 days after your surgery, or as soon as your rubber bands are removed, your nurse will begin irrigating (wetting) your mouth with salt water and baking soda. This helps keep your mouth clean and moist.

You will continue to irrigate your mouth after you leave the hospital. Do this 3 to 4 times a day, in the morning, after meals, and at bedtime. Your nurse will give you an irrigation kit to take home with you.

## **Preventing Trismus**

Trismus is a condition in which someone has difficulty opening their mouth. It can develop after surgery or radiation therapy. It is caused by soft tissue scarring or changes in the muscles around the jaw. You must do jaw exercises to prevent trismus. As soon as you are ready, your doctor or nurse will tell you how often to do them. For more information, read the resource *Trismus* located in this section.

## **Following a Puréed Diet**

Most people will need to follow a puréed diet after they are discharged. This means that foods have to be put through a blender or food processor. Your dietitian will go over this diet with you. Your diet will progress as healing takes place. For more information, see *Eating Guide for Puréed and Mechanical Soft Diets* located in this section.

# Commonly Asked Questions

## **How long will I be in the hospital?**

The length of time you are in hospital depends on the extent of the surgery and how quickly you recover. On average, most people stay for 10 to 14 days.

## **Will I have pain?**

You will have some pain after your surgery. Your doctor and nurse will ask you about your pain often and give you medication as needed. If your pain is not relieved, please tell your doctor or nurse. Your doctor will give you a prescription for pain medication before you leave the hospital.

## **Will I have pain when I am home?**

The length of time each person has pain or discomfort varies. Follow the guidelines below to manage your pain.

- Take your medications as directed and as needed.
- Call your doctor if the medication prescribed for you doesn't relieve your pain.
- Do not drive or drink alcohol while you are taking prescription pain medication.
- As your incisions heal, you will have less pain and need less pain medication. A mild pain reliever such as acetaminophen (Tylenol) or ibuprofen (Advil) will relieve aches and discomfort.
- Pain medication should help you as you resume your normal activities. Take enough medication to make sure you can gradually increase your activities. Pain medication is most effective 30 to 45 minutes after taking it.
- Keep track of when you take your pain medication. It will not be as effective if you allow your pain to increase. Taking it when your pain first begins is more effective than waiting for the pain to get worse.

## **How can I prevent constipation?**

Pain medication may cause constipation, but there are steps you can take to prevent it, including exercising if you can. Walking is an excellent form of exercise. Drink plenty of water.

If these methods do not help, talk with your doctor or nurse. He or she may recommend over-the-counter or prescription medication.

## **When will my stitches be removed?**

If you have stitches inside of your mouth, they will dissolve on their own and don't need to be removed.

Your doctor will remove the stitches in your face and neck approximately 2 weeks after your surgery. If you have had radiation therapy to your face or neck, the stitches may stay in place for 3 to 4 weeks.

### **How do I care for my incisions?**

- Do not apply direct heat or cold to the incisions. They may be numb and you can easily burn yourself.
- Do not use hot water bottles or heating pads. You should also avoid saunas and steam rooms.
- Do not shave over your incisions while your stitches are in place. If you shave your face or neck, use an electric shaver.
- Do not use perfume, cologne, after-shave, or perfumed moisturizers until your incisions are completely healed.
- Avoid sun exposure. Once your head and neck surgeon determines that your incisions are completely healed, you may use a PABA-free sunscreen, with an SPF of 30 or higher, on your incisions.

### **When can I shower?**

Your doctor or nurse will give you instructions on when you can shower.

### **When can I swim?**

You can swim when you've been told that your incisions are completely healed. Avoid hot tubs, baths and swimming pools until then.

### **When can I resume my normal activities?**

Your doctor or nurse will tell you when you can resume normal activities. This depends on the extent of your surgery and how quickly you recover.

### **When is it safe for me to drive?**

Your doctor or nurse will tell you when you may resume driving. This will depend on the extent of your surgery and how quickly you recover.

### **When can I exercise?**

Do not do strenuous exercise or lift any objects heavier than 5 pounds (2.3 kilograms) for 6 weeks. Talk with your doctor or nurse before resuming activities such as lifting and exercise.

### **When can I resume sexual activity?**

Your doctor will tell you when you can resume sexual activity.

### **What type of follow-up care will I receive after I leave the hospital?**

Both your head and neck surgeon and your plastic surgeon will need to see you after discharge. Call each surgeon's office to schedule your follow-up appointment. Write down any questions you have and bring them with you.

## When will I get my test results?

Your test results should be available 10 to 14 days after surgery. Your doctor will discuss them with you at your first follow-up appointment after your surgery.

## How can I cope with my feelings?

After surgery for a serious illness, you may have new and upsetting feelings. Many people say they felt weepy, sad, worried, nervous, irritable, or angry at one time or another. You may find that you cannot control some of these feelings. If this happens, it's a good idea to seek emotional support.

The first step in coping is to talk about how you feel. Family and friends can help. Your nurse, doctor, and social worker can reassure, support, and guide you. It is always a good idea to let these professionals know how you, your family, and your friends are feeling emotionally. Many resources are available to patients and their families. Whether you are in the hospital or at home, your nurses, doctors, and social workers are here to help you and your family and friends handle the emotional aspects of your illness.

## What if I have other questions?

If you have any questions or concerns, please talk with your doctor or nurse. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at the numbers listed below.

Doctor: \_\_\_\_\_ Telephone: \_\_\_\_\_

Nurse: \_\_\_\_\_ Telephone: \_\_\_\_\_

After 5:00 PM, during the weekend, and on holidays, please call 212-639-2000 and ask for the doctor on call for your doctor.



### Call your head and neck surgeon immediately if you have:

- A temperature of 100.4° F (38° C) or higher
- Increased discomfort, redness, or both around your incision line
- Skin around your incision line that is hot to the touch
- Drainage or accumulation of fluid from your incision site
- Shortness of breath
- New or increased swelling around your incision

# Caring for Your Tracheostomy

This information will help you care for your tracheostomy while you are in the hospital and at home.

## The Trachea

The trachea, or windpipe, is a part of your respiratory system. It is about 4 ½ inches long and lies in the front of your neck (see Figure 1). It extends from your larynx (voice box) to your lungs. The air you breathe passes from your nose or mouth into your larynx, then into your trachea, then into your lungs.

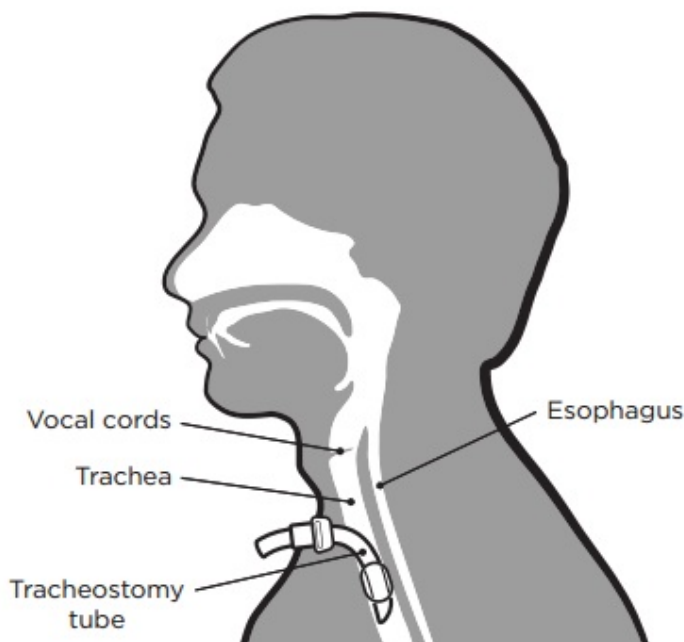


Figure 1: Placement of the tracheostomy tube

## Tracheostomy

A tracheostomy is a surgical opening that is made in your trachea to make breathing easier and to protect your airway. It may be performed if a tumor is blocking or narrowing your airway, or as part of a head and neck surgery if swelling from the surgery is expected.

You will be given anesthesia (medication to make you sleep) for the surgery.

Once you are asleep, your doctor will make an opening into your neck. He or she will insert a tracheostomy tube through the opening and into your trachea. This will allow you to breathe without difficulty.

Your nurse will teach you how to care for your tracheostomy while you are in the hospital. If you leave the hospital with the tracheostomy in place, you will continue to care for it at home. You will learn how to:

- Suction the tracheostomy tube
- Clean the suction catheter
- Clean the inner cannula
- Clean the skin around the tracheostomy site
- Moisturize the air you breathe

While the tracheostomy tube is in place, you will not be able to speak normally. You will be given a pen and paper so you can write down your needs and communicate. Many people can speak by covering the opening in the tube with a finger. Your nurse will teach you how to do this.

When you no longer need the tracheostomy tube, it will be removed and the opening will close on its own. You must keep a dressing on the site until the opening is completely closed. This usually takes about 1 to 2 weeks.

## **After Your Surgery**

### **Your recovery and daily activities**

Stay active after your surgery. This will help:

- Maintain your circulation.
- Maintain your muscle strength.
- Expand your lungs.
- Prevent complications, such as pneumonia and blood clots.

Get out of bed, bathe, and dress yourself. You should walk in the hallways with assistance, if needed. Your nurse will help you sit in a chair, bathe, and dress during the first day or so after surgery. As you feel stronger, you will be able to do more on your own. Doing activities will help you regain your strength more

quickly.

## **Suctioning the Tracheostomy Tube**

Suctioning the tracheostomy tube will keep your airway free of secretions and allow you to breathe without difficulty. Your nurse will teach you how and tell you how often to do this.

### **Equipment**

- A suction machine with plastic tubing
- A suction catheter
- A bowl with water
- A mirror
- Dry gauze

### **Instructions**

1. Gather your equipment.
2. Wash your hands thoroughly with soap and water or use an alcohol-based hand sanitizer.
3. Open the package with the suction catheter. Connect it to the plastic tubing of the suction machine.
4. Position the mirror so you can see the opening of the tracheostomy tube.
5. Turn on the suction machine. (If you are in the hospital, you must open the clamp on the suction tubing instead.)
6. Pinch the suction catheter between your thumb and forefinger to block the suction.
7. Cough deeply to bring up any secretions.
8. Keep the suction catheter pinched. Insert it about 3 to 5 inches into your tracheostomy tube.
9. Un-pinch the suction catheter to begin suctioning. **Do not keep the suction catheter in your trachea for longer than 10 seconds, or you may have shortness of breath.**

10. Using a rotating motion, take out the suction catheter. Rotating the catheter allows secretions on all sides of your trachea and tube to be suctioned.
11. Wipe off the secretions from the suction catheter with dry gauze.
12. Rinse the secretions from the suction catheter by suctioning the water through it.
13. Repeat the steps above as necessary.
14. If you need to repeat the suctioning more than 2 or 3 times, rest for a few minutes before doing it again.

## **Cleaning the Suction Catheter**

Each time you finish suctioning your tracheostomy tube, you must clean the suction catheter.

### **Equipment**

- A jar of Dakin's<sup>®</sup> solution or another antiseptic (if you are in the hospital)
- A clean, dry cloth or paper towel (if you are at home)
- A bowl with water

### **Instructions**

#### ***While you are in the hospital***

1. Gather your equipment.
2. Rinse the suction catheter with water and then suction more water through it.
3. Close the clamp.
4. Put the suction catheter into a jar of Dakin's<sup>®</sup> solution or another antiseptic fluid.

While you are in the hospital, a patient care technician will change the suction catheter each day.

#### ***When you are at home***



1. Gather your equipment.
2. Rinse the suction catheter with water and then suction more water through it.
3. Dry the suction catheter with the dry cloth or paper towel.
4. Disconnect the suction catheter from the plastic tubing on the suction machine.
5. Place the suction catheter on the dry cloth or paper towel.

While you are at home, change the suction catheter once a week, or more often if it becomes dirty or clogged.

Empty the secretions from the inside of the suction machine into the toilet. Do not empty them into the sink or the drain could become clogged.

Clean the canister of the suction machine as needed with soap and water.

## **Cleaning the Inner Cannula and the Skin Around the Tracheostomy Site**

Your tracheostomy tube has 2 pieces (see Figure 2):

- The outer cannula, which always stays in place. This keeps the tracheostomy site open. **Do not remove the outer cannula. Only your doctor or nurse should remove it.**
- The inner cannula, which slides in and out for cleaning. **Do not leave the inner cannula out for more than a few minutes.** It should always remain in place when not being cleaned.

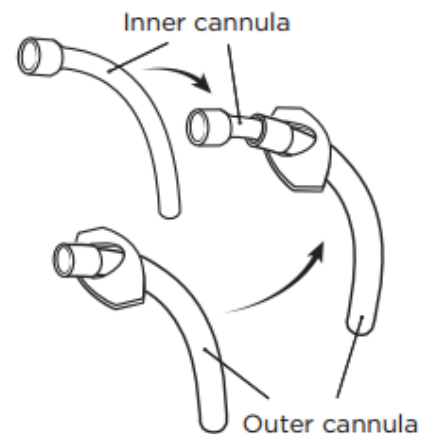


Figure 2: Inner and outer cannulas

Clean the inner cannula every 2 to 4 hours, or more often as needed, to keep it free of secretions. This will make it easier for you to breathe.

Do not start changing the tracheostomy tube ties that hold the tracheostomy tube in place until your doctor tells you it is safe to do so.

## Equipment

- Cotton swabs
- A mirror
- A nylon brush

## Instructions

1. Gather your equipment.
2. Wash your hands thoroughly with soap and water or use an alcohol-based hand sanitizer.
3. Stand or sit in front of a sink with a mirror.
4. With the fingers of one hand, hold the outer cannula in place. With the fingers of your other hand, unlock the inner cannula and slide it out (see Figure 3). **Do not keep the inner cannula out for more than a few minutes.**
5. Hold the inner cannula under warm running water. Clean it with the nylon brush (see Figure 4). Once the cannula is clean, shake out the excess water.



Figure 3: Unlocking the inner cannula

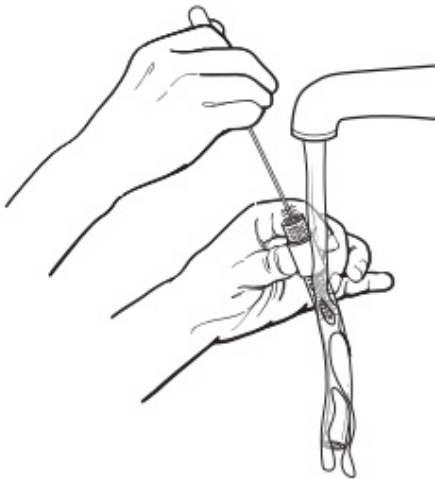


Figure 4: Cleaning the inner cannula

6. Slide the inner cannula back into the outer cannula right after you clean it. This will prevent the outer cannula from becoming blocked with secretions.
7. Gently clean the skin around your tracheostomy tube with moistened

cotton swabs.

If you will have a tracheostomy for an extended period of time, your doctor or nurse will change the entire tracheostomy tube during office visits. This includes the inner and outer cannulas and the tracheostomy tube ties that keep your tracheostomy tube in place. **Do not do this on your own since you may not be able to reinsert it into your trachea.**

## **Moisturizing the Air You Breathe**

Placing a moist piece of gauze in front of your tracheostomy tube will help filter, moisturize, and warm the air you breathe in. This will keep your secretions fluid and will make it easier to suction them and clean your trachea.

## **Equipment**

- One 4 x 4 piece of gauze
- Neck string
- Scissors

## **Instructions**

1. Gather your equipment.
2. Wash your hands thoroughly with soap and water or use an alcohol-based hand sanitizer.
3. Stand or sit in front of a sink with a mirror.
4. Moisten the 4 x 4 piece of gauze with water. Cut a piece of neck string that is long enough to fit comfortably around your neck.
5. Open the gauze and drape it over the neck string. Put the gauze in front of the tracheostomy tube opening (see Figure 5). Tie the neck string in a bow at the back of your neck to keep it in place.

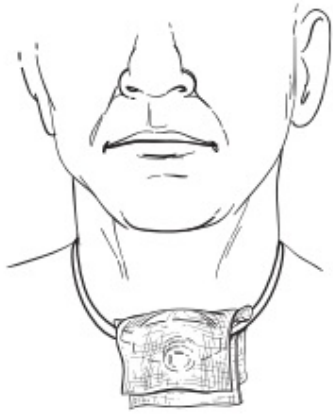


Figure 5: Moistened gauze placed over the tracheostomy tube opening

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## **Removal of the Tracheostomy Tube**

Your doctor will remove your tracheostomy tube when you no longer need it. You will not need to have surgery to do this. The opening will close on its own and you will not need stitches.

Before the tube is removed, a closed inner cannula will be inserted in your tracheostomy tube. If you are able to breathe normally with the closed inner cannula in place, your tube will be removed. You will not experience any pain when the tube is taken out.

After the tube is removed, your doctor will put a dressing over the tracheostomy site. When you cough or speak, put your finger over the tracheostomy site dressing. This will help the site to close.

Change the dressing over the tracheostomy site twice a day, or more often if it gets soiled. Each time you change the dressing, clean the skin at the site with moistened pieces of 4 x 4 gauze. Once the tracheostomy site is closed, you will not need to wear a dressing.

## **Important Points**

- Protect your airway at all times. Do not submerge yourself in water. You cannot go swimming while your tracheostomy tube is in place, or after the tube is removed until the site is completely closed. When showering, avoid having water spray or splash directly into the tracheostomy.
- Use a humidifier, especially at night. It will help to keep your secretions

loose and prevent clogging.

- **If you have trouble breathing, remove the inner cannula right away.** If your breathing improves, the inner cannula was most likely clogged. Clean the inner cannula well and reinsert it. **If your breathing does not get better, call 911 or go to the nearest emergency room immediately.**
- If the entire tracheostomy tube is removed by accident, do not panic. The tract will stay open for hours to days. **Call 911 or go to the nearest emergency room immediately to have it put back in.**

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at \_\_\_\_\_. After 5:00 PM, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call 212-639-2000.

# Trismus

This information will help you prevent trismus during and after your radiation therapy.

Your jaw is made up of a pair of bones that form the framework of your mouth and teeth (see Figure 1). Your upper jaw is called the maxilla and your lower jaw is called the mandible. Your mandible connects to your skull at the temporomandibular joint (TMJ).

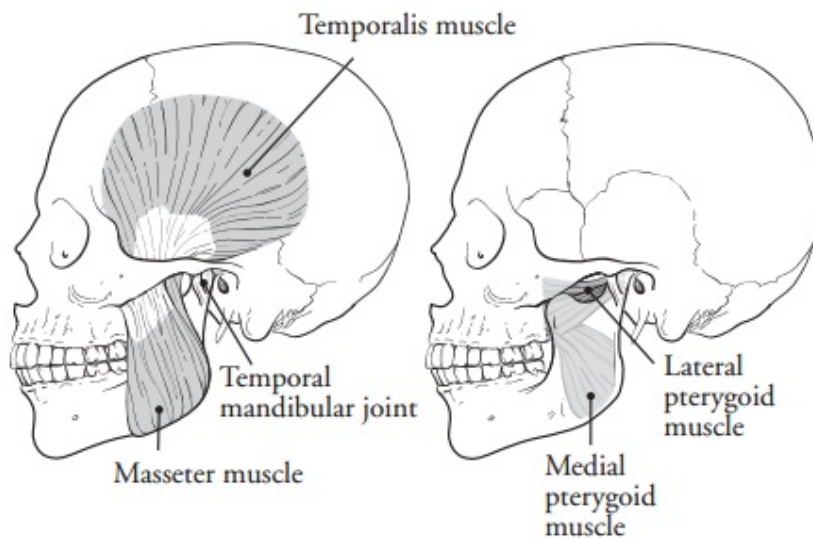


Figure 1

Many muscles and nerves around the jaw work together to open and close your mouth. Most people are able to open their mouth 35 to 55 millimeters, which is about the the width of 3 fingers (see Figure 2).



Figure 2

## **Trismus**

Trismus is a condition in which someone has difficulty opening their mouth.

Trismus can develop:

- If a tumor involves the muscles and nerves that open the mouth
- After surgery to the head and neck
- After radiation therapy to the head and neck

Surgery and radiation therapy can injure the tissues involved in opening the mouth. Fibrosis (scarring) can develop as the tissues begin to heal from surgery. Fibrosis can also build up years after radiation therapy. Muscle and other fibers shorten and tighten, which makes it harder to open your mouth. When you can't open your mouth well, it is hard for your doctor to examine this area. You may also have problems:

- Cleaning your mouth and teeth. This may lead to bad breath, cavities, and infections
- Chewing and swallowing. This can make it difficult for you to eat and drink
- Talking
- Kissing
- Having a breathing tube placed, if you ever need general anesthesia (medication to make you sleep during a surgery or procedure)
- Having routine dental treatment

Once trismus develops, it is very hard to treat. Prevention and early treatment are the goals.

## How to Prevent Trismus

There are 4 ways to help prevent trismus. Even if you don't have any symptoms, you should do the following to prevent problems:

- Massage your jaw muscles
- Exercise your jaw muscles
- Maintain good posture
- Maintain good oral hygiene

There are a number of exercises described below. During the exercises, breathe normally and do not hold your breath. If any of these exercises cause pain, numbness, or tingling, stop them right away and call your doctor or nurse. If you have had surgery, check with your doctor or nurse before you begin these exercises.

### Massage Your Jaw Muscles (Masseter Muscle)

Place your index and middle finger on your cheek bone. Run your fingers down over your masseter muscle, which ends at your bottom jaw (see Figure 3). As you move your fingers, find points that feel tender or tight. Massage these areas with your fingers in a circular direction for 30 seconds.

To keep your jaw muscles relaxed all the time, avoid clenching your jaw when stressed or out of habit.



Figure 3

### Exercise Your Jaw Muscles

Use a mirror for these exercises to help you do them correctly. These movements should give you a good stretch, but not cause pain.

#### Active range of motion and stretching exercises

Sit or stand. Hold your head still while doing these exercises.

- Open your mouth as wide as you can, until you can feel a good stretch but no pain. Hold this stretch for \_\_\_\_\_ seconds (see Figure 4).





Figure 4

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- Move your jaw to the left. Hold this stretch for 3 seconds (see Figure 5).



Figure 5

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- Move your jaw to the right. Hold this stretch for 3 seconds (see Figure 6).



Figure 6

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- Move your jaw in a circle. Make 5 circles in each direction.

### **Passive stretching exercise**

- Place 1 thumb on your top teeth in the middle of your jaw.
- Place the pointer (index) finger of your other hand on your bottom teeth, in the middle of your jaw.
- Open your mouth with your fingers, but do not bite down or resist. Let your fingers do all of the work. Hold this stretch for \_\_\_\_ seconds (see Figure 7).



Figure 7

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## Maintain Good Posture

Good posture means sitting and standing with your ears, shoulders, hips, knees, and ankles aligned. To maintain good posture, you need to keep your neck and shoulders strong and flexible (see Figure 8). The exercises listed below will help you do this. **Do these exercises twice a day.**



Figure 8

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### Neck stretch

Sit or stand with your arms at your side. Hold each stretch for 30 seconds.

1. Bend your head down (see Figure 9).



Figure 9

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2. Extend your head backwards (see Figure 10).



Figure 10

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3. Rotate your head to the right (see Figure 11).



Figure 11

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4. Rotate your head to the left (see Figure 12).



Figure 12

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5. Bring your left ear to your left shoulder (see Figure 13).



Figure 13

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6. Bring your right ear to your right shoulder (see Figure 14).



Figure 14

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### **Chin tuck**

1. Sit or stand with your arms at your side.
2. While looking forward, tuck your chin.
3. Pull your head back to line up your ears with your shoulders. Hold this position for 3 seconds.



Figure 15

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4. Do this exercise 10 times slowly (see Figure 15).

### **Shoulder blade pinch**

Sit or stand with your arms at your side. Tuck your chin, as described above. Pinch your shoulder blades together as tightly as possible. Hold this position for 3 seconds. Do this exercise 10 times slowly (see Figure 16).



Figure 16

### **Maintain Good Oral Hygiene**

- Brush your teeth and tongue after each meal and at bedtime.
- If you have removable dentures or a dental prosthesis, take it out and clean it each time you clean your mouth. Do not sleep with these devices in your mouth.
- Floss your teeth once daily at bedtime.

### **If You Develop Tightness When Opening Your Mouth**

Remember, trismus can occur anytime during, right after, or even years after your treatment. The earlier you start treatment for trismus, the easier it will be to restore your jaw function. If you notice any tightening in your jaw, call your doctor or nurse right away. They can refer you to:

- Speech/swallowing specialists and physical therapists. They can help you maintain and restore your ability to open your mouth. They use many techniques, such as exercise, stretching, and massage. They may also recommend special devices to help you open your mouth.

- Rehabilitation doctors. They will evaluate how well you can open your mouth. They may give you medication for pain or spasms or suggest other treatments to help you.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at \_\_\_\_\_. After 5:00 PM, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call 212-639-2000.

# Eating Guide for Puréed and Mechanical Soft Diets

This information explains what you can eat while you are on a puréed or mechanical soft diet. It includes steps you can take to make sure you eat well, even if you have problems chewing or swallowing. Eating well as part of a healthy lifestyle can help strengthen your body and increase your overall well-being. Sample menus and recipes are included.

Foods in puréed and mechanical soft diets have a smoother consistency than regular foods. They require very little or no chewing at all to swallow. You may need to be on a puréed or mechanical soft diet if you:

- Have trouble chewing or swallowing
- Had mouth surgery
- Have trouble moving or have lost feeling in parts of your mouth, such as your lips or tongue

A **puréed diet** is made up of foods that require no chewing, such as mashed potatoes and pudding. Other foods may be blended or strained to make them the right consistency. Liquids, such as broth, milk, juice, or water may be added to foods to make them the right consistency.

A **mechanical soft diet** is made up of foods that require less chewing than in a regular diet. People on this diet can tolerate a variety of consistencies. Chopped, ground, and puréed foods are included, as well as foods that break apart easily without a knife.

If you experience any of the following signs or symptoms during or after swallowing, you should contact your doctor and speech or swallowing therapist:

- Coughing
- Food particles lodging in your mouth or throat
- Breathing problems
- Wet voice or excessive phlegm
- Lung infection (pneumonia)

If you don't know which diet is right for you, or have any questions, speak with your doctor or speech or swallowing specialist. You can also speak with a dietitian in the Department of Food and Nutrition by calling 212-639-7071.

## Maintaining or Regaining Weight

Your caloric need is the number of calories you need every day to maintain your weight. Eating the number of calories your body needs can help prevent you from losing weight. Also, you can increase the number of calories if you need to gain weight.

Each person has a different caloric need. This need is based on:

- Age
- Sex

- Height and weight
- Level of physical activity

Generally, people who are older or less active have a lower caloric need. Your doctor and dietitian can help you find out your caloric need. However, the easiest way to check if you are eating enough is to watch your weight. Try to weigh yourself twice a week. If you are losing weight, write a list of all the foods that you eat. Do this for a few days. Have your dietitian look it over to see where you can add more calories. If you are eating less than usual or losing weight, please call your dietitian.

## Guide for Good Nutrition

Eat foods that have all the nutrients your body needs to keep you healthy. This includes:

- Proteins
- Carbohydrates
- Fats
- Fiber
- Vitamins and minerals

Also, make sure that you drink plenty of liquids. Your goal should be to drink 8 glasses of water a day. However, speak to your doctor or dietitian to find out if more or less liquid would be best for you.

## Protein

Protein helps your body build tissue and heal after surgery. Foods rich in protein include:

- Meats
- Fish
- Poultry (chicken, turkey)
- Milk, soy milk, non-fat dried milk powder
- Cheese
- Yogurt (especially Greek yogurt)
- Eggs or egg whites
- Beans or bean purée
- Nuts and nut butters
- Soy products such as tofu and edamame (soy beans)
- Liquid nutritional supplements such as Ensure<sup>®</sup>, Ensure Plus<sup>®</sup>, Boost<sup>®</sup>, or Boost Plus<sup>®</sup>

## Carbohydrates

Carbohydrates are starches and sugars. They should make up at least half of your caloric intake. Most of the carbohydrates in your diet should be complex carbohydrates (unprocessed starches that are rich in fiber), such as:

- Starchy vegetables (potatoes, green peas, squash)



- Whole grains (oatmeal, brown rice)
- Cereals
- Breads
- Pasta

These foods are considered “protein-sparing.” This means they can prevent your body from breaking down protein for energy. Your body can then use this protein to build tissue.

## **Fat**

Fat is the most concentrated source of calories. For example, 1 teaspoon of oil has 45 calories while 1 teaspoon of sugar has 20 calories. Fats are in:

- Meats
- Dairy
- Coconut and canned coconut milk or cream
- Nuts and nut butters
- Seeds
- Vegetable oils
- Avocados
- Olives
- Fried and sautéed foods
- Baked goods

Some fats are healthier for you than others. Unsaturated fats are healthier for you than saturated fats.

Unsaturated fats are found in:

- Olive oil
- Canola oil
- Peanut oil
- Fish oil
- Avocado

Saturated fats are found in:

- Meat
- Full-fat dairy products (whole milk, cheeses, heavy cream, cream cheese)
- Butter
- Coconut
- Palm oil

Eating too much fat can make you gain weight. If your goal is to gain weight, try to eat healthier (unsaturated) fats. If you are trying to lose weight, or are already at a healthy weight, choose low-fat foods when planning your meals.

## **Fiber**

There are 2 kinds of fiber: soluble and insoluble. Soluble fiber is found in barley, oats, and the flesh of skinless fresh fruits. Soluble fiber can help soften your stools and slow your digestion.

Insoluble fiber is found in the skins of fruits and vegetables, legumes (beans, lentils), seeds, and whole grains. It is not broken down in your intestines and adds bulk to your stool. This can help you have more regular bowel movements. Even if fruits and vegetables are blended or juiced, the fiber is still there if the pulp has not been removed. Getting enough of both kinds of fiber is important.

## **Vitamins and minerals**

Vitamins and minerals are found in all foods in different amounts. A person who eats a well-balanced diet will most likely not need a supplement. Your diet should include some of the following:

- Breads, grains, and cereals
- Fruits
- Vegetables
- Dairy products (milk, yogurt)
- Poultry, fish, and eggs
- Beans
- Seeds
- Nuts

Please speak with your doctor if you are thinking about taking a supplement.

## **Lactose**

Lactose is a sugar found in milk and milk products, such as yogurt, cheese, and ice cream. Many people can't tolerate lactose. It may cause them to have gas, cramping, or diarrhea. If this is a problem for you, it may keep you from having dairy items. Look in your supermarket dairy case for low-lactose or lactose-free milk and cheese products. Lactaid® is a brand that has several of these products. Many people are able to get nutrients from dairy products by eating cheese or yogurt. These foods have less amounts of lactose than milk or ice cream. You may also try the following non-dairy, lactose-free foods and beverages:

- Rice milk or cheese
- Soy products such as soy milk, cheese, and yogurt
- Almond products such as almond milk, cheese, or yogurt
- Tofu

## Adding More Calories and Protein to Your Diet

### Boosting your calorie count

If you need to eat more calories, here are some easy tips to boost the calorie count of your foods:

- Eat small, frequent meals or snacks. For example, if you are eating half as much as usual at each meal, you should be eating twice as often.
- Add 2 to 4 tablespoons of canned coconut milk or cream to smoothies, shakes, cereals, or yogurts for extra calories. You can also add it to rice or diced chicken for extra calories and flavor.
- Choose creamy soups rather than soups with clear broths.
- Have puddings and custards rather than gelatin desserts.
- Add sauces, gravies, or extra vegetable oil to your meals.
- Drink apricot or peach fruit nectars. They are less acidic than others.
- Drink fruit shakes or fruit smoothies made with yogurt or ice cream.
- Make ice cubes from milk or fruit nectar. Use these high-calorie ice cubes in smoothies or to keep your shakes cold. As they melt, they will add calories to your beverages.
- Drink high-calorie drinks, such as milkshakes, soy milkshakes, or pasteurized eggnog.
- Drink a liquid nutritional supplement such as Ensure instead of milk to make a nutritious, high-calorie milkshake.
- Add honey to smoothies, tea, yogurt, hot cereals, shakes, or ice cream.
- If you are **not** on a low-fat diet, add sour cream, half and half, heavy cream, or whole milk to your foods. You can add it to mashed potatoes, sauces, gravies, cereals, soups, and casseroles. Consider adding mayonnaise to your eggs, chicken, tuna, pasta, or potatoes to make a smooth, moist salad.
- Add avocado to dishes or smoothies.
- Add nut butters such as peanut butter to shakes and smoothies.

### Boosting your protein intake

If you need to increase the amount of protein in your diet, here are some easy tips:

- Add tofu to cooked vegetables, soups, smoothies, or in place of chicken or meat if you are having difficulty eating animal proteins.
- Add cooked eggs to your soups, broths, and cooked vegetables. Purée the cooked eggs if needed.
- Use plain Greek yogurt in smoothies, cream sauces, or wherever you would use sour cream for added protein.
- Add cheese (shredded or grated) to your soups, cooked eggs, vegetables, and starches. For example, adding full-fat ricotta cheese can moisten a dish, as well as add calories and protein. Add cottage cheese to smoothies, purées, or canned fruits.

- Use fortified milk (see recipe in the “Recipes” section) rather than regular milk to double the amount of protein in it. Use this milk in shakes, hot cereals, mashed potatoes, hot chocolate, or with instant puddings to create a high-protein, high-calorie dessert. Also, you can add non-fat dried milk powder alone to purées and smoothies to add more calories and protein.
- Grind some nuts with a coffee grinder and add to them to your smoothies, hot cereals, puddings, or yogurts.

## Liquid nutritional supplements

If your doctor or dietitian suggests that you drink high-calorie or high-protein liquid nutritional supplements, drink them between your meals. Try some of the products listed below. You can buy most of them at any super-market or pharmacy. If you don’t see them in the store, ask a pharmacist or store manager to order these products for you. You can also order them online.

Liquid Nutritional Supplement	Calories	Protein (g)	Water (mL)	Lactose Free
Ensure (8 ounces)	220	9	196	Yes
Ensure Active Clear™ (10 ounces)	180	9	274	Yes
Ensure Plus or Ensure Complete™ (8 ounces)	350	13	180	Yes
Glucerna® (8 ounces)	200	10	200	Yes
Boost (8 ounces)	240	10	200	Yes
Boost Plus (8 ounces)	360	14	185	Yes
Boost Glucose Control® (8 ounces)	190	16	200	Yes
Boost Nutritional Pudding (5 ounces)	240	7	140	Yes
Carnation Breakfast Essentials® Powder (1 packet)	130	5	NA	No
Carnation Breakfast Essentials Ready-to-Drink (11 ounces)	250	14	285	No
Boost VHC (8 ounces)	530	22.5	168	Yes
Scandishake® (1 packet)	440	5	NA	No
Scandishake Lactose Free (1 packet)	430	8	NA	Yes
Resource® Boost Breeze (8 ounces)	250	9	196	Yes
Enlive® (6.7 ounces)	200	7	166	Yes
Resource Benecalorie® (1.5 ounces)	330	7	NA	Yes
Resource Beneprotein® Instant Protein Powder (7 grams)	25	6	NA	Yes

NA=not applicable.

## Recommended foods

Below, you will find a list of recommended foods, as well as foods to avoid, while you are on a puréed or mechanical soft diet.

### Puréed Diet

Type of Food	Recommended	Excluded
Milk and Dairy Products	<ul style="list-style-type: none"> <li>• Milk, plain or well-blended yogurt without fruit pieces, buttermilk, evaporated or condensed milk, milkshakes, malts</li> <li>• Puréed cottage cheese, thin ricotta cheese, mild or processed cheeses melted into a sauce</li> <li>• Ice cream, frozen yogurt</li> <li>• Liquid nutritional supplements such as Ensure or Carnation Breakfast Essentials</li> </ul>	<ul style="list-style-type: none"> <li>• Solid cheeses, regular cottage cheese, farmer cheese, pot cheese</li> </ul>
Vegetables	<ul style="list-style-type: none"> <li>• Vegetable juices, puréed cooked vegetables, baby food vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• All others, even well-cooked vegetables that don't require a lot of chewing</li> </ul>
Fruits	<ul style="list-style-type: none"> <li>• Fruit juices and nectars</li> <li>• Smooth applesauce, puréed fruits, baby food fruit</li> </ul>	<ul style="list-style-type: none"> <li>• All others, including mashed banana and canned fruits</li> </ul>
Starches	<ul style="list-style-type: none"> <li>• Cooked cereals, Cream of Wheat<sup>®</sup>, Farina<sup>®</sup>, Cream of Rice<sup>®</sup>, oatmeal, hominy grits</li> <li>• Whipped or smooth mashed potatoes</li> <li>• Puréed pasta, puréed rice</li> </ul>	<ul style="list-style-type: none"> <li>• All others</li> </ul>
Meat or Meat Substitutes	<ul style="list-style-type: none"> <li>• Strained or puréed meat, fish, and poultry</li> <li>• Smooth egg salad, soufflés, hummus, or puréed beans</li> </ul>	<ul style="list-style-type: none"> <li>• All others, including scrambled, fried, poached, hard-boiled, or soft-boiled eggs</li> </ul>
Fats	<ul style="list-style-type: none"> <li>• Butter, margarine, sour cream, cooking fats and oils, gravies</li> <li>• Whipped toppings, heavy cream</li> </ul>	<ul style="list-style-type: none"> <li>• All others</li> </ul>
Soups	<ul style="list-style-type: none"> <li>• Broth, bouillon</li> <li>• Soups with puréed or strained vegetables</li> <li>• Strained or puréed cream soups</li> <li>• Puréed chicken noodle or chicken and rice soup</li> </ul>	<ul style="list-style-type: none"> <li>• All others</li> </ul>

<b>Type of Food</b>	<b>Recommended</b>	<b>Excluded</b>
Sweets and Desserts	<ul style="list-style-type: none"> <li>• Plain custards or puddings</li> <li>• Sherbet, ice cream, frozen yogurt</li> <li>• Jell-O®</li> <li>• Flavored fruit ices, popsicles, fruit whips, flavored gelatins</li> <li>• Clear jelly, honey, sugar, sugar substitutes</li> <li>• Chocolate syrup, maple syrup</li> </ul>	<ul style="list-style-type: none"> <li>• All others, including anything made with coconuts, nuts, or whole fruits (e.g., yogurt with fruit in it)</li> </ul>
Beverages	<ul style="list-style-type: none"> <li>• All beverages</li> </ul>	<ul style="list-style-type: none"> <li>• Any containing raw eggs</li> </ul>
Miscellaneous	<ul style="list-style-type: none"> <li>• Salt, pepper, ketchup, mustard, mayonnaise,</li> <li>• Herbs, spices</li> <li>• Syrups</li> </ul> <p>*Avoid spicy or acidic items if you have mouth soreness.</p>	<ul style="list-style-type: none"> <li>• Nuts, coconuts, olives, pickles, seeds</li> </ul>

### **Mechanical Soft Diet**

<b>Type of Food</b>	<b>Recommended</b>	<b>Excluded</b>
Milk and Dairy Products	<ul style="list-style-type: none"> <li>• Milk, buttermilk, eggnog, yogurt (plain and with fruit), milkshakes, evaporated and condensed milk, malts</li> <li>• Cottage cheese, soft cheeses like ricotta or farmer and pot cheese sauces, grated and shredded cheeses</li> <li>• Ice cream and frozen yogurt</li> <li>• Liquid nutritional supplements such as Ensure or Carnation Breakfast Essentials</li> </ul>	<ul style="list-style-type: none"> <li>• Hard cheeses</li> </ul>
Vegetables	<ul style="list-style-type: none"> <li>• Any well-cooked, diced vegetables, such as carrots, peas, green beans, beets, butternut or acorn squash, wax beans</li> <li>• Chopped or creamed spinach</li> <li>• Puréed vegetables, baby food vegetables</li> <li>• Vegetable juices</li> </ul>	<ul style="list-style-type: none"> <li>• Raw vegetables, stir-fried vegetables, fried vegetables, lettuce</li> </ul>

<b>Type of Food</b>	<b>Recommended</b>	<b>Excluded</b>
Fruits	<ul style="list-style-type: none"> <li>• Ripe bananas</li> <li>• Any canned fruits</li> <li>• Any cooked fruits without the skin (All must be mashed or diced into small pieces.)</li> <li>• Smooth applesauce, puréed fruits, baby food fruits</li> <li>• Nectars, fruit juices</li> </ul>	<ul style="list-style-type: none"> <li>• Fresh fruits, fruit skins, fruits with pits, dried fruits</li> </ul>
Starches	<ul style="list-style-type: none"> <li>• Any diced soft breads, such as soft rolls, muffins, soft French toast, pancakes</li> <li>• Cakes, pies without crusts, pastries without nuts or dried fruits, soft cookies</li> <li>• Dry cereals soaked in a small amount of milk</li> <li>• White or brown rice</li> <li>• Casseroles</li> <li>• Cooked cereals, Cream of Wheat, Farina, Cream of Rice, oatmeal, hominy grits, couscous</li> <li>• Diced soft pastas or noodles, pasta salad, pastina, orecchiette</li> <li>• Soft whole grains (i.e., barley, farro)</li> </ul>	<ul style="list-style-type: none"> <li>• Rye-crisps, dry crackers, popcorn, taco shells, Melba toasts</li> <li>• Breads and muffins with seeds or nuts, pita bread, rye and pumpernickel breads, bagels, French or sourdough breads, toast</li> <li>• Chow mein noodles</li> <li>• Any cakes or breads made with nuts, seeds, raisins, or dates</li> <li>• Kasha (buckwheat), wild rice, shredded wheat, granola</li> </ul>
Potato or Potato Substitutes	<ul style="list-style-type: none"> <li>• Mashed, baked, or creamed potatoes, sweet potatoes</li> </ul>	<ul style="list-style-type: none"> <li>• Hash browns, fried potatoes, potato skins, French fries</li> </ul>
Meat or Meat Substitutes	<ul style="list-style-type: none"> <li>• Ground, finely chopped tender meat or poultry with gravy</li> <li>• Soft chicken salad, creamed tuna salad without celery, egg salad without celery</li> <li>• Diced meat loaf, meatballs, salmon loaf, or croquettes</li> <li>• Casseroles</li> <li>• Diced baked or broiled fish (fillet of sole, roughy, flounder, salmon)</li> <li>• Well-cooked beans, tofu</li> <li>• Scrambled eggs or diced hard-cooked eggs</li> <li>• Plain cheese quiche</li> </ul>	<ul style="list-style-type: none"> <li>• Whole cuts or diced meat or poultry</li> <li>• Hot dogs, sausage, knockwurst, bratwurst, pork chops, steak, bacon</li> <li>• Fried fish, haddock, halibut, tuna</li> <li>• Crunchy peanut butter</li> <li>• Chili with beans</li> </ul>

<b>Type of Food</b>	<b>Recommended</b>	<b>Excluded</b>
Fats	<ul style="list-style-type: none"> <li>• Butter, margarine, cooking fats and oils</li> <li>• Gravy, whipped toppings, salad dressings, mayonnaise</li> <li>• Finely chopped olives</li> </ul>	<ul style="list-style-type: none"> <li>• Nuts, almonds, cashews, peanuts, pecans, seeds, coconuts, whole olives</li> </ul>
Soups	<ul style="list-style-type: none"> <li>• Broth, bouillon</li> <li>• Soups with puréed or strained vegetables, strained or puréed cream soups</li> <li>• Diced chicken noodle soup</li> </ul>	<ul style="list-style-type: none"> <li>• Any soups with chunks of meat or crunchy vegetables</li> </ul>
Sweets and Desserts	<ul style="list-style-type: none"> <li>• Seedless jellies only, honey, sugar, sugar substitutes, syrup</li> <li>• Ice cream, frozen yogurt, puddings, custards</li> <li>• Pies without crust, pastries and cakes without seeds or nuts, soft cookies (all diced)</li> </ul>	<ul style="list-style-type: none"> <li>• Any sweets and desserts with coconut, nuts, or dried fruits</li> <li>• Granola bars</li> <li>• Pies</li> <li>• Chewy, crunchy, or hard candy</li> <li>• Jelly or jam with seeds, preserves</li> <li>• Crunchy cookies</li> <li>• Licorice, taffy, caramel</li> </ul>
Beverages	<ul style="list-style-type: none"> <li>• Water, coffee, tea, carbonated beverages, hot cocoa, fruit punch, coconut water</li> <li>• Gatorade®, Pedialyte®, Isopure® lemonade without pulp</li> </ul>	<ul style="list-style-type: none"> <li>• Any beverage containing raw eggs</li> </ul>
Miscellaneous	<ul style="list-style-type: none"> <li>• Salt, pepper, ketchup, mustard, herbs, spices, jelly</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid spicy/acidic items if you have mouth soreness</li> </ul>

## Difficulties With Eating

During and after chemotherapy and radiation therapy, some people develop side effects that make it difficult to eat. Below, you will find recommendations to help with these side effects.

### Taste changes

You may find that the foods you once liked taste different during and after chemotherapy or radiation therapy. In the weeks after finishing chemotherapy, your taste should slowly return to normal. Your taste may take a little longer to return after radiation therapy. Try some of these tips to deal with taste changes:

- Experiment with different foods. You might find a new food that you like.
- Retry foods every week or 2 to see if the taste has returned.
- Substitute fish, eggs, cheese, or milk for meat. You may tolerate these foods better.
- Try different seasonings, including herbs and spices. Use salt if you are not on a low-salt diet.
- Adjust the sugar levels in the food to your taste.
- If the food you are eating tastes metallic, use plastic utensils or glassware for cooking.



- Try cold foods or foods at room temperature.
- Marinate your foods in fruit nectars, duck sauce, or citrus juice.
- Maintain good oral hygiene.

## **Sore mouth**

People who have had chemotherapy or radiation may have a sore mouth. If this is a problem for you, try these recommendations:

- Eat mild foods, such as milks, custards, or puddings.
- Your doctor can give you a mouth spray to control pain while you eat. Avoid foods that are acidic, such as orange juice and tomato sauce. Avoid foods that are spicy or salty. Also try to stay away from foods that are too hot or too cold.
- Liquid or soft foods such as soufflés or casseroles may be easier to swallow than solid foods. Experiment with consistencies to see what feels best.

## **Dry mouth**

Eating can be difficult if your mouth is dry and doesn't make enough saliva. Try these tips:

- Choose soft, moist foods.
- Add gravies, sauces, applesauce, or other liquids to your foods.
- Have a spoonful of warm soup or other liquid between mouthfuls of food.
- Try foods prepared with gelatin, such as mousses. They tend to slide down the throat more easily.
- Always carry a bottle of water with you. You can also try carrying a small, clean spray bottle filled with water. Spray water in your mouth throughout the day to keep it moist.
- Try eating sugar-free mints or sugar-free gum to make more saliva.
- If you are having trouble maintaining your weight, drink beverages that have calories instead of water. Examples are fruit juices, fruit nectars, and liquid nutritional supplements such as Ensure.

## Sample Menus

Everyone has his or her own way of eating. If you are used to eating 3 nutritious meals a day and can keep or regain your weight, you are doing fine. Many people find that it is easier to eat 6 or 7 small meals throughout the day. Below is a sample menu for both puréed and mechanical soft diets.

Meal or Snack	Puréed Diet	Mechanical Soft Diet
Breakfast	<ul style="list-style-type: none"> <li>• Puréed banana</li> <li>• Cooked cereal with milk</li> <li>• Puréed cooked egg</li> </ul>	<ul style="list-style-type: none"> <li>• Soft, diced fruit without skin or peel</li> <li>• Cereal softened in milk or diced soft pancake with syrup and butter</li> <li>• Scrambled eggs</li> </ul>
Mid-morning snack	<ul style="list-style-type: none"> <li>• Vanilla or flavored yogurt</li> </ul>	<ul style="list-style-type: none"> <li>• Rice pudding</li> </ul>
Lunch	<ul style="list-style-type: none"> <li>• Any puréed or strained soup</li> <li>• Puréed chicken salad</li> <li>• Puréed beans</li> <li>• Puréed fruit</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetable barley soup</li> <li>• Chicken salad or egg salad</li> <li>• Diced, well-cooked vegetables</li> <li>• Canned peaches</li> </ul>
Mid-afternoon Snack	<ul style="list-style-type: none"> <li>• Ensure Plus</li> </ul>	<ul style="list-style-type: none"> <li>• Boost Plus</li> </ul>
Dinner	<ul style="list-style-type: none"> <li>• Puréed or strained soup</li> <li>• Puréed meat or fish</li> <li>• Mashed potatoes</li> <li>• Puréed vegetables with olive oil or butter</li> <li>• Applesauce</li> </ul>	<ul style="list-style-type: none"> <li>• Soup</li> <li>• Baked fish filet (boneless) with sauce</li> <li>• Diced, soft potatoes</li> <li>• Diced, well-cooked vegetables with olive oil or butter</li> <li>• Canned, diced pears</li> </ul>
Evening Snack	<ul style="list-style-type: none"> <li>• Pudding</li> </ul>	<ul style="list-style-type: none"> <li>• Ice cream with diced, soft cookie</li> </ul>

These menus are suggestions. Feel free to substitute other foods for any of those listed. You may divide the foods throughout the day as you like. If you need help planning your meals, please call the Department of Food and Nutrition to speak with a dietitian.

## What to Look for When Shopping for Food

There are many products you can buy at the grocery store that need little or no preparation. Below is a list of recommended foods and where they can be found in the grocery store. If you are following a low-fat diet, use low-fat or reduced-fat versions of some of these foods.

If it is hard for you to shop, find a market that will deliver in your area. Also look into online grocers that deliver, such as Fresh Direct®. Ask your dietitian or social worker if you are eligible for a home meal delivery service such as Meals on Wheels or God's Love We Deliver. Many restaurants also offer delivery service.

## Dairy case

- All types of milk (whole, low-fat, or skim). Use lactose-free brands, if lactose is a problem for you.
- Buttermilk
- Pasteurized eggnog
- Non-dairy creamer (the powdered form in a jar does not need to be refrigerated)

- Cheeses, including cottage, farmers, ricotta, and Parmesan. Make sure the consistency is right for you.
- Sour cream
- Eggs or egg substitutes
- Butter and margarine
- Pudding
- Gelatin desserts
- Yogurt

## On the shelves

Canned foods are very convenient. They can be stored without refrigeration until they are opened. Some products are high in salt. If your doctor has told you to restrict your salt intake, always check the label on the can. Your dietitian can explain how to read food labels. Some foods can be eaten “as is,” but others must be ground or puréed. Make sure that the consistency of the food is right for you before you eat it.

The following packaged and canned foods don’t require much preparation and may be convenient for you:

- Baby foods come in many varieties, such as meats, fruits, and vegetables. Most are already puréed and ready to eat. While these foods are good and easy, **do not rely on the chicken and meat types for your protein needs.** They do not have enough protein for adults.
- Instant mashed potatoes
- Canned chicken or vegetable broths
- Dry milk powder
- Cocoa or hot chocolate mix
- Regular or instant hot cereals
- Pasta or rice meals in a bag

## Main dishes

- Roast beef hash or corned beef hash
- Stews
- Vegetable or bean soups
- Smooth peanut butter or other smooth nut butters
- Pasta with meat or cheese (ravioli or spaghetti)
- Canned or jarred fish, such as tuna, salmon, and gefilte fish
- Soft or silken tofu

## Side dishes

- Canned vegetables
- Canned or jarred fruits, such as applesauce, canned peaches, or crushed pineapple

## **Fruit and vegetable juices**

- Nectars
- 100% vegetable or fruit juices, as tolerated

## **Seasonings**

- Ketchup
- Mayonnaise
- Jellies
- Honey
- Maple and chocolate syrups
- Sauces (cream, tomato, soy, Worcestershire, BBQ)
- Gravies
- Spices and herbs, as tolerated

## **Freezer case**

These items must be stored in a freezer. Make sure you have room in your freezer at home. Some of these products may have to be blended or ground to change the consistency. This will depend on what you can tolerate. Check the list or talk to your doctor, dietitian, or speech or swallowing therapist.

## **Meat and main dishes**

- Lasagna
- Macaroni and cheese
- Frozen fish fillets
- Blintzes
- Meat loaf and meatballs
- Quiche

## **Breakfast items**

- French toast
- Pancakes
- Egg substitutes
- Potato pancakes

## **Soups**

- Creamy or strained vegetable soups
- Broths
- Chicken noodle or chicken and rice soups

- Chowders
- Bean soups
- Stews

### **Side dishes**

- Vegetables (Frozen vegetables are the next best thing to fresh. Choose these over canned ones whenever possible.)
- Chopped spinach
- Mashed squash
- Rice or rice dishes
- Potatoes
- Stuffed baked potatoes
- Soft potato puffs or croquettes

### **Fruit**

- Thawed, frozen fruit
- Fruit ices
- Popsicles

### **Desserts**

- Ice cream
- Frozen yogurt
- Mousse
- Whipped toppings
- Sherbet

### **Bakery items**

For some people on a mechanical soft diet, bread can be soaked in liquid until soft. You may want to soak it in soup, coffee, broth, or milk.

### **Deli counter**

Look for items that are the right consistency for you, such as tuna or egg salads. Some deli counters might also have puddings and gelatins.

### **Produce section**

Eat different colored (orange, green, red, purple, and yellow) fruits and vegetables. This can help you meet your daily needs of vitamins and minerals.

Fruit can help add variety to your meals. Some can be mashed or puréed raw. It is helpful to add some extra fruit juice when blending. This will help you get the right consistency and prevent it from getting brown. You can also add fruits to milkshakes to give them extra flavor and nutrients.

It is best to eat fresh vegetables because some nutrients can be lost from freezing and canning. Most vegetables need to be cooked in a small amount of water to keep the nutrients. After cooking, they can be ground, chopped, or blended to the consistency that is right for you.

For baking, try white potatoes, sweet potatoes, yams, beets, or squash. For steaming, boiling, microwaving, or adding to soups, try all the above items plus onions, celery, peas, carrots, green beans, cabbage, parsnips, spinach, eggplant, rutabagas, turnips, broccoli, cauliflower, tomatoes (without the seeds), asparagus, mushrooms, and zucchini.

## **Fresh herbs**

Fresh herbs provide flavor and variety and may help flavor foods if you are experiencing taste changes. Buy them by the bunch. Wash and dry them. You can then place them in a Zip-Loc® bag, freeze them, and use them as needed. Dill, parsley, garlic, and basil go with most foods. You can add them to meats, fish, and vegetables. Dill adds flavor when steamed with potatoes and carrots. Basil is delicious in tomato sauces and soups. Garlic can be used with almost anything.

## **Tofu**

Tofu is also known as soybean curd. It is bland, soft, high in protein and has no lactose or cholesterol. You can add it to shakes or soups or use it in place of ground meat products such as meatballs. Tofu is found in sealed packages in the produce section and in health food stores. Some places might sell tofu out of large open containers soaked in water. For your safety, only buy tofu in sealed packages.

## **Meat counter**

Ground meats are the most versatile kind of meat. You can use them in sauces, casseroles, soups, meat loaf, and meatballs. There are several types of ground meats that you can find, such as beef, turkey, chicken, veal, and lamb. Ground turkey breast is low in fat. Make sure it is ground turkey breast and not just ground turkey. Ground turkey contains the skin, so it is higher in fat. You can use ground turkey breast to replace all or some of the red meat in your recipes. You can also ask your butcher to grind any meat that you want.

## **Seafood counter**

When buying fresh fish, avoid bony fishes because they do not blend or process well. Fresh flat fish such as flounder and sole are best. They are flaky, soft, and easy to blend or process. Shellfish such as shrimp or lobster may be thoroughly steamed, removed from the shell and blended. Frozen fish fillets are very convenient and often cheaper than fresh fish. They are best cooked when partially thawed in the refrigerator for a few hours.

## **Planning Your Meals**

Changing your eating habits can be difficult. It is best to plan ahead for meals. This can help make sure you have enough of the right foods to eat at mealtimes. Here are some questions to consider when planning your meals:

- Where will you be eating (at home, a restaurant, work, someone else's house)?
- If you are eating at a restaurant, can you call ahead and request special meals?
- Do you have refrigeration and cooking facilities available? Can you boil water? Can you microwave? Can you use a blender or food processor?
- Can you carry a thermos with food already prepared and ready to eat?

## Eating at Home With Family and Friends

Most foods can be adapted to meet your needs. For example, one portion of soup can be put aside, then strained or blended.

Many main dishes, such as noodles, stews, and casseroles can be put into a blender with some liquid. For the liquid, you can use milk, gravy, tomato sauce, broth, juice, or just water. Add liquid until the food is the right consistency. Many people find it more appetizing to prepare each item separately. For instance, blend the noodles and then add the sauce on top.

Here is some equipment that you may find very helpful to prepare your foods at home:

**Blender:** This item can be used for all types of foods but requires liquid to make the right consistency. Blenders are excellent for soups and shakes. However, they are not always the best to use for making 1 portion. The Magic Bullet® is a convenient blender that does not take up a lot of space. The Vitamix® is another powerful blender that can purée a variety of foods.

**Food processor:** This is the most expensive item of all the equipment, but it is good for shredding, slicing, chopping or blending foods. It can be purchased in different sizes. If you often prepare just 1 portion of food, buy a small processor.

**Hand-held blender:** This is a convenient device because you can use it purée your favorite soups right in the pot. It can also be used to soften well-cooked foods in a small bowl for 1 or 2 portions.

**Household mesh strainer or sieve:** This is an excellent tool for straining fruits and vegetables but not meats. They are inexpensive, good to make 1 portion, and do not need electricity. However, this method can be slow.

**Food mill:** This is an excellent tool to strain fruits, vegetables, and soups, but do not use it with meats. It is faster than a strainer and does not require electricity to work.

**Meat grinder:** This item can be hand-operated or electric. It can be used to grind meats and vegetables. The foods do not come out as fine as they would from a strainer or sieve. Therefore, the grinder may not be useful for some people.

**Baby-food grinder:** This item can often be found in stores that sell baby clothes or furniture. They are good for all foods and require no liquid. The small ones are ideal for grinding 1 portion of food. They can be hand- or battery-operated. Food may not come out as smooth as necessary for some people. Ask your dietitian, doctor, or speech or swallowing therapist if it is right for you.

## Eating Out

Eat at restaurants that offer a variety of foods and that will cater to people on special diets. Many places will purée or prepare foods for your needs. Call ahead and speak to a manager or chef. You may be surprised at how accommodating they will be. It can be helpful to order sides of broth, gravy, or milk to moisten your foods.

Here are some ideas of things you can order. Some of these may need to be mashed or blended for the puréed diet:

## Breakfast

- Fruit and vegetable juices
- Fruits as tolerated
- Hot cereal
- Cold cereal softened in milk (for mechanical soft diets)

- Scrambled eggs or chopped, hard-boiled eggs for mechanical soft diets
- Soft breads, such as muffins and pancakes, soaked in liquid to soften them for mechanical soft diets
- Coffee, tea, or hot chocolate

## **Lunch and dinner**

- Fruit and vegetable juices
- Soups, which can be easily blended or strained in the restaurant. Egg drop soup is a good source of protein

## **Main dishes**

- Ground meat products, such as hamburger patties, meatloaf, and meatballs
- Soft, flaky fish (such as fillet of sole, flounder, or tilapia) steamed, baked, or broiled
- Noodles and macaroni dishes blenderized for puréed diets
- Soufflés
- Cottage cheese and soft fruit platters
- Sandwiches such as tuna or egg salad on soft bread

## **Vegetables**

- Baked or mashed potatoes
- Any soft cooked vegetables such as cooked carrots
- Creamed spinach
- Vegetable soufflé
- Guacamole (be aware of your tolerance to spicy foods)
- Hummus

## **Desserts**

- Ice cream or frozen yogurt
- Gelatin desserts
- Milkshakes
- Mousse
- Puddings and custards
- Applesauce or other soft fruits
- Fruit sorbets

It is also possible to eat away from home, such as at work or at a friend's house. Here are some tips for taking food with you while you are away from home:



- Bring a food grinder or small food processor. If electricity is needed, make sure it is available where you are going.
- Buy a thermos. Make soup or hot cereal and carry it with you.
- Ask if there is a microwave where you are going. You can make food at home and freeze it in portion-sized, microwave-safe containers or Zip-Loc® bags. Bring the food with you in an insulated pack and heat it when you want to eat.
- Freeze soups or puréed foods in ice cube trays. Cover the tray with foil or plastic wrap to prevent freezer burn. When you are hungry, use 2 or 3 cubes for a small meal or snack, or more cubes if you are really hungry.

## Recipes

Many of the following recipes and ideas came from people just like you. We hope they are helpful. For additional recipes, tips, and ideas, please check out the book *Eat Well Stay Nourished*. It was written by Support for People with Oral and Head and Neck Cancer (SPOHNC). You can purchase it online at [www.spohnc.org](http://www.spohnc.org) or by phone at 1-800-377-0928.

## Beverages

Many of these beverages are good to drink if you want to boost your calories. Try various fruits and juices.

### Fortified milk

Use this recipe to boost the calorie and protein content of a glass of milk. Also, use it as a substitute for milk in your favorite recipes for soups or custards.

1 cup of non-fat dried milk powder

1 quart of skim or 1% milk (use whole milk if you need extra calories)

Combine and stir well.

### Milkshake

1 cup of skim, 1%, whole or fortified milk

1 cup of ice cream or frozen yogurt

Blend well and drink.

Variation: add malted milk powder, syrups, nut butters, or fruits. Try other flavors and consistencies you may enjoy.

### Choco-Banana Swirl

$\frac{2}{3}$  cup of vanilla yogurt

$\frac{2}{3}$  cup of vanilla ice cream or frozen yogurt

$\frac{1}{4}$  cup of chilled and sliced ripe banana (about half of a medium banana)

2 teaspoons of chocolate-flavored syrup

Combine everything except the chocolate syrup in a blender. Blend until smooth. Pour  $\frac{1}{2}$  cup into 2 glasses; set them aside. Add the chocolate syrup to the remaining mixture in the blender and blend it until it is all 1 color. Pour the remaining mixture into the 2 glasses and mix it gently with a spoon.

## **Fruit Smoothie**

2/3 cup of vanilla yogurt  
1/2 cup of fruit nectar  
2/3 cup of chilled or frozen fruit of your choice  
1 tablespoon of honey  
4 ice cubes

Put all the ingredients into a blender. Blend until smooth. Makes about 2 servings.

## **Blender Breakfast**

This drink is easy to make and is full of calcium, vitamins, and fiber.

1 banana, peach, or nectarine, peeled and cut into chunks  
1/2 cup of skim, 1%, whole, or fortified milk (you can also use 1/2 cup of low-fat yogurt)  
1 teaspoon of sugar or honey  
1 tablespoon of natural bran

Combine all the ingredients into a blender and process until smooth. Pour into a tall glass. Makes about 1 (8-ounce) serving.

## **Sauces**

Use these sauces to moisten your foods and make them more tasty and attractive. Some are used in other recipes in this resource.

### **Basic White Sauce**

1 cup of skim, 1%, whole, or fortified milk  
2 tablespoons of any kind of oil or butter  
2 to 3 tablespoons of flour

Mix the flour and oil or butter in a saucepan. Cook over low heat, stirring constantly until the mixture is smooth and bubbly. Remove from heat. Stir in the milk. Boil for 1 minute, stirring constantly. After a few minutes, it will begin to thicken. The more flour you add, the thicker the sauce will be.

Variation: to make a basic brown sauce, substitute 2/3 cup of low-sodium beef or chicken broth for the milk.

## **Soups**

Eating soup is a good way to get more liquid and vegetables in your diet. People on a mechanical soft diet can tolerate some of these soups without any processing. The soups must be put through a blender or strainer for people on a puréed diet. Try some of these recipes or substitute ingredients to make it right for you.

### **Creamy Soup**

This is a recipe for a basic creamy soup. Add whichever vegetables and spices you like.

1 cup of cooked Basic White Sauce (see recipe above)  
1/2 cup of puréed vegetables or baby food vegetables  
Salt and pepper to taste

Follow the recipe for Basic White Sauce. Mix in the puréed vegetables. Add salt and butter to taste.

Variations:

- Try adding green beans, carrots, broccoli, squash, peas, mushrooms, or asparagus.
- Try adding dill, garlic, thyme, onion, or celery.

## **Vegetarian Creamy Tofu Soup**

2 ounces of tofu

8 ounces of creamy soup (see recipe above)

Place in blender and process until smooth. Heat and enjoy.

## **Avocado Soup**

1 ripe, medium avocado (flesh only)

1 small onion, cut up

½ teaspoon of salt

3 cups of chicken or vegetable broth

1 cup of yogurt

3 tablespoons of lemon juice (strained, if fresh)

Purée the avocado and onion with 1 cup of broth. Add the salt, remaining broth, and lemon juice, and mix for a few seconds. Then add the yogurt and sour cream and blend until smooth. Serve cold.

## **Spa Vegetable Soup**

This is an easy way to make vegetable soup. You can change the vegetables as much as you like.

3 cups of chicken or vegetable broth

1 carrot, sliced

1 cup of broccoli florets

1 cup of cauliflower florets

½ cup of red cabbage, thinly sliced (or try spinach)

1 green onion, thinly sliced

Salt and pepper to taste

In a saucepan, bring the broth to a boil. Add the carrot and simmer for 20 minutes. Add the remaining vegetables and simmer until completely cooked through. Place in a blender and purée. Season with salt and pepper to taste.

Variations:

- Add other herbs and spices, as you want.
- Try adding tofu chunks to increase the amount of protein.
- Drizzle some olive oil into the soup as you purée it for extra calories.

## **Egg Custard**

2 slices of white bread

2 slices of whole-wheat bread

1 ¾ cups of eggs

½ quart of milk or fortified milk

Preheat the oven to 350° F. Remove the crusts from the bread. Lay the bread into a baking dish, forming a checkerboard with the white and the whole-wheat breads. Combine the eggs and milk and pour the mixture over the bread. Let the mixture sit for 20 minutes. Cover with foil. Cook until internal temperature reaches 165° F. Remove the foil and cut into squares.

## Cereals

Try these recipes for a healthy start to your day.

### Cooked Cereals

- When making instant hot cereals, use milk instead of water to provide more nutrients and calories. You can use skim, 1%, whole, soy, almond, rice, or fortified milk. Some people also add heavy cream or half and half for extra calories.
- Add applesauce, puréed banana, cinnamon, honey, yogurt, nut butters, or brown sugar and blend.

### High-protein Oatmeal

1 cup of cooked oatmeal, prepared as instructed on the package

1/2 cup of fortified milk

2 teaspoons of sugar, honey, or brown sugar

1 small jar of baby food bananas

Cinnamon to taste (optional)

Mix all the ingredients together and serve while hot.

## Eggs

Try these recipes for breakfast, lunch, or dinner.

### Soufflé

1/4 cup of butter

1/4 cup of flour

1 1/2 cup of milk or fortified milk

1/4 teaspoon of salt

1/2 teaspoon of Worcestershire sauce (optional)

4 eggs, separated (yolks and whites in different bowls)

1/2 pound of low-fat cheddar cheese

Preheat the oven to 350° F. Melt the butter in a saucepan. Stir in the flour until it is well blended. Remove from heat. Add the milk and cook until thickened.

Turn off the heat, add the cheese, and stir until melted. Let the mixture cool. Beat in the egg yolks one at a time. In a separate bowl, whip the egg whites until they are stiff. Fold (mix gently, in small amounts at a time) the whipped egg whites into the sauce. Pour the mixture into a 2-quart size casserole dish and bake for 30 to 45 minutes.

### Cottage Cheese Pie

This recipe is only for those on a mechanical soft diet.

3 medium eggs or egg substitute

2 springs of parsley, chopped

1 pound of cottage cheese

1 small onion, diced

1/2 cup of Parmesan cheese

1/2 cup of mozzarella cheese, diced or grated

Salt and pepper to taste

Cornmeal

Preheat oven to 350° F. Mix eggs, cottage cheese, onion, Parmesan cheese, mozzarella cheese, and parsley together in a bowl. Grease a 9-inch glass pie pan with oil. Sprinkle cornmeal lightly to cover the entire pan. Pour the mixture into the pie pan. Bake for 45 minutes. Insert a toothpick into the center of the pie; if it comes out dry, then it is done.

## **Quiche Custard**

This version is appropriate for those on a puréed diet.

1/4 of an onion, chopped finely  
1 tablespoon of butter  
1 tablespoon of Parmesan cheese  
1/4 cup of milk, fortified milk, or soy milk  
1/4 cup of heavy cream  
1 egg or egg substitute  
1/4 cup of cheese (swiss, cheddar, or mozzarella)  
Pinch of salt  
Pinch of nutmeg

Preheat the oven to 350° F. Sauté the onion in the butter until transparent. Place onion, milk, cream, and egg in blender. Blend until onions are puréed. Place the cheeses into a small, greased casserole dish. Pour egg mixture and seasonings over the cheese.

Place the casserole dish in a large pan containing hot water. Bake until the mixture sets, about 25 to 30 minutes.

## **Main dishes**

### **Sweet Potato Pie**

This dish can be eaten as is by people on a mechanical soft diet. It must be mashed or puréed for those who are on a puréed diet.

1 1/2 cups of cooked mashed sweet potatoes (or one 15-ounce can of pumpkin purée)  
1 can of evaporated skim milk  
1/2 teaspoon of nutmeg  
1 teaspoon of cinnamon  
1/2 cup of sugar (increase to 1 cup if you prefer a sweeter pie or want to add more calories)  
Cornmeal

Preheat the oven to 350° F. Mix the sweet potatoes (or pumpkin) with the evaporated milk and spices. Add the sugar and mix. Grease a 9-inch pie pan with oil. Sprinkle the pan with cornmeal to cover it. Shake off the excess. Bake for 45 minutes. Insert a toothpick into the center of the pie; if it comes out dry, then it is done.

### **Lentil and Carrot Stew**

6 ounces of dry lentils  
3 cups of water  
4 medium carrots, peeled, quartered lengthwise, and cut into 1-inch pieces (2 1/2 cups)  
1 onion, diced  
1 small stalk of washed, trimmed, and chopped celery (1/4 cup)  
3 bay leaves  
1 teaspoon of salt (optional)  
1 bunch of fresh cilantro or parsley, washed  
2 teaspoons of olive oil

Sort the lentils and discard any stones or damaged lentils. Wash them in a sieve under cold water. Drain. Place the lentils in a large pot. Add the water, carrots, onions, celery, bay leaves, and salt. Remove the cilantro or parsley leaves and set them aside as a garnish. Chop the stems and roots; add them to the pot. Bring the mixture to a boil over high heat. Reduce the heat to low, cover, and cook at a very gentle boil for 55 minutes. Let the mixture cool. Place it in a blender and process until smooth. Garnish with the cilantro or parsley leaves when serving.

## **Chicken Tamale Pie**

1/2 cup of cornmeal (or polenta)  
2 cups of chicken broth  
1 to 2 cups of cooked chicken, cut up  
1 cup (8-ounce can) of tomato sauce  
Dash of garlic powder  
Dash of oregano  
Dash of thyme  
Grated Parmesan or Cheddar cheese

Preheat the oven to 350° F. Cook the cornmeal in the chicken broth until it is thick. Cool it slightly and spread it into a greased casserole dish. Grind or purée the chicken according to your needs. Spread it on top of the cornmeal mixture. Season the tomato sauce with garlic, oregano, and thyme. Spread it on top of the chicken. Sprinkle cheese over the layer of tomato sauce. Cook for 30 minutes or until the cheese melts.

## **Meatloaf**

1 1/2 pounds of lean ground beef or turkey  
2 cloves of garlic, minced  
1 cup of dry bread crumbs  
1 egg, beaten  
1/4 cup of minced onion  
1 tablespoon of Worcestershire sauce  
1 teaspoon of chopped parsley  
2 tablespoons of tomato sauce  
1 teaspoon of salt (optional)

Preheat the oven to 350° F. Mix all the ingredients thoroughly. Spread the mixture in an ungreased 9 x 5 x 3-inch loaf pan. Bake for 1 1/2 hours. For those on a puréed diet, you may place the cooked meat loaf in a blender with some liquid and blend it to the consistency you need.

## **Salads**

### **Tuna Salad**

3 1/2 ounces of canned tuna in water or oil  
2 tablespoons of regular or low-fat mayonnaise  
1 tablespoon of sweet-mixed pickle relish (optional)

Mash the tuna with a fork until fine. Place the mayonnaise in a blender. For extra flavor, add 1 tablespoon of sweet-mixed pickle relish. If relish is added, blend until smooth. Add tuna and blend to desired consistency.

Variations:

- Replace the tuna with 1 or 2 hard-boiled eggs to make egg salad.
- Replace the tuna with 3 ounces of cooked chicken or turkey to make chicken or turkey salad.

## **Cottage Cheese and Fruit Salad**

1 package (to make 2 cups) of gelatin (any flavor)  
1 cup of boiling water  
½ cup of peaches, sliced  
1 cup of cottage cheese

Place the gelatin in a blender. Add the boiling water and blend for 1 second. Add the peaches and the cottage cheese. Blend until smooth. Pour into a container and chill until firm.

## **Side dishes**

### **Winter Squash and Carrot Purée**

1 butternut squash (2 ¾ pounds, cut in half, lengthwise with the seeds removed)  
4 carrots, thinly sliced  
1 clove of garlic, thinly sliced  
¼ teaspoon of thyme  
1 tablespoon of unsalted butter, cut into small pieces  
2 cups of water  
Salt and pepper to taste

Preheat the oven to 350° F. Set the squash, cut side down, on a lightly oiled baking sheet. Bake it for 45 minutes or until soft. Combine the carrots, garlic, thyme, and water in a saucepan. Cover and bring to a boil, then simmer over low heat for 20 minutes or until the carrots are tender. Transfer the contents from the pan to a food processor; purée. Scoop the squash out of its skin and purée it with the carrots. Season with salt and pepper to taste.

Spread the purée on a buttered, shallow baking dish; dot with the butter. Bake for 20 minutes or until hot and serve.

### **Lima Bean Purée**

8 ounces of large, dry lima beans  
3 cups of water or vegetable broth  
½ teaspoon of salt  
1 teaspoon (or more) of olive oil

Sort the beans, discarding any stones or damaged beans. Wash the beans in a sieve under cold water and drain. Place them in a saucepan or pot. Add the water and salt. Bring the mixture to a boil. Cover, reduce the heat to low, and boil gently for 45 minutes, until the beans are very tender. Transfer the mixture (there should be about 3 cups, including the liquid) to a food processor. Add the oil and process for 20 to 30 seconds until very smooth.

Variation: use your favorite beans or chickpeas in place of the lima beans.

### **Butternut Squash Purée**

1 large butternut squash  
1 tablespoon of maple syrup  
1 teaspoon of butter or margarine

Peel the squash and cut it into small pieces. Boil until tender. Mash the squash with a fork and mix it with the maple syrup and butter or margarine.

## **Purée of Broccoli With Garlic**

1 bunch of broccoli (1  $\frac{3}{4}$  pounds)  
1 cup of water  
1 medium potato, peeled and cut into 1-inch pieces  
2 cloves of garlic, peeled  
1 teaspoon of salt  
1 teaspoon of unsalted butter  
1 teaspoon of olive oil

Separate the broccoli into stalks. Peel the stems with a vegetable peeler, removing the outer layer. Cut the stalks (including the florets) into 2-inch pieces. Place the broccoli in a large saucepan with the water, potatoes, garlic, and salt. Bring to a boil, cover, and reduce the heat to low. Boil gently for 15 minutes, or until the vegetables are tender. About  $\frac{1}{2}$  cup of liquid should remain. Place the contents of the saucepan in the food processor and add butter and oil. Process the mixture for 45 seconds, until it is very smooth. Serve immediately.

## **Desserts**

### **Peach Sauce**

Drain the syrup from any size can of peaches. Blend the peaches until they are smooth. Store in the refrigerator. This sauce is delicious over ice cream or frozen yogurt, or you can eat it as is. Those on a mechanical soft diet can also use it to soften cakes, etc.

### **Puréed Fresh Fruits**

You can purée any fruit that is in season in a baby food grinder, blender or food processor. Sprinkle apples with lemon juice to avoid browning. You can add cinnamon or mix a few different kinds of fruit together for a fruit punch flavor.

### **Ricotta Cherry Mousse**

1 pound (2 cups) of ricotta cheese  
3 tablespoons of sifted powdered sugar  
 $\frac{1}{4}$  teaspoon of almond extract  
1 teaspoon of vanilla extract  
2 cups of dark cherries, pitted and sliced (or use frozen unsweetened cherries if fresh ones are not available)  
 $\frac{1}{2}$  cup of semisweet chocolate chips, ground to a coarse meal in a blender

Put the ricotta in a medium-size mixing bowl and beat it with an electric mixer at high speed for about 3 minutes.

Slowly add the sugar. Stir in the extracts, cover, and chill. Fifteen minutes before you serve the mousse, fold in the cherries. Serve it topped with the ground chocolate.

### **Peaches and Cream**

1 banana  
1 peach  
 $\frac{1}{2}$  cup of ice cubes  
2 tablespoons of plain yogurt  
Peach nectar

Place the banana, peach, ice cubes, and yogurt into a blender. Blend until smooth. Add enough peach nectar to reach the 16-ounce mark on the blender. Blend until smooth.



## **Contact Information for Nutrition Services at MSK**

### **Department of Food and Nutrition in New York, NY**

212-639-7071

### **Radiation Oncology Outpatient Nutrition in New York, NY**

212-639-7622

### **Outpatient Nutrition in Commack, NY**

631-623-4000

### **Outpatient Nutrition in Rockville Centre, NY**

516-256-3651

### **Outpatient Nutrition in Sleepy Hollow, NY**

914-366-0702

### **Outpatient Nutrition in Basking Ridge, NJ**

908-542-3002



This section includes a list of MSK support services, as well as the resources that were referred to throughout this guide. These resources will help you prepare for your surgery and recover safely. Write down any questions you have and be sure to ask your doctor or nurse.

# MSK Resources

## **Admitting**

212-639-5014

Call to discuss private room or luxury suite options. If you want to change your room choice after your presurgical testing visit, call 212-639-7873 or 212-639-7874.

## **Anesthesia**

212-639-6840

Call with questions about anesthesia.

## **Blood Donor Room**

212-639-7643

Call for more information if you are interested in donating blood or platelets.

## **Bobst International Center**

888-675-7722

MSK welcomes patients from around the world. If you are an international patient, call for help coordinating your care.

## **Chaplaincy Service**

212-639-5982

At MSK, our chaplains are available to listen, help support family members, pray, contact community clergy or faith groups, or simply be a comforting companion and a spiritual presence. Anyone can request spiritual support, regardless of formal religious affiliation. The interfaith chapel is located near the main lobby of Memorial Hospital, and is open 24 hours a day. If you have an emergency, please call the hospital operator and ask for the chaplain on call.

## **Counseling Center**

646-888-0200

Many people find counseling helpful. We provide counseling for individuals, couples, families, and groups, as well as medications to help if you feel anxious or depressed.

## **Integrative Medicine Service**

646-888-0800

Integrative Medicine Service offers patients many services to complement traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy.

## **Look Good Feel Better Program**

800-227-2345

Learn techniques to help you feel better about your appearance by taking a workshop or visiting the program online at [www.lookgoodfeelbetter.org](http://www.lookgoodfeelbetter.org).

## **Patient-to-Patient Support Program**

212-639-5007

You may find it comforting to speak with a cancer survivor or caregiver who has been through a similar treatment. Through our Patient-to-Patient Support Program, we are able to offer you a chance to speak with former patients and caregivers.

**Patient Financial Services**

212-639-8242

Call with any questions about preauthorization from your insurance company. This is also called preapproval. Patient Financial Services can also help you with your billing or other insurance questions..

**Patient Representative Office**

212-639-7202

Call if you have any questions about the Health Care Proxy form or if you have any concerns about your care.

**Perioperative Clinical Nurse Specialist**

212-639-5935

Call if you have any questions about MSK releasing any information while you are having surgery.

**Private Nursing Options**

212-639-6892

Patients may request private nurses or companions. Call for more information.

**Resources for Life After Cancer (RLAC) Program**

646-888-8106

At MSK, care doesn't end after active treatment. The RLAC Program is for patients and their families who have finished treatment. This program has many services, including seminars, workshops, support groups, counseling on life after treatment, and help with insurance and employment issues.

**Social Work**

646-888-5271 or 646-888-5203

Social workers help patients, family, and friends deal with issues that are common for cancer patients. They provide individual counseling and support groups throughout the course of treatment, and can help you communicate with children and other family members. Our social workers can also refer you to community agencies and programs, as well as financial resources if you're eligible.

**Tobacco Treatment Program**

212-610-0507

If you want to quit smoking, MSK has specialists who can help. Call for more information.

For additional online information, visit LIBGUIDES on MSK's library website at: <http://library.mskcc.org>. You can also contact the library reference staff at 212-639-7439 for help.

# External Resources

The following are resources outside of MSK that you may find helpful:

## **Access-A-Ride**

[www.mta.info/nyct/paratran/guide.htm](http://www.mta.info/nyct/paratran/guide.htm)

877-337-2017

In New York City, the MTA offers a shared ride, door-to-door service for people with disabilities who are unable to take the public bus or subway.

## **Air Charity Network**

[www.aircharitynetwork.org](http://www.aircharitynetwork.org)

877-621-7177

Provides travel to treatment centers.

## **American Cancer Society (ACS)**

[www.cancer.org](http://www.cancer.org)

800-227-2345

Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.

## **Cancer and Careers**

[www.cancerandcareers.org](http://www.cancerandcareers.org)

A comprehensive resource for education, tools, and events for employees with cancer.

## **CancerCare**

[www.cancercare.com](http://www.cancercare.com)

800-813-4673

275 Seventh Avenue (between West 25<sup>th</sup> & West 26<sup>th</sup> Streets)

New York, NY 10001

Provides counseling, support groups, educational workshops, publications, and financial assistance.

## **Cancer Support Community**

<http://cancersupportcommunity.org>

Provides support and education to people affected by cancer.

## **Caregiver Action Network**

[www.caregiveraction.org](http://www.caregiveraction.org)

800-896-3650

Provides education and support for those who care for loved ones with a chronic illness or disability.

## **Chronic Disease Fund**

[www.cdfund.org](http://www.cdfund.org)

877-968-7233

Offers financial assistance to pay for copayments during treatment. Patients must have medical insurance, meet the income criteria, and be prescribed medication that is part of the CDF formulary.

## **Corporate Angel Network**

[www.corpangelnetwork.org](http://www.corpangelnetwork.org)

866-328-1313

Free travel to treatment across the country using empty seats on corporate jets.

**fertileHOPE**

[www.fertilehope.org](http://www.fertilehope.org)

855-220-7777

Provides reproductive information and support to cancer patients and survivors whose medical treatments have risks associated with infertility.

**Gilda's Club**

[www.gildasclubnyc.org](http://www.gildasclubnyc.org)

212-647-9700

A place where men, women, and children living with cancer find social and emotional support through networking, workshops, lectures, and social activities.

**Healthwell Foundation**

[www.healthwellfoundation.org](http://www.healthwellfoundation.org)

800-675-8416

Provides financial assistance to cover copayments, health care premiums, and deductibles for certain medications and therapies.

**Hospital Hosts**

[www.hospitalhosts.com](http://www.hospitalhosts.com)

National resource to help reduce costs related to medical travel needs such as air, car, and lodging near hospitals.

**Joe's House**

[www.joeshouse.org](http://www.joeshouse.org)

877-563-7468

Provides a list of places to stay near treatment centers for people with cancer and their families.

**LGBT Cancer Project**

<http://lgbtcancer.com>

Provides support and advocacy for the LGBT community, including an online support groups and a database of LGBT friendly clinical trials.

**National Cancer Institute**

[www.cancer.gov](http://www.cancer.gov)

**National Cancer Legal Services Network**

[www.nclsn.org](http://www.nclsn.org)

Free cancer legal advocacy program.

**National LGBT Cancer Network**

[www.cancer-network.org](http://www.cancer-network.org)

Provides education, training, and advocacy for LGBT cancer survivors and those at risk.

**Needy Meds**

[www.needymeds.com](http://www.needymeds.com)

Lists Patient Assistance Programs for brand and generic name medications.

**NYRx**

[www.nyrxplan.com](http://www.nyrxplan.com)

Provides prescription benefits to eligible employees and retirees of public sector employers in New York State.

**Partnership for Prescription Assistance**

[www.pparx.org](http://www.pparx.org)

888-477-2669

Helps qualifying patients without prescription drug coverage get free or low-cost medications.

**Patient Access Network Foundation**

[www.panfoundation.org](http://www.panfoundation.org)

866-316-7263

Provides assistance with copayments for patients with insurance.

**Patient Advocate Foundation**

[www.patientadvocate.org](http://www.patientadvocate.org)

800-532-5274

Provides access to care, financial assistance, insurance assistance, job retention assistance, and access to the national underinsured resource directory.

**RxHope**

[www.rxhope.com](http://www.rxhope.com)

877-267-0517

Provides assistance to help people obtain medications that they have trouble affording.

**Support for People with Oral and Head and Neck Cancer (SPOHNC)**

[www.spohnc.org](http://www.spohnc.org)

800-377-0928

Provides information and support for people with oral and head and neck cancer.