About Your Surgery for Cancer of the Nasal Cavity and Paranasal Sinuses

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About Your Surgery

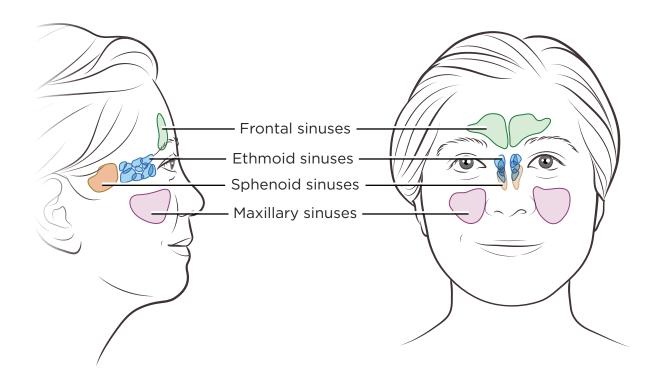
This guide will help you prepare for your surgery for cancer of the nasal cavity and paranasal sinuses at Memorial Sloan Kettering (MSK), and help you understand what to expect during your recovery. Read through this guide at least once before your surgery and then use it as a reference in the days leading up to your surgery. 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.

The Nasal Cavity

The nasal cavity is a large, air-filled space above and behind your nose in the middle of your face. It has 2 openings called the nostrils, which warm and moisturize the air you breathe in. Your nose and sinuses are covered with a layer of cells that produce mucus and warm the air you breathe. They also affect how your voice sounds when you speak.

Inside the nasal cavity, you have 4 different types of **paranasal sinuses.** The paranasal sinuses are a group of hollow, air-filled spaces that surround your nasal cavity. These include (see figure below):

- 1. **Frontal sinuses,** which are located above your eyes.
- 2. **Ethmoid sinuses,** which are located between your eyes.
- 3. **Sphenoid sinuses,** which are located deep in your nasal cavity, behind your ethmoid sinuses.
- 4. **Maxillary sinuses,** which are located on the sides of your nose.



Types of Surgery

Tumors of the nasal cavity and paranasal sinuses are treated with surgery. The goal of the surgery is to remove the entire tumor and a small amount of normal tissue around it. These tumors grow in areas that have many muscles, nerves, and blood vessels and other important structures. If any of these other structures need to be removed, it can impact how you look and perform basic functions. Therefore, another goal of the surgery is to allow you to maintain your appearance and the ability to breathe, chew, talk, and swallow.

Depending on your surgery, your treatment team may include:

- Head and neck surgeon, plastic reconstructive surgeon, and neurosurgeon
- · Radiation oncologist
- Oncologist
- Dentist
- Nurses
- Speech and swallowing therapist
- Dietitians
- · Case managers
- · Social workers

The different types of surgery are described below. Your doctor will tell you which surgery you are having.

Nasal cavity surgery

Some nasal cavity tumors can be removed with a surgery called wide local excision. This surgery removes the tumor and a small amount of normal tissue around it. A pathologist will examine the tumor to see if it is cancerous.

Tumors that are located on nasal turbinates (long, thin bones located on the inside walls of your nose) can be removed by a surgery called medial maxillectomy.

Tumors that involve the tissue on the outside of your nose may be removed by removing part of your nose or your entire nose.

Surgery for paranasal sinus tumors

The type of surgery for paranasal sinus tumors depends on the where the tumors are located, how big they are, and what other structures are involved.

Tumors that are small, noncancerous, and involve only the ethmoid sinuses are removed with a surgery called external ethmoidectomy.

Tumors that have grown into the maxillary sinus can be removed by a surgery called maxillectomy. The extent of the surgery depends on where the tumor is located and whether it involves nearby tissue and structures. The surgery may require partial or complete removal of:

- · Bone around your maxillary sinus
- Bone of the hard palate (roof of your mouth)
- Upper teeth on one side of your mouth
- Part of or your entire orbit (eye socket)
- Part of your cheekbone
- Part of the boney part of your upper nose

If part of your hard palate is removed, there may be an open connection between your nasal cavity and your oral cavity. Your dental surgeon will take impressions before and at the time of your surgery. He or she will place a surgical plate or obturator to close the opening in your palate. This will help with your speech and eating. While in the hospital, your nurse will teach you how to remove the obturator and clean the opening in your palate.

Tumors in the ethmoid, frontal, or sphenoid sinuses are removed by a surgery called craniofacial resection. This surgery involves removing the tumor through incisions on the face and skull to gain access to the tumor. By coming at the tumor from above and below, your surgeons have a better chance of removing the entire tumor while decreasing possible damage to the brain, nerves and other major structures. This surgery is very complex and requires a surgical team consisting of a head and neck surgeon, plastic surgeon, and neurosurgeon.

Endoscopic surgery

This surgery uses endoscopes, which are thin, flexible, lighted tubes that are inserted in your nose to reach your nasal cavity and sinuses. This surgery is used for tumors that are small and less involved. It is also used to treat sinus disease.

Removal of lymph nodes

Cancers of the nasal cavity and the paranasal sinuses sometimes spread to lymph nodes in the neck. Lymph nodes are removed through a surgery called neck dissection. Your surgeon will determine if you need a neck dissection based on a medical exam and a computed tomography (CT) or magnetic resonance imaging (MRI) scan. If you have lymph nodes removed, you will have a drainage tube in place for several days. The drainage will be measured, and once the drainage is low enough, the drain will be removed.

Notes	

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 medications to help prevent them.
- If you drink alcohol regularly, you may be at risk for other complications during and after your 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.

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®), and tinzaparin (Innohep®). There are others, so be sure your doctor knows all the medications you're taking.
- I take prescription medications, including patches and creams.
- 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.
- 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.

About Smoking

People who smoke can have breathing problems when they have surgery. Stopping even for a few days before surgery can help. If you want to quit, call our Tobacco Treatment Program at 212-610-0507. You can also ask your nurse about the program.

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 may have it. If you use a breathing machine (such as a CPAP) for sleep apnea, bring it with you the day of your surgery.



Presurgical Testing

Before your surgery, you will have 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 PST appointment, you will meet with a nurse practitioner who works closely with anesthesiology staff (doctors and specialized nurses who give you medication to sleep during 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 in on page 12 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)

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 or to learn more, 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.

Do Breathing and Coughing Exercises

Practice taking deep breaths and coughing before your surgery. You will be given an incentive spirometer to help expand your lungs. For more information, please read *How to Use Your Incentive Spirometer*, located in the "After Your Surgery" section of the guide. If you have any questions, ask your nurse.

Exercise

Do some form of exercise every day. 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.



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 of the guide.

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 of the guide.

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 of the guide.

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 Monday, you will be called on the Friday before. The admitting clerk will tell you where to go on the day of your surgery. This will be either the Surgical Day Hospital (SDH) or the Presurgical Center (PSC). 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:			
Both lo	cations are at 1275 York Avenue between East 67 th and East 68 th streets.			
☐ Surgical Day Hospital (SDH)				
	M elevator to 2 nd Floor			
	Presurgical Center (PSC)			
	B elevator to 6 th Floor			

Shower

Wash yourself with soap and water the night before your surgery.

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.

Morning of Your Surgery

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
76 1:		
Medication	Dose	Doctor/Nurse
Medication	Dose	Doctor/Nurse
Medication	Dose	Doctor/Nurse
Do not got an drink or	withing the manning of your gung	town This includes water hard condu
	edication as instructed with a sig	gery. This includes water, hard candy,
and same take any m	carcadon as misu acted with a sip	or which



Things to Remember

- Do not put on any lotion, cream, deodorant, makeup, powder, or perfume.
- 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.
•	
•	



□ A button-down or loose-fitting top.
$\hfill\Box$ Only the money you may need for a new spaper, bus, taxi, or parking.
$\hfill\Box$ A CD player and CDs or an iPod, if you choose. However, someone will need to hold these items for you when you go into surgery.
\square A case for your personal items, such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, and religious articles such as a rosary.
$\hfill \square$ Your Health Care Proxy form, if you have completed one.
$\hfill\Box$ This guide. Your healthcare team will use this guide to teach you how to care for yourself after your surgery.
П

Parking When You Arrive

Parking at MSK is available in the garage on East 66th Street between York and First Avenues. To reach the garage, enter East 66th 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 69th Street between First and Second Avenues, East 67th Street between York and First Avenues, and East 65th 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.

E 69th St E 68th St E 67th St F 66th St E 65th St

P = Parking

M = Memorial Sloan Kettering

Get Dressed for Surgery

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

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. Your nurse will insert 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.

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 of the guide.

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 may also put an epidural catheter (thin, flexible tube) in your spine (back). This will be used to give you pain medication. The medication is delivered into your epidural space, which is the area just outside your spinal cord. It will give you pain relief with fewer side effects, such as nausea, vomiting, and sleepiness. This is similar to what is given to women when they have babies.

The length of your surgery depends on which type of surgery and incisions you have. Your doctor will discuss this with you before your surgery. Once your surgery is finished, your incisions will be closed with staples or stitches.

Notes		

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

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

Advil®	Children's Motrin®	Indomethacin	Mobic [®]	Piroxicam
Advil Migraine	Clinoril®	$\operatorname{Indocin}^{\circledR}$	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	Fenoprofen	Mefenamic Acid	Nuprin®	Voltaren®
Pain Relief	Flurbiprofen	Meloxicam	Orudis®	
Formula Caplets	Genpril®	Menadol®	Oxaprozin	
Celebrex	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

Acetaminophen (Tylenol $^{(8)}$) is generally safe to take during your cancer treatment. It doesn't affect platelets, so it will not increase your chance of

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

Acephen®	Datril®	Norco®	Tylenol with
Aceta® with Codeine	Di-Gesic®	Panadol®	Codeine No. 3
Acetaminophen	Esgic®	Percocet®	Vanquish
with Codeine	Excedrin P.M.	Repan	Vicodin®
Aspirin-Free Anacin	Fiorcet®	Roxicet®	Wygesic®
Arthritis Pain Formula	Lorcet®	Talacen®	Zydone®
Aspirin-Free	Lortab	Tempra [®]	
Darvocet-N 100®	Naldegesic®	Tylenol	

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.				

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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.

Gingko (also known as Gingko 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 <u>mskcc.org/aboutherbs</u>.

You can also download the Memorial Sloan Kettering About Herbs app from the Apple App Store at <u>itunes.apple.com/us/app/about-herbs/id554267162?mt=8</u>.

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 рм, during the		
weekend, and on holidays, please call	If		
there's no number listed, or you're not sure, call 212-639-2000.			

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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 1st floor. While you are waiting, here are some things you can do:

- Food and drinks are available on the 1st 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 1st 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 15th 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 РМ at After 5:00 РМ, during	the .	
weekend, and on holidays, please call	If	
there's no number listed, or you're not sure, call 212-639-2000.		

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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

After your surgery, you will be taken to the Post Anesthesia Recovery Unit (PACU). Your family and friends can visit you in the PACU after your surgery.

While you are in the PACU, a nurse will be monitoring your pulse, blood pressure, and breathing. You will also be wearing boots that squeeze and release your legs to help your circulation after surgery.

You may have one or more of the following:

- A patient-controlled analgesia (PCA) device. PCA uses a computerized pump to deliver pain medication into your IV or epidural space (in your spine). For more information, please read *Patient-Controlled Analgesia (PCA)*, located in this section of the guide.
- A temporary nasogastric (NG) feeding tube to give you nutrition, if necessary.
- Drainage tubes to help drain fluid from your surgical wound.
- A urinary catheter (small, flexible tube) to drain urine from your bladder.
- · A facemask and humidifier to keep your airways moist.

While you are in the PACU, you will begin to do the coughing and deep breathing exercises your nurse taught you. These help to prevent pneumonia. You will stay in the PACU for 6 to 12 hours or overnight. You will then be taken to your room on the inpatient unit. You will continue doing the coughing and deep breathing exercises. You will also be helped out of bed to a chair the first day after your surgery.

You will begin to get pain medication by mouth on or about the second day after your surgery. At this time, your PCA will be taken out, if you had one. You will begin to walk around the unit. If you have an NG feeding tube, it will be removed 3 to 5 days after your surgery. You will then begin to eat soft foods.

Your nurse will teach you how to do oral irrigations. These help keep your mouth clean, moist, and comfortable. He or she will also begin to spray your mouth with salt water daily. Your nurse will teach you how to care for your surgical incision(s). If you had a skin graft or reconstruction, you will also learn how to care for your donor site.

Discharge and Self-Care

Your healthcare team will prepare you for your discharge. Your doctor will give you a prescription for pain medication. Your nurse will teach you the self-care you will need to continue at home. This will involve irrigating your mouth and nose, if necessary. You will also learn exercises to prevent trismus. This is the inability to open your jaw that can develop from scarring or changes in the muscles around the jaw. For more information, please read the resource *Trismus*, located in this section of the guide.

Common Questions

How long will I be in the hospital?

Your doctor or nurse will give you an estimate of how long you will be in the hospital.

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.

You will be given 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.

- Call your doctor if the pain medication prescribed for you doesn't relieve your pain.
- Do not drive or drink alcohol while you are taking prescription pain medication.
- 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 it to get worse.

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.

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 can I eat?

For the first meal after your surgery, you will be given clear liquids. You will slowly go from a puréed diet to a mechanical soft diet, which you will continue to follow after you are discharged. For more information, read the resource *Eating Guide for Puréed and Mechanical Soft Diets*, located in this section of the guide.

When will my staples or stitches be removed?

If you stay in the hospital for longer than I week, some or all of your staples or stitches will be removed before you leave.

If you stay in the hospital for less than 1 week, your staples or stitches will be removed during your first follow-up appointment with your doctor after your surgery.

If you had radiation therapy to the neck before your surgery, your staples or stitches will stay in place for 2 to 3 weeks.

How do I care for my incisions?

Your doctor or nurse will give you and your caregiver instructions on how to care for your incisions before you leave the hospital.

Call your doctor or nurse immediately if you develop any of the following signs of infection:

- 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

When can I shower?

You can shower 24 hours after your drain is removed from your neck. When showering, do not apply direct water pressure to your incision. Rather, allow the soap and water to run over your incision. Gently pat your incision dry with a clean towel.

When can I resume my normal activities?

Your doctor and nurse will tell you when you can resume your normal activities during your first follow-up appointment after your surgery.

When can I resume sexual activity?

Ask your doctor or nurse when you can resume sexual activity.

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

Your doctor will discuss your long-term follow-up care with you. Your first appointment after your surgery will be in about 1 week.

Your dental and prosthetic team will follow you after your surgery. If you have an obturator, they will adjust it as needed to help restore your ability to chew, swallow, and speak. If needed, a facial prosthesis will be made to restore your appearance.

If necessary, a speech pathologist from the Speech and Hearing Center will work with you. He or she treats:

- Voice loss
- Swallowing disorders
- Impaired speech

Your speech pathologist will help you regain as much of your speech and swallowing as possible.

If you have any questions or concerns, you can contact your doctor's office at any time after you have been discharged from the hospital.

When will I get my test results?

The tumor (and lymph nodes, if they were removed) will be examined. The test results are usually ready in 1 week, but can take longer depending on the tests that will be done. Based on the results, you may need further treatment. Your doctor will discuss the results with you during your first follow-up appointment after your surgery.

How can I cope with my feelings?

The diagnosis and treatment of cancer can be a very stressful event. For many, it can be overwhelming at times. Each person who receives a diagnosis of cancer copes in his or her own way. You and your family will almost certainly have ups and downs. Many say it helps to concentrate on the small improvements you will see as the days and weeks go by.

Your treatment may change your appearance. This can be especially upsetting. There are many resources to help you and your family during your recovery. Some are here at MSK and others are in your community. Ask your doctor, nurse, or social worker about options. You may also want to speak with a head and neck cancer survivor. This can be arranged through our Patient-to-Patient Support Program. Most people find it very reassuring to see someone who has been through what they are facing.

The Resources for Life After Cancer (RLAC) Program provides support and education for people who are finished with treatment. To learn more about the programs they offer, call 646-888-8106 or go to: www.mskcc.org/experience/living-beyond-cancer/services-survivors.

Depression can occur at any time when you have a serious illness. It is important to recognize the symptoms. Help is available to treat and manage it. Signs of depression are:

- Prolonged feelings of helplessness and sadness
- Inability or difficulty to concentrate and/or carry out normal activities
- Change in mood
- Change in sleep pattern
- Change in appetite

If you have any of these symptoms and they last more than 2 weeks, tell your doctor or nurse.

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 doctor or nurse 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

How to Use Your Incentive Spirometer

This information will help you learn how to use your incentive spirometer.

An incentive spirometer will help you expand your lungs by encouraging you to breathe more deeply and fully. Using your incentive spirometer after your surgery, along with deep breathing and coughing exercises, will help keep your lungs active throughout the recovery process and prevent complications such as pneumonia.

A video demonstrating how to use your incentive spirometer can be found on the Memorial Sloan Kettering (MSK) website at:

www.mskcc.org/videos/how-use-your-incentive-spirometer

The first time you use it, you will need to take the flexible tubing with the mouthpiece out of the bag. Expand the tubing and connect it to the outlet on the right side of the base (see figure). The mouthpiece will be attached to the other end of the tubing.

To use your incentive spirometer:

- 1. Sit upright in a chair or in bed. Hold the incentive spirometer upright at eye level.
- 2. Exhale (breathe out) once slowly. Put the mouthpiece in your mouth and close your lips tightly around it.
- 3. Take a slow, deep breath in through your mouth. As you take a slow, deep breath, you will see the piston rise inside the large column. While the piston rises, the indicator on the right should move upwards. It should stay in between the 2 arrows (see figure). If the indicator does not stay between the arrows, you are breathing either too fast or too slowly.
- Mouth piece 3500 -3000-2500 2000 1500-1000 500 Marker Piston Flexible tubing

4000 -

Indicator

- 4. Try to get the piston as high as you can, while keeping the indicator between the arrows.
- 5. When you get it as high as you can, try to keep it at that level for 2 to 5 seconds or longer, if possible.
- 6. Exhale slowly, allowing the piston to fall all the way back to the bottom. Rest for a few seconds.
- 7. Take 10 breaths with your incentive spirometer every hour while you are awake, or as instructed by your clinician. Try to get the piston to the same level with each breath.
- 8. After each set of breaths, cough 3 times. This will help loosen or clear any secretions in your lungs.

■ Special Points

- If you feel dizzy at any time, stop and rest. Try again at a later time.
- If you had surgery on your chest or abdomen, hug or hold a pillow to help splint your incision. This will help decrease pain at your incision.
- Breathe through your mouth. If you breathe through your nose the incentive spirometer will not work properly. You can plug your nose if you have trouble.
- Keep the incentive spirometer clean by covering the mouthpiece when it is not in use.

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.		

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Patient-Controlled Analgesia (PCA)

This information will help you understand what patient-controlled analgesia (PCA) is and how to use your PCA pump.

Patient-controlled analgesia (PCA) helps you control your pain by administering your pain medication. PCA uses a computerized pump to deliver pain medication into a vein (intravenous, or IV) or epidural space (in your spine). Whether you have an IV PCA or epidural PCA depends on what you and your doctor decided was right for you. When you have pain, you simply press the button attached to the pump. The pump will deliver a safe dose that your doctor has prescribed. Only you should push the PCA button. **Family and friends should never push the button.**

How Medication is Given with PCA

The pump can be programmed to deliver your medication in 2 ways:

- As needed You get your pain medication only when you press the button. It will not allow you to get more medication than prescribed. The pump is set to allow only a certain number of doses per hour.
- Continuous You get your pain medication at a constant rate all the time. This can be combined with the as needed mode. That allows you to take extra doses safely if you are having pain.



Possible Side Effects

Pain medication delivered by the PCA pump can have side effects. Tell your doctor or nurse if you have any of these or any other problems:

- Constipation
- Nausea, vomiting
- Dry mouth
- Itching
- Changes in your vision, such as seeing things that are not there
- Drowsiness, dizziness, or confusion
- Weakness, numbness, or tingling in your arms or legs
- Difficulty urinating

Special Instructions

PCA is not right for everyone.

- People who are confused or cannot follow these instructions should not use PCA.
- If you have been told you have sleep apnea, tell your doctor. This may affect the way we prescribe your PCA.
- If you have weakness in your hands and may have trouble pushing the PCA button, talk with your doctor or nurse.

When using PCA, tell your doctor or nurse if:

- The medication is not controlling your pain.
- You are having side effects.
- Your pain changes, such as if:
 - It gets worse
 - You feel it in a new place
 - Feels different than before

Your doctor may be able to change the medication to one that may work better for you or give you fewer side effects.

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.		
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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).

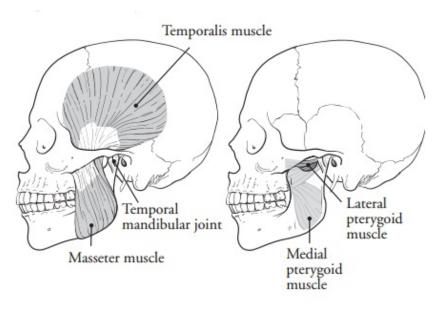


Figure 1

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 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).

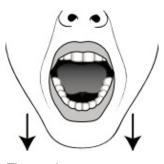


Figure 4

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



Figure 5

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



Figure 6

• 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

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

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

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



Figure 10

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



Figure 11

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



Figure 12

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



Figure 13

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

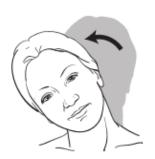


Figure 14

Chin tuck

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

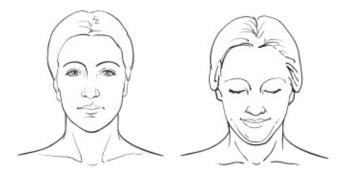


Figure 15

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 рм, during the		
weekend, and on holidays, please call	If		
there's no number listed, or you're not sure, call 212-639-2000.			

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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[®], Ensure Plus[®], Boost[®], or Boost Plus[®]

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

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

Breads

Pasta

- 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 supermarket 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 TM (10 ounces)	180	9	274	Yes
Ensure Plus or Ensure Complete TM (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	Milk, plain or well-blended yogurt without fruit pieces, buttermilk, evaporated or condensed milk, milkshakes, malts	Solid cheeses, regular cottage cheese, farmer cheese, pot cheese
	Puréed cottage cheese, thin ricotta cheese, mild or processed cheeses melted into a sauce	
	• Ice cream, frozen yogurt	
	Liquid nutritional supplements such as Ensure or Carnation Breakfast Essentials	
Vegetables	Vegetable juices, puréed cooked vegetables, baby food vegetables	All others, even well-cooked vegetables that don't require a lot of chewing
Fruits	Fruit juices and nectars	All others, including mashed banana
	Smooth applesauce, puréed fruits, baby food fruit	and canned fruits
Starches	Cooked cereals, Cream of Wheat®, Farina®, Cream of Rice®, oatmeal, hominy grits	• All others
	Whipped or smooth mashed potatoes Provided master may feel miss.	
Meat or Meat Substitutes	 Puréed pasta, puréed rice Strained or puréed meat, fish, and poultry Smooth egg salad, soufflés, hummus, 	All others, including scrambled, fried, poached, hard-boiled, or soft-boiled eggs
	or puréed beans	
Fats	Butter, margarine, sour cream, cooking fats and oils, gravies	• All others
	Whipped toppings, heavy cream	
Soups	Broth, bouillon	• All others
	Soups with puréed or strained vegetables	
	Strained or puréed cream soups	
	Puréed chicken noodle or chicken and rice soup	

Type of Food	Recommended	Excluded
Sweets and Desserts	Plain custards or puddings	All others, including anything made
	Sherbet, ice cream, frozen yogurt	with coconuts, nuts, or whole fruits
	• Jell-O®	(e.g., yogurt with fruit in it)
	Flavored fruit ices, popsicles, fruit whips, flavored gelatins	
	Clear jelly, honey, sugar, sugar substitutes	
	Chocolate syrup, maple syrup	
Beverages	All beverages	Any containing raw eggs
Miscellaneous	Salt, pepper, ketchup, mustard, mayonnaise,	• Nuts, coconuts, olives, pickles, seeds
	• Herbs, spices	
	• Syrups	
	*Avoid spicy or acidic items if you have mouth soreness.	

Mechanical Soft Diet

Type of Food	Recommended	Excluded
Milk and Dairy Products	Milk, buttermilk, eggnog, yogurt (plain and with fruit), milkshakes, evaporated and condensed milk, malts	• Hard cheeses
	Cottage cheese, soft cheeses like ricotta or farmer and pot cheese sauces, grated and shredded cheeses	
	Ice cream and frozen yogurt	
	• Liquid nutritional supplements such as Ensure or Carnation Breakfast Essentials	
Vegetables	Any well-cooked, diced vegetables, such as carrots, peas, green beans, beets, butternut or acorn squash, wax beans	Raw vegetables, stir-fried vegetables, fried vegetables, lettuce
	Chopped or creamed spinach	
	Puréed vegetables, baby food vegetables	
	Vegetable juices	

Type of Food	Recommended	Excluded
Fruits	Ripe bananas	• Fresh fruits, fruit skins, fruits with
	Any canned fruits	pits, dried fruits
	Any cooked fruits without the skin	
	(All must be mashed or diced into small pieces.)	
	Smooth applesauce, puréed fruits, baby food fruits	
	Nectars, fruit juices	
Starches	Any diced soft breads, such as soft rolls, muffins, soft French toast, pancakes	• Rye-crisps, dry crackers, popcorn, taco shells, Melba toasts
	Cakes, pies without crusts, pastries without nuts or dried fruits, soft cookies	Breads and muffins with seeds or nuts, pita bread, rye and pumpernickel breads, bagels, French or sourdough breads, toast
	• Dry cereals soaked in a small amount of milk	 Chow mein noodles Any cakes or breads made with nuts,
	White or brown rice	seeds, raisins, or dates
	• Casseroles	• Kasha (buckwheat), wild rice,
	Cooked cereals, Cream of Wheat, Farina, Cream of Rice, oatmeal, hominy grits, couscous	shredded wheat, granola
	Diced soft pastas or noodles, pasta salad, pastina, orecchiette	
	• Soft whole grains (i.e., barley, farro)	
Potato or Potato Substitutes	• Mashed, baked, or creamed potatoes, sweet potatoes	• Hash browns, fried potatoes, potato skins, French fries
Meat or Meat Substitutes	Ground, finely chopped tender meat or poultry with gravy	 Whole cuts or diced meat or poultry Hot dogs, sausage, knockwurst,
	Soft chicken salad, creamed tuna	bratwurst, pork chops, steak, bacon
	salad without celery, egg salad without celery	• Fried fish, haddock, halibut, tuna
	Diced meat loaf, meatballs, salmon loaf, or croquettes	 Crunchy peanut butter Chili with beans
	• Casseroles	
	Diced baked or broiled fish (fillet of sole, roughy, flounder, salmon)	
	Well-cooked beans, tofu	
	Scrambled eggs or diced hard-cooked eggs	
	Plain cheese quiche	

Type of Food	Recommended	Excluded
Fats	 Butter, margarine, cooking fats and oils Gravy, whipped toppings, salad dressings, mayonnaise Finely chopped olives 	• Nuts, almonds, cashews, peanuts, pecans, seeds, coconuts, whole olives
Soups	 Broth, bouillon Soups with puréed or strained vegetables, strained or puréed cream soups Diced chicken noodle soup 	Any soups with chunks of meat or crunchy vegetables
Sweets and Desserts	 Seedless jellies only, honey, sugar, sugar substitutes, syrup Ice cream, frozen yogurt, puddings, custards Pies without crust, pastries and cakes without seeds or nuts, soft cookies (all diced) 	 Any sweets and desserts with coconut, nuts, or dried fruits Granola bars Pies Chewy, crunchy, or hard candy Jelly or jam with seeds, preserves Crunchy cookies Licorice, taffy, caramel
Beverages	 Water, coffee, tea, carbonated beverages, hot cocoa, fruit punch, coconut water Gatorade[®], Pedialyte[®], Isopure[®] lemonade without pulp 	Any beverage containing raw eggs
Miscellaneous	• Salt, pepper, ketchup, mustard, herbs, spices, jelly	Avoid spicy/acidic items if you have mouth soreness

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	• Puréed banana	Soft, diced fruit without skin or peel
	Cooked cereal with milk	Cereal softened in milk or diced soft
	• Puréed cooked egg	pancake with syrup and butter
		Scrambled eggs
Mid-morning snack	Vanilla or flavored yogurt	Rice pudding
Lunch	Any puréed or strained soup	Vegetable barley soup
	• Puréed chicken salad	Chicken salad or egg salad
	• Puréed beans	• Diced, well-cooked vegetables
	• Puréed fruit	Canned peaches
Mid-afternoon Snack	• Ensure Plus	• Boost Plus
Dinner	• Puréed or strained soup	• Soup
	• Puréed meat or fish	Baked fish filet (boneless) with sauce
	Mashed potatoes	• Diced, soft potatoes
	• Puréed vegetables with olive oil or butter	Diced, well-cooked vegetables with olive oil or butter
	Applesauce	Canned, diced pears
Evening Snack	• Pudding	• Ice cream with diced, soft cookie

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 portionsized, 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 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

²/₃ cup of vanilla yogurt

²/₃ cup of vanilla ice cream or frozen yogurt

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 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 ½ cup of skim, 1%, whole, or fortified milk (you can also use ½ 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

1/2 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

1/2 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 3/4 cups of eggs

1/2 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 ½ 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

1½ 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.

1½ 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

½ 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 ½ 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

1½ pounds of lean ground beef or turkey 2 cloves of garlic, minced 1 cup of dry bread crumbs 1 egg, beaten ¼ 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 $9 \times 5 \times 3$ -inch loaf pan. Bake for $1\frac{1}{2}$ 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 ½ 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
1¼ 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 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 ½ 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

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)

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

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 $212\hbox{-}639\hbox{-}7622$

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

Notes	

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.

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

646-639-7020

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

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

877-621-7177

Provides travel to treatment centers.

American Cancer Society (ACS)

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

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

Cancer Care

www.cancercare.com

800-813-4673

275 Seventh Avenue (between West 25th & West 26th 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

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

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

866-328-1313

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

fertileHOPE

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

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

800-675-8416

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

Hospital Hosts

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

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

National Cancer Legal Services Network

www.nclsn.org

Free cancer legal advocacy program.

National LGBT Cancer Network

www.cancer-network.org

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

Needy Meds

www.needymeds.com

Lists Patient Assistance Programs for brand and generic name medications.

NYRx

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

888-477-2669

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

Patient Access Network Foundation

www.panfoundation.org

866-316-7263

Provides assistance with copayments for patients with insurance.

Patient Advocate Foundation

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

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

800-377-0928

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