

PATIENT GUIDE TO THORACIC SURGERY



MASSACHUSETTS
GENERAL HOSPITAL

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WELCOME

Thank you for choosing the Massachusetts General Hospital (MGH) for your care. We have written this guide to let you know what to expect with your surgery. You can also call your surgeon's office if you have any questions.

PREPARING FOR SURGERY

Some general points:

- If you can, we would like you to stop smoking completely at least 3 weeks before your surgery as it will reduce the chances of breathing problems after surgery. If you would like more information on how to quit smoking, please speak to your surgeon, primary care doctor or pharmacist. For more information on smoking cessation programs offered through Mass General, please call (617) 726-7443.
- Do not drink anything containing alcohol (wine, beer, liquor) at least 24 hours before the surgery.
- You should arrange for someone to be with you at the time of arrival to the hospital and at the time of discharge from the hospital.
- Ask your doctor if there are any medications you should stop before surgery
- Keep active before surgery as it helps to condition you to stay active postoperatively. You should continue walking as much as possible unless your doctor has given you specific instructions to do it.
- Practice deep breathing exercises to help you with relaxation as well as coughing and managing pain after surgery.
- Be realistic when planning for your recovery at home. It takes time to settle back into a routine schedule. You will feel tired.
- You may also shower with any soap marked “antimicrobial” before surgery to help lower your risk for infection after surgery by reducing the germs on your skin. Use the soap two days before and the day of your operation (i.e., once a day for 3 days).

BEFORE SURGERY

You will likely go to the surgeon's office to talk about your surgery. You will have a general physical exam. They will talk to you about your medical issues and medications. You may be asked to do more tests before surgery such as blood tests, electrocardiogram (ECG) and/or breathing studies.

Your surgeon may also set you up with a telephone call from our Pre-Surgery Screening Team. Your surgeon's office will tell you how and when this phone call evaluation will take place. You will need to **enroll in "PATIENT GATEWAY at this link:** <http://patientgateway.partners.org/public/> **before the phone call.**

The following items will be reviewed during the phone interview:

- Please be sure you update us of any allergies to medications, food, or environmental sources such as latex or adhesive tape.
- Review ALL your medications including:
 - pain medications
 - blood-thinning drugs, (aspirin, Coumadin, Xarelto, Eliquis, Pradaxa, Lovenox, Plavix, etc.)
 - steroids (prednisone)
 - diabetes medications (insulin pumps or injections, pills)
 - over the counter medications (including aspirin, ibuprofen, *Motrin, Advil, Naprosyn*)
 - herbs, botanicals and vitamins (mushroom extract, ginkgo biloba, turmeric, ginseng, and chamomile can affect blood clotting and should be discontinued a week before surgery)
- Some of these may need to be stopped or changed in advance of your surgical date.
- Be ready to tell us about your current health, activity level, and need for assistance with walking, vision and/or hearing. Any specific needs for handicap access, current isolation precautions, and dietary concerns can be addressed here as well. Members of the Anesthesia and Nursing staff are specially prepared to address these issues during and after surgery.

Please contact your surgeons' office if you would like assistance or have questions.

WEEK BEFORE SURGERY

Be sure you are clear about any adjustments to your regular medications before surgery and on the day of surgery. This is especially important if you are taking medicines for heart problems or diabetes.

- **Insulin:** You should have special instructions from your surgeon and/or the Pre-Screening Team about holding or cutting down your morning insulin dose since you will not have had any food or fluids. Patients who have insulin pumps will be advised of adjustments by the anesthesiologist prior to surgery depending on the schedule for your procedure.
- **Heart and blood pressure medicines:** Generally, these are taken on the morning of surgery unless you have been specifically instructed not to.
 - Do NOT take ACE inhibitors [lisinopril, enalapril, captopril, etc.]
 - Do NOT take ARB medications [losartan, Cozaar, Diovan, Benicar, Atacand, etc.]
- **Blood Thinners:** If you are taking drugs that are prescribed to delay clotting (Coumadin, Plavix, Aspirin) you will receive instructions for your specific situation.

DAY BEFORE SURGERY

It is normal to feel a little nervous before surgery. Try to have a calm and relaxing day and get a good night sleep the night before surgery.

Planning for your hospital stay:

- Please leave ALL valuables and cash at home. You will have to remove earrings, rings, jewelry, watches and hairpins.
- Please leave iPods, tablets, cell phones & computers at home. If you feel you will need these items, a family member can bring them in AFTER your surgery.
- We have the traditional hospital gowns and robes that will provide easy access to monitoring equipment and you will feel well covered.

NPO Guidelines for Surgical Patients

Day Before Surgery/Procedure

At 10 PM

- **Stop** eating all solid foods or dairy products
- **Stop** chewing gum, cough drops, breath mints and stop eating candy
- **Stop** all tube feedings
- *If your surgeon has provided you with specific diet instructions in preparation for your surgery/procedure, such as bowel prep instructions, please follow them carefully.*
- *Remember to drink clear liquids to stay well hydrated.*

After 10 PM

- **While you are awake**, please try to drink one or two tall glasses of clear liquids every one to two hours. You may drink any of following clear liquids from the list below.

Day of Surgery/Procedure

- **Two hours before scheduled arrival**, drink one to two tall glasses of clear liquids (ideally one marked with ®) from the list below to ensure you are adequately hydrated. After finishing it, please **stop** drinking.
- If you are **diabetic** and feel symptoms of a low blood sugar or your finger stick reading is low, please drink one of the clear liquids that contain sugar such as, apple juice, grape juice, or regular soda.

Approved list of clear liquids:

- Gatorade®
- Powerade®
- Clearfast®
- Pedialyte®
- Apple juice
- Cranberry juice
- Grape juice
- Water
- Regular or diet soda (such as Coke®, Sprite®, Pepsi®)
- Black coffee or black tea - (**NO milk, cream, or non-dairy creamer**)

Your surgical team wants you to drink fluids before surgery so that you have a better recovery. (We know that if you had surgery in the past, these instructions to drink fluids may be new to you)

DAY OF SURGERY

- BE SURE YOU BRING A PHOTO ID and LIST of current MEDICATIONS with you.
- Bring your CPAP or other machine for sleeping if you have one.

When you arrive at MGH, go to the Wang entrance where staff are ready to help you get to the Center for Perioperative Care (CPC) Wang 3rd floor, room 309.

On the day of surgery, if the person who drops you off at the hospital is planning to stay during your surgery, they can either use the Wang Valet or park in the Fruit Street or Parkman Street garages. MGH patients and visitors who use the valet or park in these garages get discounted parking rates. Parking tickets will be validated at the Cashier in the central payment office on the ground floor of each garage.

Plan to arrive 2 hours before your scheduled time for surgery.

When you arrive in the Center for Perioperative Care (CPC) at Wang 309:

- A receptionist will greet you, ask for your identification and confirm with your family member or companion where he/she can be reached after surgery.
- After you have checked in, a nurse will take you to the pre-operative area where you will meet members of your surgical team. Your family member or companion will wait in the large waiting room until they are called in to sit with you. The staff will help you change into hospital pajamas, place a name band, and check your temperature, pulse and blood pressure. They will ask you many questions that you may have answered before. These are often safety checks. PLEASE be sure to let them if you have taken any medications or drank any fluids before you arrived.
- The surgical and anesthesia teams will discuss any last questions you have about your procedure and have you sign a consent form. You will be given a combination of medications in the pre-operative area by the anesthesiologist. You may have an epidural catheter placed into your back if needed for your surgery. You will then be brought into the operating room and made comfortable. You will receive medicine to put you to sleep for surgery.
- This will be a long day for your companion or family member. The GRAY FAMILY WAITING AREA on the first floor of the GRAY building is staffed with volunteers who provide your family member with regular updates on your progress through the day.

AFTER SURGERY

The hospital can be a busy and noisy place. We want you to be aware of some of the things you may see, hear and experience while you are here.

You will wake up from surgery in an intensive care unit (ICU) or the Post Anesthesia Care Unit (PACU) also known as the “recovery room”. The nurses will remind you of what has happened and what is “connected to you”. The surgeon will let your family know that your surgery is complete and the hospital floor you will be moved to after surgery. At that time, the surgeon may also be able to give you a good sense of how long you will need to be in the hospital.

Once you are stable, you will be moved to Ellison 19, the designated Thoracic Surgical Unit at MGH. Here is where we will provide a balance of activity, pulmonary exercises and rest with pain management, so you can advance your activity and begin getting back to your usual daily activities.



A TYPICAL DAY ON ELLISON 19

Each morning you will see a Thoracic Fellow and additional team members between 6-7:00 am. They will talk to you about your plan of care. Nursing staff will help you get up and walk around even if it feels uncomfortable at first. Most patients will be given clear liquids to drink and then you will be given food to eat as you are able to handle it. Nurses will encourage you to sit up and get out of bed for meals and will help teach you how to care for any incisions. These activities are all common and very tiring. We will help you balance these activities with rest periods.

MONITORING

It is normal to have the nursing staff come in to take vital signs (temperature, pulse, blood pressure and respiration rate/oxygenation) every few hours right after any surgery. Your heart rhythm is also observed on a heart monitor at the bedside. Sometimes a “telemetry box” is attached to your clothing so we can watch your heart rate as you progress in your activities.

BREATHING

Your surgeon may have put in a chest tube to allow drainage of fluid from your surgical site and to help keep your lungs inflated after surgery. Chest x-rays are done to check the progress of your lungs and let your surgical team know when your chest tubes can be removed. At first you will need oxygen by mask or prongs that go in your nose. You can expect that you will no longer need oxygen when you are ready to go home. The staff will encourage you to take deep breaths and cough to keep your lungs clear. Nurses will routinely check your lung status, breathing patterns and oxygen needs with and without exercise.

PAIN CONTROL

After surgery, your goal should be to have tolerable pain, not zero pain. Right after surgery you may be given opioid medicine such as Oxycodone, but we will try to wean you off these before you leave the hospital. You may have heard that the use of opioids may lead to addiction, serious injury and death. There are other pain medicines that can help you with your pain such as Tylenol, ibuprofen, Aleve and Motrin, that will help you manage your pain.

ACTIVITY

Keeping active will help your recovery process. An important step in preventing complications and promoting your recovery after surgery is getting back to your usual activities of daily living. Nurses will be there to supervise all your activities to monitor safety, progress and rest periods you need.

Preventing falls in the hospital is very important. Please do not attempt to walk alone, as you are probably connected to many tubes and wires that make it easy to fall if not properly secured. Sometimes a Physical Therapist (PT) will be asked to see you if you need an assistive device such as a walker or cane. Occupational Therapists (OT) can teach you how to conserve energy during routine activities of daily living.

TEACHING, LEARNING AND DISCHARGE PLANNING

We will start planning for your discharge from the moment you arrive. Our Case Management team will visit you to address any concerns you may have after surgery. They will help you find appropriate places for rehabilitation or homecare services if you will need them.

Over the course of your hospital stay your nurses will be giving you specific instructions about how to continue your recovery at home. These instructions address some common concerns related to activity, nutrition, and elimination, care of your incision or wound, medications and reasons to call your doctor.

You can expect to be discharged home from the hospital when:

- your incision is clean and healing.
- your pain can be managed with medicine taken orally (or through your feeding tube)
- your bladder and bowel functions have returned
- you are eating without feeling sick
- you can move about and walk by yourself

If you are prescribed an opioid (such as oxycodone) for your pain, you will be given a limited number of tablets, since opioids have side effects and can lead to addiction. Usually over the counter medications like Tylenol and Motrin are enough to help you tolerate the pain after the first week or so.

Before you leave the hospital, the staff talk with you and your family about discharge instructions or anything you need to do when you leave the hospital to stay well. You will also receive a printed copy of the discharge instructions and any prescriptions you may need.

Please plan for a DISCHARGE TIME of 10am.

AT HOME

Call your surgeon's office for a follow-up appointment when you first get home. You will need to see your surgeon about 2-3 weeks after discharge for a routine post-operative checkup. At this appointment, your surgeon will discuss the most appropriate next steps for follow-up.

Be sure to call your surgeon for any of the following signs and symptoms:

- Severe pain that doesn't get better with your medications
- Shortness of breath
- Swelling of legs and ankles
- Drainage of thick cloudy fluid from your wound
- Sudden change in your voice
- Swelling in your chest, neck or face
- No bowel movement for 3 days or longer
- A faster heartbeat than usual
- Any new concerning symptom or physical change
- Redness and pain around the area where you had surgery

Although you do not need to take your temperature on a regular basis, if you have increased redness, swelling or drainage of the wound site or progressive localized pain, you can take your oral (mouth) temperature with a thermometer. If your temperature is more than 101° F (38.3° C), please call the surgeon.

After 5:00 pm, during the weekend, and on holidays, your call to the surgeon's office will connect with the answering service who will page your surgeon or the surgeon on call.

FIRST FEW WEEKS AT HOME

Most people feel tired when they leave the hospital and for several weeks after surgery. Even when you are told you can go back to doing your normal activities, you may not feel up to it. It is best to pace yourself as you return to your usual daily routine. It may take a while for you to get back to a regular routine. You will find that building gradually on what you could do in the hospital will help.

ACTIVITY AND PAIN MANAGEMENT GUIDELINES

Try to pace yourself and plan your activities so that you can get adequate rest. You may still experience pain at the incision site for several weeks after surgery. Take your pain medication to make the pain tolerable. Bigger incisions tend to be more painful. Holding a pillow firmly over your incision when coughing may be helpful.

If you are taking opioid pain medication after leaving the hospital, you may find it difficult to concentrate. Please **DO NOT DRIVE** while taking any pain medication.

Prescriptions for opioids cannot be refilled by phone or electronically. Please call ahead so we can make arrangements, either for us to mail a prescription or have someone pick up your prescription before you run out. After a couple weeks, we will refill opioid prescriptions only under extreme circumstances.

Please contact your surgeons' office if you would like assistance or have questions.

ACTIVITY GUIDELINES

ACTIVITY	WHEN TO RESUME
TAKING A SHOWER	<p>Avoid tub baths until you see your surgeon so your incision(s) heal completely.</p> <p>You may shower with running water on your incision site after the 5th postoperative day AND 2 days after your last surgical drain was removed. If you have drains or tubes in place, please check with your MD. The water should not be too hot because this can cause you to feel faint. Use a chair in the shower if you feel too weak to stand. You may gently wash with antibacterial, fragrance-free, liquid soap to take away dried material from around the incision. Be sure to dry the incision completely by gently patting instead of rubbing.</p>
DEEP BREATHING / COUGHING	<p>Continue to perform your coughing and deep breathing exercises at least 4 times a day to help keep your lungs clear.</p> <p>Take 3-4 deep breaths followed by a forceful cough. Try to schedule your pain medication about a half hour before exercises.</p>
WALKING	<p>Try to stay as active as you can. Use your pain medication regularly so you can move around comfortably. Continue to take daily walks gradually increasing the length of time to 20-30 minutes per walk, 2-3 times a day. Be sure to rest between activities. Avoid prolonged sitting.</p>
LIFTING	<p>Avoid heavy lifting (no more than a gallon of milk or approximately 5 lbs.), shoveling, raking, vacuuming, and lifting small children for at least six weeks. You may do light housework if you feel up to it. If you have had a VATS or a thoracotomy, actively move your arm and shoulder through a normal range of motion several times a day to prevent it from becoming stiff.</p>
SEXUAL ACTIVITY	<p>You may resume sexual activity when you feel comfortable, unless your doctor has instructed otherwise.</p>
DRIVING	<p>Do not drive until you have completely stopped taking opioid pain medicine and no longer have pain from your incision, weakness, or fatigue (2-4 weeks).</p>
RETURNING TO WORK	<p>Be sure to discuss with your surgeon during your follow-up visit after surgery.</p>
TRAVEL	<p>Be sure to discuss your plans to travel with your nurse and/or surgeon after surgery</p>

MEMBERS OF YOUR CARE TEAM

Surgeon	Also referred to as the attending physician or MD who will oversee all aspects of your care and surgical procedure
Chief Thoracic Fellow	Expert surgeon with extensive surgical training (8 - 10 years) specializing in Thoracic Surgery. They are available to supervise your care 24 hours a day and are in close contact with your surgeon about your care.
Thoracic Surgery Fellows	Surgeons who have completed their full surgical residency and are now pursuing specific training in cardiothoracic Surgery (2.5 years)
Surgical Residents	Graduates of medical school who are enrolled in the 5-year surgical training program at MGH
Nurse Practitioners (NP)	Registered nurses (RN) who have completed advanced education (a minimum of a Master's Degree) in the diagnosis and management of common medical conditions. They are nationally certified and licensed to practice medicine with physician collaboration
Physician Assistants (PA)	Physician Assistants (PA) are educated about the practice of medicine in accredited programs. They are nationally certified and licensed to practice medicine with physician collaboration.
Nursing Director	RN who provides administrative oversight on the patient care unit and is responsible for assuring that there is appropriate staffing and resources available. This individual also collaborates with other departments within hospital administration.
Clinical Nurse Specialist (CNS)	An advanced practice nurse who provides clinical oversight and consultation to staff nurses for the care of complex patients and helps to coordinate and manage the transition of such patients when other services are required.
Registered Nurses (RN)	Staff nurses specially trained in the care of Thoracic Surgery patients. They help patients incorporate the prescribed treatment plan into a daily routine and assist patients in becoming more independent in caring for themselves. The RN will help you transition home with the necessary teaching and supports.

MEMBERS OF YOUR SURGICAL CARE TEAM

Patient Care Associates (PCA)	Trained staff who are certified to carry out various aspects of patient care under the supervision of an RN.
Physical Therapists (PT)	Members of the Rehabilitation Department with specialized expertise in helping patients who are limited physically and have specific challenges moving around and caring for themselves. They also assist with airway optimization through clearance strategies and help determine any potential rehabilitation needs.
Occupational Therapists (OT)	Members of the Rehabilitation Department with specialized expertise in more specific functional and adaptive needs to facilitate independence beyond the hospital environment.
Speech & Language Pathologists (SLP)	Clinicians who address concerns with speech and swallowing issues which may include swallow testing with radiology.
Dietitians	Regulated healthcare professionals licensed to assess, diagnose, and treat nutritional problems. They serve as consultants to evaluate nutritional needs and any special diets while you are in the hospital and after discharge.
Respiratory Therapists (RT)	Clinicians available to assist with oxygen, artificial airway concerns and other special respiratory treatments.
Pain Service	Anesthesiologist MD who monitors the use of patient controlled analgesia (PCA) IV medication or epidural catheter medication from the operating room to the care unit. The PAIN Service will be checking in to be sure that you are comfortable with the dose, medication and delivery method being used.
Case Managers	RNs who evaluate & coordinate the care needs you may have after discharge and identify available resources in your community. This could include outpatient services at home, in a skilled nursing facility or rehabilitation hospital.
Social Services	Licensed individuals available to provide support and assist you and your family with needs relating to home or family issues and safety.
Chaplain Service	Spiritual resources for religious affiliations are available through the MGH Chaplaincy Service.

On behalf of your Thoracic Care Team, all of us wish you the best of health and a comfortable stay at the MGH.

Sincerely,

The MGH Thoracic Surgery Team

Dr. Douglas Mathisen

Dr. James Allan

Dr. Hugh Auchincloss

Dr. Dean Donahue

Dr. Henning Gaissert

Dr. Michael Lanuti

Dr. Christopher Morse

Dr. Ashok Muniappan

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Jennifer Maher, NP

Sharon Taylor, NP

Jennifer Webster, NP

Emily Viator, NP