

A GUIDE TO ENHANCING YOUR RECOVERY AFTER OPEN SURGERY

Massachusetts General Hospital
Division of Gynecology Oncology

This pamphlet is designed to help you understand and prepare for your surgery. Please read it thoroughly and review it with your family as well as your clinician prior to the surgery and bring it with you on the day of the surgery.

Information about my surgery

Date of Surgery:		
Time of Surgery:		You must arrive 2 hours before scheduled surgery time

Office Number:	617-724-4800 option 3	
Your Surgeon(s):		

***STOP ALL SOLID FOOD AT 10PM the night before surgery; patients undergoing a bowel prep must stop all solid food after breakfast the day before surgery.**

***You may have clear liquids up to 2 hours before Surgery (see below for details)**

Notes:

The day before surgery, please follow your surgeon’s prescribed diet. If you do not have one, please eat and drink as you normally would. Please be sure you are well hydrated.

If you have diabetes and your blood sugar is low or you start to feel symptoms of low blood sugar, please drink a clear liquid with sugar, such as apple juice, grape juice or regular soda. If this does not help, please drink or eat any liquid or fluid that will raise your blood sugar. No matter what, it is better to delay your surgery than to ignore a low blood sugar.

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Introduction

This pamphlet is part of the Mass General Brigham Healthcare System Gynecology Oncology Surgery ERAS (Enhanced Recovery After Surgery) program which is now the standard practice for all GYN scheduled open hysterectomy patients in the Partners Healthcare System and affiliated hospitals.

What is the ERAS Program?

This program is different from the traditional approach to surgery and has been shown to improve patient recovery after surgery along with reducing complications; reducing the number of days you stay in the hospital and reducing readmissions to the hospital after surgery. We want you, the patient, to also be an active participant in the recovery process. The overall goal is for you to have a better surgical experience and get back to normal as soon as possible. With your help, we can achieve these goals.

This program is designed to keep you actively involved in your recovery prior to and after your surgery. This guide is divided into two stages:

1. Before Your Surgery
2. After Your Surgery

Each stage of this program is tailored to minimize your pain, avoid complications, and allow for earlier resumption of food and activity.

How long will I be in the hospital?

If you are having open surgery and you do not have any problems after your procedure, you may go home as soon as the next day or two after your surgery. Because we perform many types of open surgery for many different reasons, your individual stay may be longer. The goal is to be discharged as soon as possible, as increased length of stay in the hospital is linked to increased postoperative complications.

Before Surgery

How can I prepare for my surgery?

Prior to Surgery

1. **Exercise** improves the body's response to stress and improves fitness, which aids in recovery. If you do not exercise regularly, it is advised to start slowly. Exercise does not need to be strenuous, even 15 - 30-minute walks daily are better than not exercising.

2. Eating a mixed healthy **diet** is advised in the weeks leading up to the surgery. However, in the days leading up to surgery, you may include high carbohydrate foods (potatoes, pasta, rice etc. which allow your body to "carbo load", and have an energy reserve, just like marathon runners do prior to a race.

It is strongly suggested that you **stop smoking** completely at least 3 weeks before your surgery, as it will reduce the chances of lung complications during and after surgery and improve your recovery. If you would like more information on how to quit smoking please speak to your doctor, nurse or pharmacist.

Avoid consumption of **alcohol** at least 24 hours (ideally a month) before your surgery.

3. **Plan ahead.** Arrange for someone to accompany you at the time of admission and at the time of discharge. Make prior preparations at home for your arrival after surgery, make sure there is enough food and supplies. You should be able to walk and eat and care for yourself as usual, but you might need some extra assistance initially from family or friends, especially to avoid strenuous tasks immediately after your surgery like laundry, cleaning, grocery shopping, etc.

Pre-Op Phone Calls

Before your surgery, you will be receiving **2 phone calls** by different members of the surgical team who will be going over different parts of your care:

- ❖ **Phone call from a member of the anesthesia team:**
 - This phone call will be scheduled ahead of time to ensure that you are available to take this call.
 - During this call, a provider will:
 - Review which medications you should take on the day of your surgery and which, if any, need to be stopped prior to surgery.
 - Ask questions to assess your health and explain the surgery process.

- ❖ **Phone call from Surgeon's Surgical Coordinator:**
 - 1-3 days prior to surgery you will receive a call to:
 - Finalize your surgery time and confirm exactly what time you need to arrive to check in.

Please make sure you look over the task list that is included in this packet.

- ❖ This includes:
 - Instructions for Chlorhexidine bath/shower
 - Instructions for Mechanical bowel prep (Golytely)
 - Instructions for eating and drinking on day prior to surgery
 - Instructions for oral antibiotics prior to surgery
 - Instructions for taking a carbohydrate drink on the day of surgery

If you still have additional questions after reviewing these instructions, please contact your surgeon's office.

Pre-Operative Kit

You will receive a pre-surgical kit either by mail at your home address or from your physician's office with the following included:

- a. Written instructions
- b. One bottle of Chlorhexidine wash (i.e., Hibiclens, Dyna-Hex)
- c. Two bottles of the Carbohydrate Drink

Carbohydrate Drinks

Please follow the instructions in the pamphlet included in the kit regarding drinking of the carbohydrate drink. **Do NOT** follow the instructions listed on the bottles themselves.

Please remember that this is not a bowel prep, so you do not need to be worried about being close to a bathroom.

If you are diabetic, please follow your recommended diet and do not consume the carbohydrate drink as it may increase your blood sugar.

Morning medications can be taken with a small sip of water on the morning of surgery.

Consume the carbohydrate drink provided starting 4 hours before and complete or stop drinking 2 hours before surgery.

Consuming a Pre-hydration drink before surgery will make sure the sugar level in your blood is more consistent during the surgery which allows you and your bowel to recover faster and heal more quickly.

In addition, if your surgeon thinks there is any chance that they will perform bowel surgery, you will also be prescribed a bowel prep kit. This mainly affects patients with Ovarian Cancer.

Bowel Prep Kit

- If there is potential for bowel surgery, in addition to the Pre-Op kit, your surgeon will prescribe you a bowel prep. You will pick this up at the MGH Outpatient pharmacy located on the Main floor of the Wang Building.
- You will either be prescribed Kit #1 or Kit #2 depending on your allergies. The only differences between these kits are the antibiotics that are included.

- You will also find a pamphlet in the kit, which contains a road map for you to follow, including day-by-day instructions.

Possible additional visit prior to surgery:

If you are having a surgery that will require an ileostomy or colostomy, you may also have an appointment with the wound care ostomy nurses for teaching prior to your surgery.

Chlorhexidine wash

It is recommended that you shower or bathe daily and thoroughly with the provided Chlorhexidine wash as directed below:

- If you were tested for STAPH and are positive, defer to instructions provided by your surgeon's office for the use of Chlorhexidine wash and mupirocin nasal ointment. Your doctor will let you know if you need additional testing.

Using this wash will help prevent infections from occurring after surgery. Avoid shaving the abdomen or groin area.

Do not apply powder, lotion, deodorant, or hair products after the third shower (i.e., on the day of your surgery).

Do not use Chlorhexidine on your head, face, and genitals.

Do not use if you are allergic to **Chlorhexidine**. If allergic speak to your doctor about using an antibacterial soap instead.

Chlorhexidine wash shower instructions:

- 1) Use Chlorhexidine wash provided to you instead of regular soap. Do Not Use Both.
- 2) Shampoo/condition your hair as you normally do before use of the Chlorhexidine.
- 3) Rinse your body thoroughly with water.
- 4) Turn the water off to prevent rinsing the Chlorhexidine wash off too soon.
- 5) Wash from the neck downwards. Be especially careful to wash the surgical site of your operation. Be sure to get in your belly button- you can use a Q-Tip as needed to help with this.
- 6) Wash your body gently for 5 minutes.
- 7) Allow the Chlorhexidine to dry on your skin for 1 minute before rinsing off.
- 8) Turn water back on, rinse well, and pat dry with a clean towel.

For patients WITHOUT a bowel preparation

Eat a healthy well-balanced breakfast, lunch, and dinner on the day before surgery.

It is critical that you not eat any solid foods within 8 hours of your surgical start time. This minimizes your chance of anesthesia complications. We ask that all patients stop eating at 10 pm the night before your surgery. Please DO NOT violate this instruction.

Even if you are not eating solids, you may continue to drink clear liquids until 2 hours before your check in at the hospital. A clear liquid is any liquid you can see through (Dairy drinks, including milk and yogurt-based, and orange juice are **NOT** clear fluids.)

***NOTE:** Please follow these instructions carefully, if you consume solid foods or non-clear liquids during this period this may jeopardize the effectiveness of your surgery and affect your recovery. In addition, eating or drinking milk within 8 hours of surgery will generally cause your surgery to be cancelled.*

TASK LIST FOR PATIENTS <u>WITHOUT</u> A BOWEL PREPARATION	
Two Days Before Surgery	
Chlorhexidine Body Wash *If you were tested for STAPH and are positive, defer to instructions provided by your surgeon's office for the use of Chlorhexidine wash and mupirocin nasal ointment. Your doctor will let you know if you need additional testing.	
One Day Before Surgery	
Chlorhexidine Body Wash	
OK to eat breakfast, lunch, and dinner	
At 10 pm: <ul style="list-style-type: none"> ❖ Stop eating all solid foods or dairy products ❖ Stop chewing gum and stop eating candy Please then consume CLEAR LIQUIDS ONLY- See allowed Clear Liquids Below <i>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.</i> Please keep drinking clear liquids throughout the evening, stay hydrated	
<u>ALLOWED</u> Water Juices (Without Pulp) Gatorade ® (no red) Black Tea or Black Coffee (No Milk/Cream)	<u>NOT ALLOWED</u> Solid Foods / Milk / Yogurt Dairy Based Drinks (Smoothies) / Cream Orange Juice / Soy Milk Almond/Nut Milk
Before going to bed: Drink 20 - 24 ounces of Gatorade (no red)	

Day of Surgery

Chlorhexidine Body Wash

Starting 4 hours before Surgery, you should drink the 2 bottles from your kit mailed to your home or provided by your surgeon's office. You must stop drinking 2 hours before surgery.

Drinking a clear carbohydrate drink before surgery helps your body to respond better to the stress of surgery.

If you are diabetic, please follow the recommended diet and do not consume the carbohydrate drink as it may increase your blood sugar.

If you have forgotten to drink clear liquids, that is OK. Do not drink anything at this time, we will give you clear liquids through an IV when you arrive to the hospital.

Do not void before you check in for your surgery. You may be asked to give a urine sample if you are younger than 55-year-old. (You will not be asked for a urine sample if you have had a hysterectomy and/or had your fallopian tubes and ovaries removed in the past)

For patients WITH a bowel preparation

Eat a healthy well-balanced breakfast on the day before surgery.

Do **NOT** eat any solid food **AFTER** breakfast on the day **BEFORE** Surgery. You may only drink clear liquids for the rest of the day. A clear liquid is any liquid you can see through (Dairy drinks, including milk and yogurt-based, and orange juice are **NOT** clear fluids.)

Mechanical Bowel Prep (Laxative)

Please follow the instructions given to you when you pick up your ERAS kit from the MGH pharmacy. These instructions are also listed below. The bowel preparation gives you loose, watery stools. Therefore, it is important to replenish the fluid you are losing due to the laxative. This will also prevent any dizziness, headaches or nausea. Drink clear fluids as described in the section below, try to avoid fizzy or soft drinks in this phase as they do not hydrate as well as other fluids like water or juice. The Golytely is provided for free in the bowel prep kit. If you are worried that you may not be able to drink that much fluid, there are other options that can be purchased from the pharmacy which require you to drink less (but are more expensive). Please call your surgeon's office if you are interested in an alternative prep.

To make the GoLYTLEY more palatable, you can chill it and add a small amount of lemon or lime concentrate or Crystal Light packets to help flavor this drink.

Oral Antibiotics

You will need to take 2 different oral antibiotics the evening before your surgery. These antibiotics are included in the kit you will pick up from the MGH pharmacy.

If you are taking a “statin” medication i.e. atorvastatin (Lipitor) or simvastatin (Zocor), please stop this medication the day before surgery since it is not compatible with erythromycin

***NOTE:** Please follow these instructions carefully, if you consume solid foods or non-clear liquids during this period this may jeopardize the effectiveness of your surgery and affect your recovery, or your surgery will be cancelled.*

Consuming a pre-hydration drink before surgery will make sure the sugar level in your blood is more consistent during the surgery which allows you and your bowel to recover faster and heal more quickly.

TASK LIST FOR PATIENTS WITH A BOWEL PREPARATION	
Two Days Before Surgery	
Chlorhexidine Body Wash <ul style="list-style-type: none"> If you were tested for STAPH and are positive, defer to instructions provided by your surgeon's office for the use of Chlorhexidine wash and mupirocin nasal ointment. Your doctor will let you know if you need additional testing. 	
One Day Before Surgery	
Chlorhexidine Body Wash	
OK to eat breakfast (This will be your last solid meal of the day) Please then consume CLEAR LIQUIDS ONLY- See allowed Clear Liquids Below DO NOT EAT ANY FOOD AFTER BREAKFAST Please keep drinking clear liquids throughout the evening, stay hydrated	
<u>ALLOWED</u> Water Juices (Without Pulp) Gatorade ® (no red) Black Tea or Black Coffee (No Milk/Cream)	<u>NOT ALLOWED</u> Solid Foods Milk Yogurt Dairy Based Drinks (Smoothies) Cream Orange Juice Soy Milk/Almond/Nut Milk
12 pm- 4 pm Drink/Start GoLYTLEY *You must finish this before Midnight*	
5 pm	Neomycin 1000 mg Metronidazole 500 mg (Erythromycin 500 mg if you have a Flagyl allergy)
6 pm	Neomycin 1000 mg Metronidazole 500 mg (Erythromycin 500 mg if you have a Flagyl allergy)

8 pm	Neomycin 1000 mg Metronidazole 500 mg (Erythromycin 500 mg if you have a Flagyl allergy)
Before going to bed: Drink 20 - 24 ounces of Gatorade (no red)	
Day of Surgery	
Chlorhexidine Body Wash	
<p>Starting 4 hours before Surgery, you should drink the 2 bottles from your kit mailed to your home or provided by your surgeon's office. You must stop drinking 2 hours before surgery.</p> <p>Drinking a clear carbohydrate drink before surgery helps your body to respond better to the stress of surgery.</p> <p>If you are diabetic, please follow your recommended diet and do not consume the carbohydrate drink as it may increase your blood sugar.</p> <p>If you have forgotten to drink clear liquids, that is OK. Do not drink anything at this time, we will give you clear liquids through an IV when you arrive to the hospital</p> <p>Do not void before you check in for your surgery. You may be asked to give a urine sample if you are younger than 55-year-old (you will not be asked for a urine sample if you have had a hysterectomy and/or you have had your fallopian tubes and ovaries removed in the past)</p>	

Bowel preps are meant to clean out your intestines of any food or waste remnants. This helps to prevent contamination during your bowel surgery and reduces the chances of infections afterwards.

NOTE: *Please follow these instructions carefully, if you consume solid foods or non-clear liquids during this period this may jeopardize the effectiveness of your surgery and affect your recovery. In addition, eating or drinking milk within 8 hours of surgery will generally cause your surgery to be cancelled.*

On the Day of the Surgery (All patients)

When you arrive at the hospital:

- **Admission process:** Please enter through the main hospital entrance or Wang Ambulatory Care Center entrance. Proceed to the 3rd floor of the Wang building. You will be checking in at the Center for Peri-operative Care (CPC). Once you have checked in a liaison will bring you to the pre-operative holding area.

- **Pre-Operative area:** Here you will meet several members from the surgical team.
 - ❖ **Nursing:**
 - A nurse in the pre-operative area will help you prepare for surgery by going through this pamphlet with you and reviewing your checklist items
 - The nurse will also measure your vital signs and glucose level.
 - You will also meet the nurse who will be in the operating room.
 - ❖ **Anesthesia team:**
 - Will give medications by mouth to help prevent pain, nausea and vomiting.
 - Insert an IV line into your vein to give fluids, medications or blood needed during or after surgery.
 - Review options for pain management during and after surgery.
 - ❖ **Surgical team:**
 - Discuss your procedure and answer any questions or concerns.
 - Finalize consent forms.

The Anesthesiologist is responsible for looking after your vitals (heart rate, blood pressure, temperature and breathing), fluid and blood replacement if needed, as well as your general comfort, pain level during and after your surgery.

When you arrive at the hospital (cont.):

Operating room: You will be helped onto the operating room table by the team and made comfortable as we continue to prepare you for surgery.

- a. **IV lines** – another IV may be placed to help with administration of medications needed for surgery. These medications include antibiotics, pain medication, and nausea medication etc.
- b. **Urinary catheter** - A urinary catheter will be inserted into your bladder to drain urine. This catheter is usually removed in the operating room before you wake up. If you are having a more complex surgery, the catheter may stay in place for up to 72 hours. Occasionally, the catheter may stay longer but only in rare circumstances where bladder surgery occurs.
- c. You will be given anesthetic and put to sleep.
- d. You may also receive an epidural or nerve block, to help with pain management during and after surgery. This will be discussed with you by your anesthesiologist prior to your surgery.

An epidural involves injecting pain medication into an area near the spinal cord. This is done by the anesthesiologist. These medications work by numbing your nerves to provide pain relief in certain areas of your body. Epidurals can be used during surgery in combination with sedatives and anesthetic as well as on their own.

After Surgery

Recovery Room/ PACU

When your surgery is over you will be transported by the team to the post anesthesia recovery unit (PACU). You will likely still feel quite sleepy and disoriented. This is normal and related to the anesthesia you received during surgery. It will take some time for these medications to wear off.

You will spend at least 2 hours in the recovery room being monitored after surgery. During this time, you can expect most of the following:

- ❖ Nurses checking your vital signs frequently – blood pressure, heart rate, breathing and temperature, blood glucose level as well as your wound and dressing.
- ❖ Anesthesia team checking on your pain level.
- ❖ You may have an epidural in place for pain control and/or a special nerve block that covers the surgical incision
- ❖ Being kept on oxygen – either through your nose or a face mask
- ❖ Being attached to an IV for fluids and pain medications

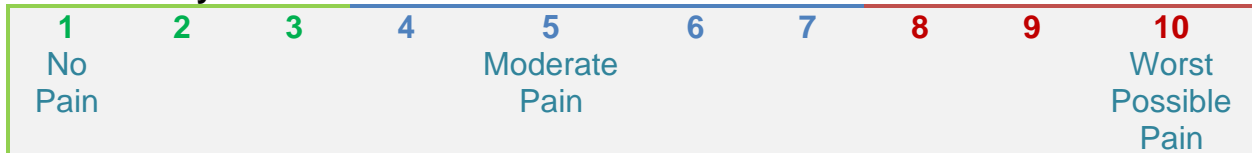
Once you are settled in the PACU, 1-2 family members/friends may be allowed to visit for a short time. When the team feels that you are stable and your pain is controlled, you will be transferred out of the recovery room to your assigned room on the floor.

Pain Control

Good pain control is an important part of the recovery process. You should expect to encounter some pain after surgery. There is no way to completely eliminate pain, but there are a variety of ways to help manage your pain. Please let your nurse or doctor know if you are in any pain or discomfort. Our goal is for you to have a pain score of 3 or less after surgery (see below)

Our goal is to keep your pain at a level that allows you to sleep and rest better, breathe more easily, start moving quickly after surgery, start eating sooner. This is important as it helps to prevent complications like blood clots and pneumonia. Walking can also be helpful for the return of bowel function and puts you on the road to recovery.

Pain Intensity Scale



Activity after surgery: When can I start moving, sitting, and walking?

You can start moving as soon as you wake up, however it is best to always progress slowly. Therefore, you should initially start with some basic leg exercises like wiggling your toes, stretching your legs out straight and rotating your feet. Do these for a few minutes every half hour, and it will help you get on your feet sooner. Stop doing this if it causes pain and let your nurse or doctor know.

- **3-6 hours after surgery:** You may be ready to sit at the edge of the bed or even a chair the same day as your surgery. Your nurse will help you, especially the first time you are getting up. You may also be able to take a short walk if you are feeling well. It is important to always have someone close by for assistance as you may be weak and unsteady on your feet.

Avoiding movement and lying in bed for an extended period can lead to complications like clots, bed sores and muscle weakness. This will impede your recovery.

- **On the day after surgery:** Starting the day after surgery, the goal will be for you to be out of bed at least 3 or 4 times a day and to take walks in the hallway. We also expect you to be sitting in a chair for meals. There will be someone to help you do this in the beginning until you are strong enough to get up on your own.

After open surgery, your bowel may stop moving for a short time. If this happens, you may feel nauseated and bloated and it may prolong your recovery. You can avoid this by walking frequently and chewing gum.

- **Breathing exercises:** It is important to be able to take deep breaths after surgery to prevent lung infections. The nursing staff will show you some breathing exercises that are helpful. It is also a good tip to take a few deep breaths during each commercial break while you are watching TV. Practice these brief breathing exercises at least 5-10 times an hour while you are awake.

Diet after surgery: When can I start eating?

With the ERAS program, we will be able to advance your diet starting the same day of surgery. As soon as you are awake and alert in the PACU/Recovery room you will be allowed to take small amounts of clear liquids by mouth.

1. Your physician will decide when it is appropriate to allow you to start drinking fluids. As a general rule, your IV fluids will be stopped within 6 hours after your surgery or as soon as you can tolerate at least 10 ounces of clear liquid by mouth.
2. If you are not experiencing any nausea and your abdomen is not distended/bloated, then you will be allowed to slowly advance to a regular diet based on your surgeon's discretion. Usually this is done by starting with some bland food, like toast and crackers before moving on to more solids. You do not need to eat if you feel full or bloated. It is more important to keep yourself hydrated with fluids.
3. Your physician may also ask you to bring gum from home to chew for 30 minutes three times per day after your surgery.

Urinary catheters: When will my urinary catheter be removed?

- For some patients, your catheter will be removed in the operating room before you wake up from surgery.
- For more complex surgeries and for patients with epidurals, we will try to remove your catheter on postoperative day 1 to minimize your risk of infection. If you are unable to urinate, the catheter will go back in for a period of time until your body is ready.
- For patients with surgery on the bladder, they may have to go home with a catheter.

The urinary catheter will be removed via something called the “backfill voiding trial”. The nurse will instill a measured amount of saline into your bladder through a channel in the catheter. This does not hurt. They will then remove the catheter and ask you to urinate. If you can urinate a large portion of the fluid, that means your bladder is working well and the catheter can stay out.

Once the urinary catheter is removed, you are free to go to the bathroom to urinate. You can expect it to take 6-8 hours before you feel the need to urinate, which is normal.

*Leaving the catheter in longer than necessary can lead to a urinary tract infection. Symptoms of a urinary tract infection include:
Pain with urination, Frequent urination, Feeling the need to urinate despite having an empty bladder, Fever, and pain in your side.*

Let your nurse or physician know immediately if you experience any of these symptoms.

Discharge from Hospital

When can I go home?

To be ready for discharge from the hospital, you must be doing all things listed below:

- ❖ Pain well controlled with pain medication by mouth
- ❖ Able to take in enough fluids to keep hydrated

If your pain is well controlled and you are drinking enough, you will be discharged to home, possibly on the day after surgery. Otherwise, you will be observed in the hospital until these goals are achieved.

Generally, it is **NOT** required for you to pass gas or have a bowel movement before you are discharged, though in certain scenarios your surgeon may want this to happen.

Note: Please plan appropriate arrangements for transportation from the hospital and care at home. Your team will let you know the day prior to discharge if they think you are ready. Check out time is at 10:00 am. If your ride unable to be at MGH at this time, please don't worry. We will help you get comfortable in one of our waiting rooms to await their arrival.

What happens when I go home?

Your surgeon's nurse will call you the day after you are discharged.

Your discharge paperwork will include your prescriptions, how to take them, things to watch for and all the relevant contact information. If you have a question during routine business hours, please call the clinic number provided and ask to speak to a nurse. If you have an emergency and it is after hours, you can either page the physician on call or come to the emergency room to be seen.

Pathology reports come back within 7-10 business days after surgery. The office will contact you as soon as we have these and your treatment plan.

While we know that having surgery can be a stressful event, we are honored to be your care team. We look forward to working with you to make your surgery the best experience possible. Should you have any concerns or questions after reading this book, please contact your surgeon's office.