

Preparing for Your Surgery

Your History and Physical Exam



Before your operation, you may have an appointment for a “pre-operative history and physical exam”. This appointment will take between 2-6 hours, depending on the tests you need. It may be helpful to bring a list of questions with you to the appointment.

At this appointment you will meet with a Physician Assistant (PA) or Nurse Practitioner (NP) who:

- Reviews your medical history including allergies, current medications, and previous surgeries
- Performs a physical examination
- Reviews the results of your preoperative tests
- Answers your questions about the surgery
- Reviews the consent for surgery
- Reviews what your family can expect
- Explains what you can expect during your hospital stay

At this appointment you will meet with a Medical Assistant who:

- Provides you all of your pre-operative instructions
- Reviews all of your medications (Please bring a list of everything you take: prescription, over-the-counter, vitamins or herbal supplements)
- Shows you how to use an incentive spirometer (breathing machine) and gives you one so you can practice at home
- Reviews the tentative date/time of your surgery
- Explains where to go and when to arrive
- Explains where your family checks-in and waits while you are in surgery

Medications:

Please bring a list of everything you take: prescription, over-the-counter, vitamins or herbal supplements.

Staphylococcus Aureus Infection Prevention before Cardiac Surgery

What is Staphylococcus aureus?

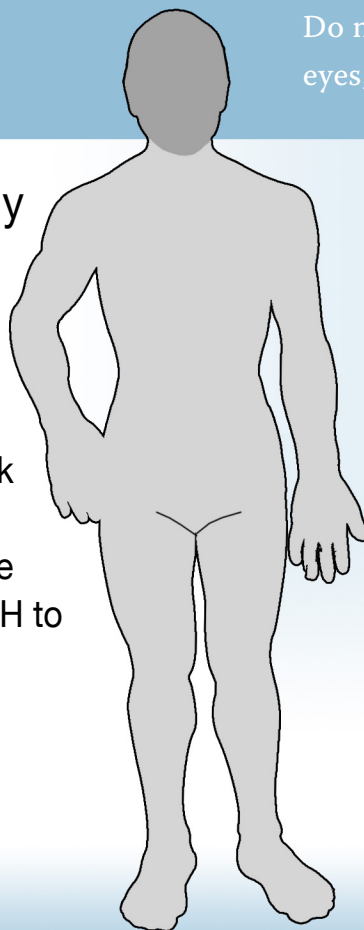
Staphylococcus aureus or, “Staph”, is a germ that lives on the skin and in the noses of many healthy people. Staph germs do not cause any problems for most people, but sometimes these germs can cause serious infections including surgical wound infections.

To reduce the risk of Staph infections, you will need to bathe or shower with a special anti-bacterial soap called Chlorhexidine (CHG). The solution will help remove germs from your skin. Wash with this soap for 5 days before your surgery. Use the soap from your neck down only. Do not use it on your face.

Do not use in your face,
eyes, ears, mouth, or nose.

Use the Chlorhexidine soap only
from the neck down.

- Apply CHG onto a damp washcloth.
- Rub into a lather.
- Gently scrub your body from the neck down (front and back).
 - **If showering:** Move away from the shower stream when applying CGH to avoid rinsing it off too soon.
- Rinse thoroughly.



Preparing for Your Surgery

A Checklist to Guide You

In the time leading up to your surgery, be sure to follow these simple tips to ensure the best possible outcome and prepare for a successful recovery. Use the checklist below to help you get ready.

❑ **If you smoke, STOP!**

The SINGLE most important thing you can do for your heart is to stop smoking. Smoking increases your chances of having complications such as pneumonia after surgery. Non-smokers also heal faster than people who smoke.

Stop smoking now so there is no need to cancel your surgery!

For more information, read the “*How to Quit Using Tobacco*” section in this booklet.

If you want assistance to quit smoking prior to surgery, ask for a referral to the UM Tobacco Consultation Service or call them yourself.

Call: 734-998-6222

❑ **Review Your medications**

The following medications may increase the risk of bleeding with surgery:

- No aspirin or aspirin- containing products (Bayer®, Excedrin®, Bufferin®, Anacin® or Alka-Seltzer®)
- No nonsteroidal anti-inflammatory (NSAIDs) products such as ibuprofen (Advil®, Motrin® or other) or naproxen (Aleve®, Naprosyn® or other)
- No vitamins or supplements

Your surgeon will give you specific directions for when to stop taking these medications.

❑ **When is blood thinner medication stopped before surgery?**

You tend to bleed more easily when you take blood-thinning medication. Your surgeon will give you specific directions for when to stop taking your blood thinners before surgery.

The following is a list of blood-thinning medications:

- Warfarin (Coumadin®)
- Enoxaparin (Lovenox®)
- Dabigatran (Pradaxa®)
- Apixaban (Eliquis®)
- Fondaparinux (Arixtra®)
- Rivaroxaban (Xarelto)
- Clopidogrel (Plavix®)
- Dipyridamole (Persantine®)
- Prasugrel (Effient®)
- Ticagrelor (Brilinta®)

❑ **Review when to stop drinking alcohol before surgery**

Please **do not drink** any alcoholic beverages for **48 hours** before your operation. If you are having an aortic aneurysm repair, we ask that you refrain from alcohol consumption for 30 days prior to surgery.

Be sure your surgeon and anesthesiologist know your usual amount of alcohol intake.

❑ **Do I need any vaccinations before surgery?**

Ask your surgeon or primary care provider about which vaccines you may need prior to your surgery.

❑ **Set up a pre-surgery dental evaluation**

- Please see a dentist prior to your operation. Your dentist will make sure your teeth and gums are in good condition before surgery. This is important to prevent any infection after surgery. If you are **undergoing** surgery for a heart valve, you will need to take an antibiotic one hour prior to your dental appointment.
- Please ask your dentist to sign and fax the provided dental clearance letter.



For any questions about medicines, call your surgeon's office (via the Call Center).

**Call Center:
888-287-1082**

- After your heart valve or aortic surgery, you will need to take an antibiotic before any dental or invasive procedures. Please ask your nurse if you have any questions.

□ **Develop a plan for recovery**

To maximize support for your recovery, pick a friend or family member to be your personal support coach. Your support coach will be educated by your providers on how to support and encourage you during your recovery.

Your support coach will:

- Accompany you to your history and physical appointment.
- Accompany you to the hospital on the day of your surgery.
- Be the primary person to talk with your doctors and nurses. Your coach can then relay information back to your family and friends.
- Receive education from your health care team on how to provide the best care and support for you at home.
- Be present as you receive your discharge instructions at 9:30am on the day of discharge and drive you home.
- Stay with you for the first 7 days after you are discharged from the hospital; this includes at night, too.
- Be available to help you with certain tasks in your recovery after you leave the hospital:
 - Help you monitor your temperature, blood pressure, heart rate, weight, and check your incisions
 - Assist you with your medications
 - Assist you with daily activities and exercise
- Accompany you to follow-up appointments and blood draws.

You will receive a call 72 hours after discharge from one of the Medical Assistant Specialists. If you or your support coach have questions or concerns, they will be able to assist you.

If you cannot identify a support coach prior to your History and Physical appointment, please notify your Clinical Care Coordinator:

My Clinical Care Coordinator _____

Contact Number _____

They will either help you identify a coach or outline a safe alternative care plan.

My Support Coach is: _____

What is the difference between recovering at home and recovering at a skilled nursing facility?

Your surgeon expects you to go home after surgery with the support of your coach. People who go directly home after surgery often achieve a faster recovery. There are times when it is appropriate for a patient to go to a skilled nursing facility. This decision will be made by your team including your surgeon, physical/occupational therapists, and care manager.

Note: If you return home, your medical care will be directed by your cardiac surgeon. If you discharge to a skilled nursing facility, your medical care will be directed by the providers at the facility.

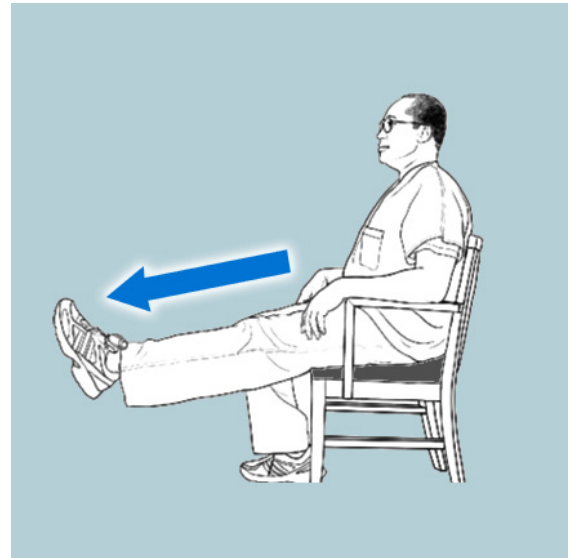
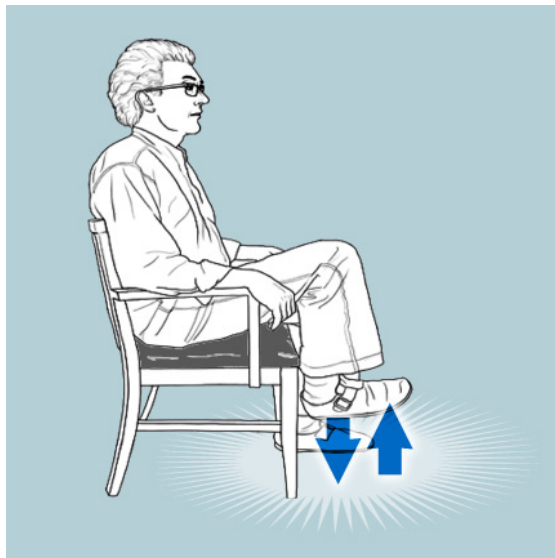
The benefits of returning home after your hospital stay include:

- You are at lower risk of complications, such as infection, wound healing problems and readmission to the hospital
- You will spend your recovery in the familiarity and comfort of the home environment.
- You will return to your daily routine faster, including bathing and meal preparation.
- You and your support coach will make your daily walking and exercise program part of your daily routine.
- Your friends and family will be able to visit and support you at any time of day.

❑ **Purchase the necessary equipment:**

- Oral thermometer
- Weight Scale
- Home Blood Pressure Cuff

We prefer the OMRON 700 or 900 series devices (“COMFIT” cuff) as they have been validated by independent societies to be accurate. These can be purchased at many stores or on the Omron website. For any home blood pressure device you purchase, make sure that it has been validated to be accurate (the manufacturer will attest that the device passed validation by the AAMI, BHS, or the AHA).



❑ **Practice your pre-operation exercises**

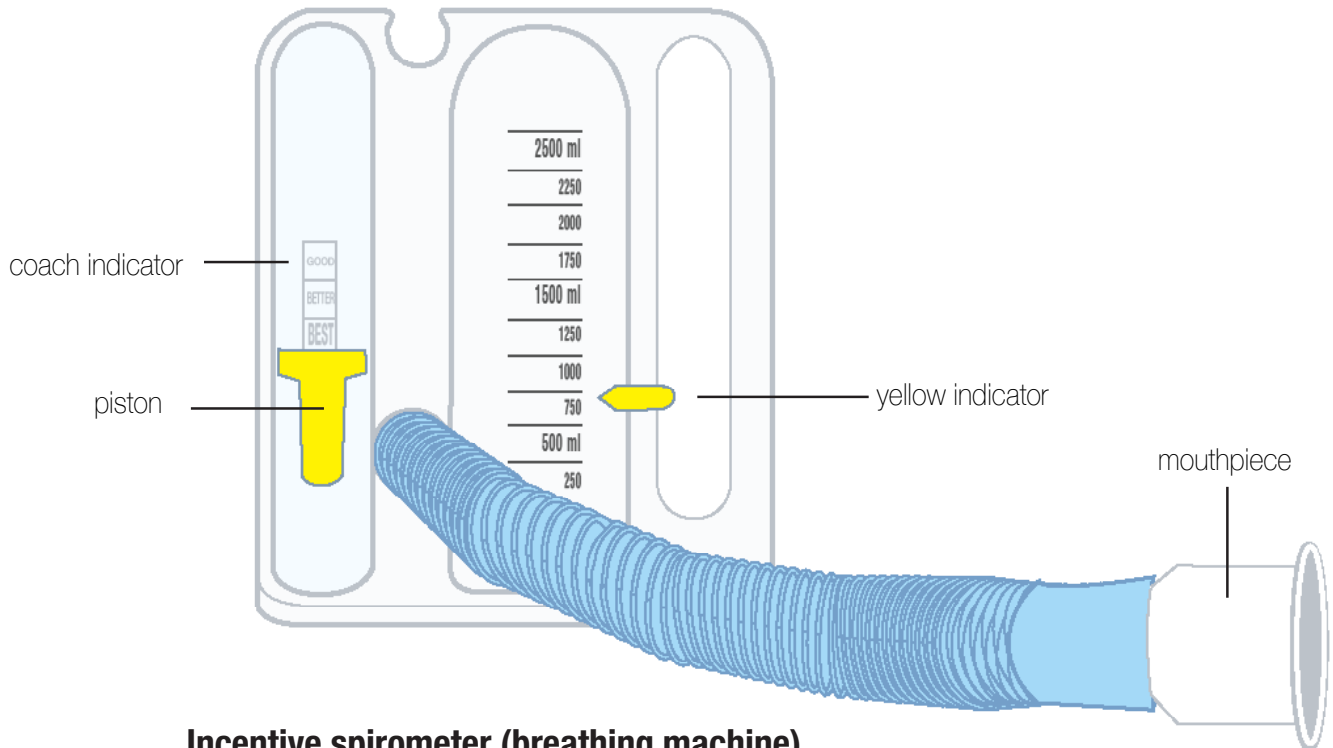
Practicing your exercises before and after your operation is important and will allow you to take an active role in your recovery. Performing these exercises will play an important role in getting yourself well and home. See the section on **Physical Therapy** in this chapter.

Practice the following exercises several times each day:

Exercises for your lungs

The following breathing exercises are designed to assist in keeping your lungs fully expanded and clear of extra secretions so that you do not develop pneumonia. Remember, no one can breathe or cough for you. Be sure that you are comfortable, relaxed and able to concentrate before you begin a practice session. Place your hand on your stomach or ribs, so that you emphasize expansion of the correct area.

Incentive spirometer



Incentive spirometer (breathing machine)

Before your operation, you will receive an incentive spirometer. Staff will teach you how to use it properly. You should practice using your breathing machine (incentive spirometer) several times each day. Your breaths should be slow and deep.

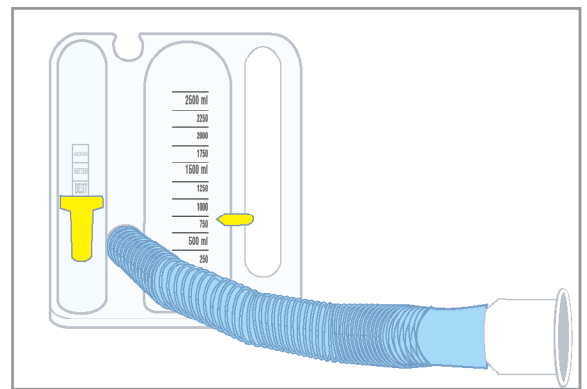
- You should have your incentive spirometer at your bedside immediately after your operation so that you can use it as soon as you wake up. You should use your incentive spirometer 10 breaths every (1) hour while you are awake.
- Do not compare your results to those of other people.
- Many factors can change the volume a person can achieve when using this machine.
- Use your incentive spirometer when you go home to help keep your lungs clear while you recover. Continue to use it until you return to clinic.

How to use the incentive spirometer

1. Sit on the edge of your bed if possible, or sit up as far as you can in bed.



2. Hold the incentive spirometer in an upright position.

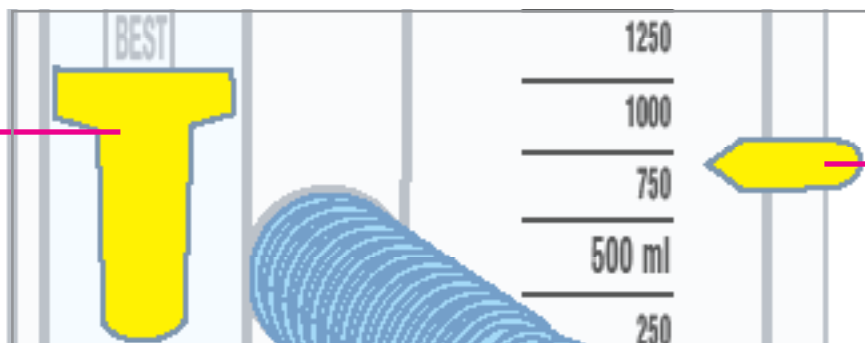


3. Place the mouthpiece in your mouth and seal your lips tightly around it.



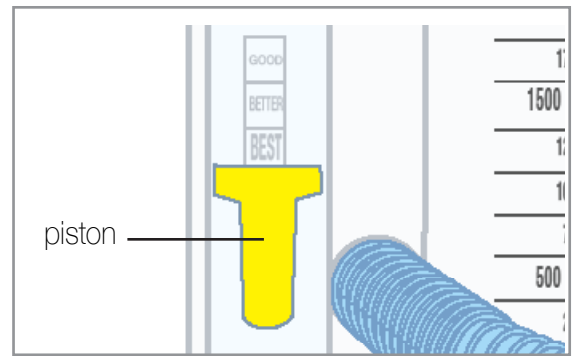
4. Breathe in slowly and as deeply as possible.

Notice the yellow piston rising toward the top of the column.

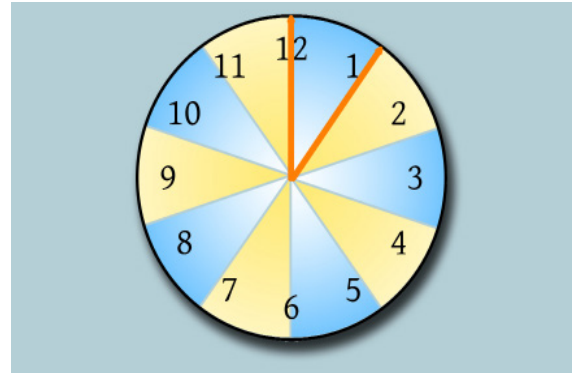


The yellow indicator should reach the blue outlined area.

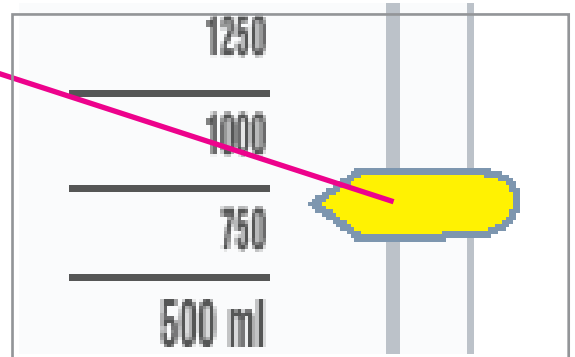
5. Hold your breath as long as possible. Then exhale slowly and allow the piston to fall to the bottom of the column.



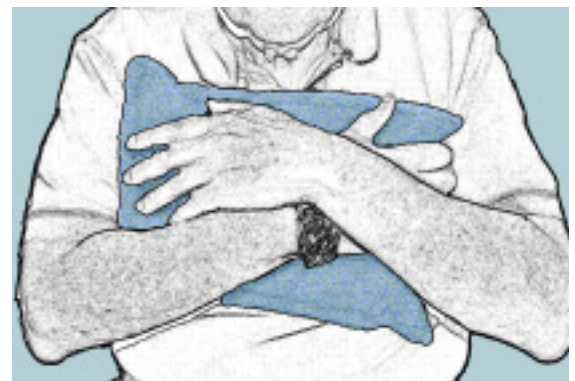
6. Rest for a few seconds and repeat steps one to five at least 10 times every hour.



7. Position the **yellow indicator** on the side of the spirometer to show your best effort. Use the indicator as a goal to work toward during each slow deep breath.



8. After each set of 10 deep breaths, cough to be sure your lungs are clear. If you have an incision, support your incision when coughing by placing a pillow firmly against it.



9. Once you are able to get out of bed safely, take frequent walks and practice the cough.



Deep breathing and coughing

One of the most important factors that will speed your recovery is your ability to breathe deeply and cough effectively. Practice each step below several times each day.

- Take two deep breaths in through your nose and out through your mouth.
- On the third breath, breathe in deeply and then give two or three sharp coughs before taking another breath.
- You should feel your abdominal muscles tighten each time you cough. Be sure to spit out any mucus your cough produces.
- After your surgery, you will want to support your incision with your hands, a pillow, or a folded blanket when coughing.

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Physical therapy exercises before open heart surgery

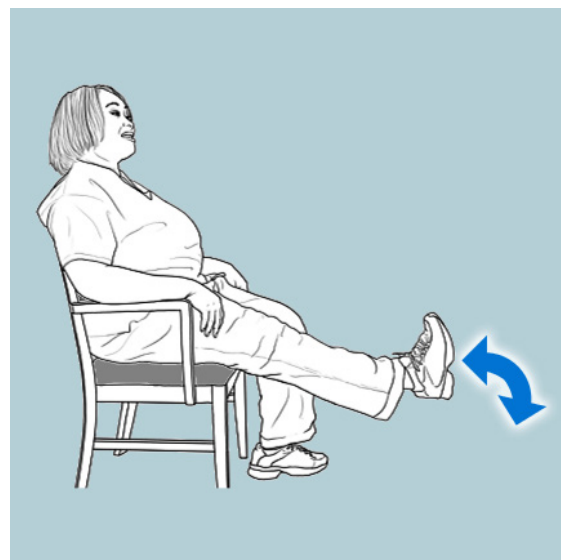
Exercises for your legs

In addition to your breathing exercises, there are a few simple exercises you can do in bed or sitting in a chair to keep muscle tone, promote good circulation in your legs, and decrease swelling in your legs. Practice each exercise at least twice a day. Repeat each exercise 10 times and increase to 25 as able. After your operation, the following exercises should be performed every hour while you are awake until you are walking frequently.



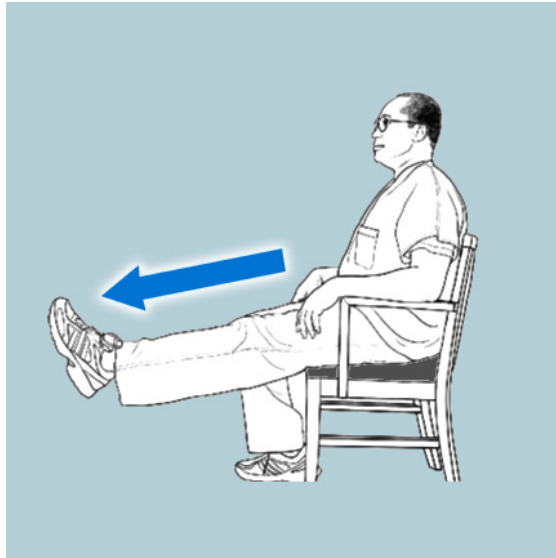
Upright posture:

Look straight ahead with your chin tucked and shoulders pulled back. Use this posture with all exercises below.



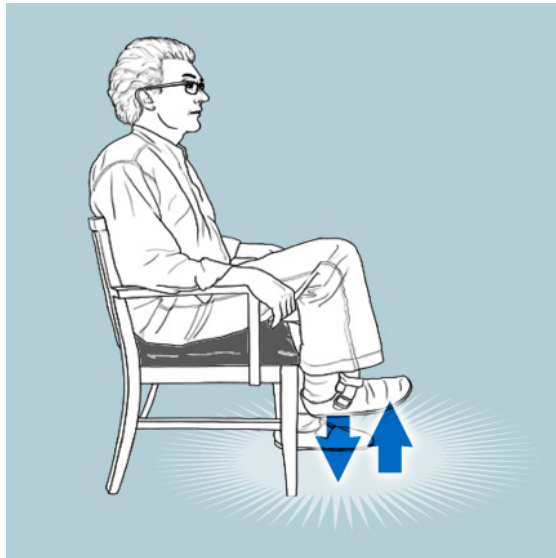
Ankle pumps:

Move your ankle up and down (like pressing and releasing a gas pedal). You may perform this exercise sitting or lying down.



Leg kicks:

Sitting with an upright posture in a chair or in the bed, kick your leg out straight and slowly. Hold for 3 seconds, and then repeat with the other leg.



Seated marching:

Sitting with upright posture in a chair or in the bed, lift your knee up towards the ceiling without leaning backwards. Repeat with the other leg.

Tips to Ensure a Safe Hospital Stay



Michigan Medicine faculty and staff are working with patients and families to become the safest hospital in the world. Please review the following safety tips.

Speak up!

If you have voiced a concern to staff that your or your family member's condition is rapidly getting worse, but feel it has not been adequately addressed, pick up any hospital phone and call **FIRST** by dialing 141-The Family Initiated Rapid Safety Team.

Dial **141** for **FIRST** = The Family Initiated Rapid Safety Team

Be informed

Speak up if you have any questions or concerns. You have the right to question anyone who is involved with your care.

Know who is in charge of your care.

Many people may be involved in your care. Also, doctors can change during your stay. You can encourage your care providers to write their names and roles on the whiteboard in your inpatient room to help you understand who is on your care team.

Ask about test results.

Do not assume “no news is good news”; ask your doctor about your test results.

Be informed of any invasive procedures, such as surgery.

Make sure you and your doctors all agree on exactly what will be done.

When you are unable to speak up (sedated or breathing tube prevents you from speaking), a trusted family member or friend can be your advocate. Identify that person before you are admitted to the hospital. Read more in the Advance Directive.

- Fall prevention** Prevent falls by wearing slip-resistant socks and asking for help before getting out of bed. Avoid using unsteady items (such as IV poles and bedside tables) when getting out of bed. Be aware of how you are feeling. Some medications can cause dizziness or drowsiness. Families are encouraged to stay if a patient is at risk of a fall.
- Hand hygiene** Patients in the hospital can get infections, called healthcare-associated infections, from the spread of bacteria on the hands of caregivers and other staff. Studies show that proper hand hygiene (soap and water or **hand sanitizer**) reduces the occurrence of these infections. In other words, health care providers can prevent the spread of bacteria by simply washing their hands. At Michigan Medicine, staff are required to wash their hands (with soap and water or **hand sanitizer**) upon entering and leaving a patient room as well as before and after each patient contact. If you ever notice anyone forgetting to clean their hands, please remind them to do so.
- Identification (ID) bracelet** When you arrive, an ID band with your name and medical record number (MRN) is put on your wrist. Staff will check your identity by looking at this ID bracelet. Please do not remove the bracelet until after you are discharged to home.
- Medication safety** While in the hospital, you can expect staff to give you the right medications. Your doctor may order new medications when you are in the hospital.
- Be sure you know:**
- what medication you are taking and why you are taking it
 - what the medication looks like
 - the dose (amount)
 - how often you take it and what time of day
 - side effects that may occur

We want you to feel comfortable voicing concerns if you feel that any medication being given to you is not correct.

For questions or concerns about medication, alert your doctor or nurse.

The Day Before Your Surgery



Confirming your arrival and surgery time

You will need to confirm the time of your surgery so that you know what time to arrive at the hospital. It is important for you to follow these steps:

- The day before your surgery, please call **866-983-9090** between 8:00am and 11:00am.
- If your surgery is on a Monday, please call the Friday before.
- Leave your name and phone number with the clerk or on the answering machine.
- A pre-op nurse will call you back between 1:00-4:00pm to confirm the time of your surgery and the time you should arrive on the day of your surgery.
- Be sure to give your surgeon a phone number where we can reach you the night before and the morning of surgery. It is important to know how to reach you.



The day before your surgery, please call
866-983-9090

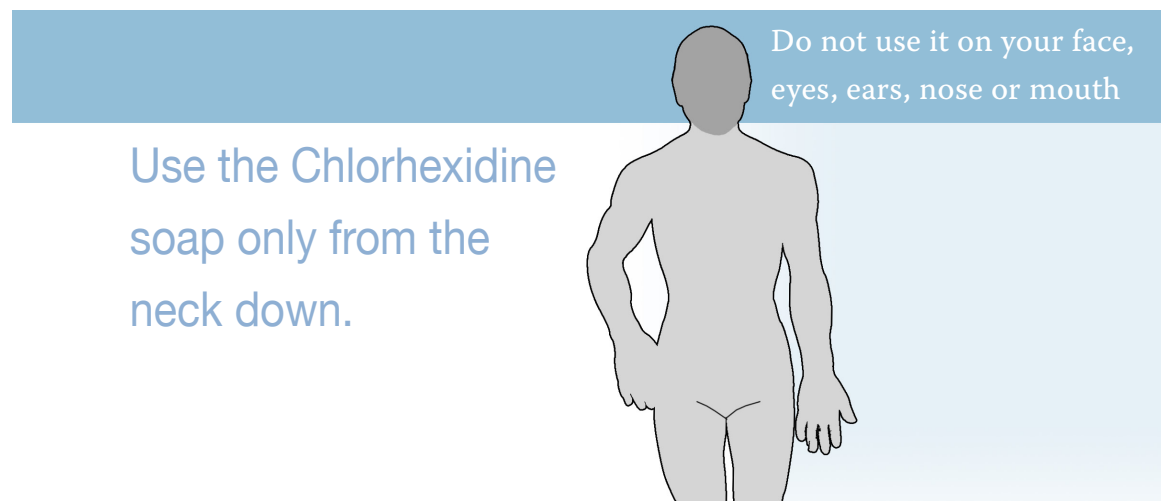
Who do I contact if I am not feeling well the day before my surgery?

Report any symptoms of flu, cold or infections to your surgeon. It is important that you be in your best possible health for surgery.

- Call (888) 287-1082, Monday-Friday before 4:30pm to report these symptoms. Ask to speak to the clinic nurse. Call (866) 983-9090 after 4:30pm and leave a message.

How should I prepare for my surgery?

- You will be asked to shower using the chlorhexidine (CHG) 4% antiseptic soap the night before and the morning of your surgery. This special soap reduces the amount of germs on your skin.
- Use the Chlorhexidine body wash from the neck down.



- Do not shave** the hair on your chest, arms or legs! Shaving your skin with a razor blade can actually increase your risk of infection. We will prepare your skin by removing the hair with a special clipper the morning of surgery.
- Do not** apply make-up, deodorant, lotions, sprays, gels, creams, ointments or powders after showering with the special body wash the night before and the morning of your surgery.
- Remove** nail polish from your hands and feet.
- Do** brush your teeth the morning of surgery.
- The day before surgery you should practice the coughing, deep breathing, and physical therapy exercises you have learned. You should also practice with your breathing machine (incentive spirometer) several times that day.
- Review this booklet

What activities should I avoid the night before my surgery?

- Do not eat** gum, hard candy or food of any kind after midnight the night before your surgery.
- Do not drink anything after midnight the night before your surgery. This includes water, coffee, milk, or juice. You may have a sip of water with your morning medications up to 2 hours before arrival time.



How can I prepare for my hospital stay?

- Plan on bringing any special equipment that you use at home:
 - Glasses, dentures and hearing aids with storage cases. Be sure to label these items with your name.
 - CPAP machine if you have sleep apnea.
 - Walker or a cane, labeled with your name.
- Pack a suitcase with these items for your family/friends to bring to you after your surgery. You will not need your suitcase until you are transferred to the stepdown unit.
 - **Women only:** Make sure you have a loose-fitting and preferably front closure bra with no underwire to wear after surgery.
 - Loose fitting clothes. Button down shirts are preferred.
 - Robe
 - Tennis shoes
 - Toiletry articles: toothbrush, comb, etc.
 - A list of the medications you are currently taking including vitamins and herbal supplements. Do not bring actual medications with you to the hospital.