



Your guide to

LUMBAR SPINE Fusion

ADVANCED
Center for Orthopedics

UP HEALTH SYSTEM
MARQUETTE
A Duke LifePoint Hospital

Thank you.....

*For choosing the UP Health System-Marquette Brain and Spine Center for your upcoming spine surgery. We are the Regions only Blue Cross Blue Shield **Blue Distinction Center for Spine Surgery**. This designation recognizes hospitals that demonstrate expertise in delivering high quality spine care. Criteria used to evaluate our program include:*

- *Experience and training of our surgeons*
- *Quality Management and clinical outcome pathways*
- *Coordinated multidisciplinary care pathways*
- *Patient-centered shared decision making and pre-operative education*
- *Offer a full range of acute inpatient and outpatient support services*

The UP Health System-Marquette spine surgery program is a collaborative between UP Health System-Marquette and Advanced Center for Orthopedics. From diagnosis to rehabilitation, the UP Health System-Marquette spine program offers a truly comprehensive approach to patient care, with an interdisciplinary team of experienced healthcare professionals-including neurosurgical and orthopedic spine surgeons, anesthesiologists, specially-trained nurses, physical and occupational therapists and case managers-working together to develop and implement a treatment plan for you.

We have designed this patient education booklet to serve as a guide while you are in our care. We trust that you find it informative and helpful to your recovery.

As part of your pre-surgery preparation, verbal instructions and a video with an overview of your surgery will be offered.

We understand you have a choice where you have your surgery and we appreciate your trust in letting us serve you.

YOUR SPINE CARE TEAM



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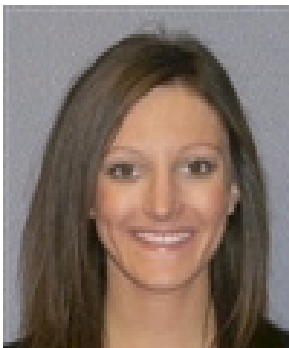
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PHYSICAL THERAPIST



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PHYSICAL THERAPIST

SPINE CARE TEAM

Anesthesiologist/Certified Registered Nurse Anesthetist

A physician or advance practice nurse responsible for your anesthesia (putting you to sleep or numbing your legs) for your surgery. The anesthesiologist or nurse anesthetist may also be involved in pain management issues before and after surgery.

Case Manager/Discharge Planner

A registered nurse or social worker who works closely with your surgeon and the other team members to help you make decisions about your discharge plan. This may include outpatient therapy, home equipment, and/or any skilled nursing care if needed. The case manager/discharge planner can also answer your questions about insurance coverage for services and equipment.

Nurse Practitioner (NP)

A registered nurse with advanced skills and education that works with your surgeon to manage your care. An NP can diagnose and treat health care problems. An NP can prescribe medications, order, and interpret needed tests. Nurse Practitioners often see you before, during, or after surgery.

Physician Assistant

A health care professional that works with your physician to prescribe, diagnose, and treat health care problems. Physician assistants often see you before, during, or after your surgery.

Neurosurgeon/Orthopedic Spine Surgeon

A physician/surgeon that performs your back surgery and directs your care. This doctor guides your rehabilitation and follows you through office visits.

Physical Therapist (PT)

The physical therapist plans your physical rehabilitation after your back surgery. This therapist will help you regain range of motion, muscle strength, and balance to walk safely after your surgery. You will learn how to use assistive devices such as a walker or cane, which will be needed temporarily after your surgery. Sometimes patients will attend physical therapy before surgery to learn exercises to build strength.

Registered Nurses (RNs)

Professional nurses that are responsible for managing your bedside nursing care following your surgery. Nurses use the surgeons instructions to guide your care. RNs provide education to you and your family about your health and safety needs. This includes information before and after surgery and helps you plan for your discharge from the hospital. RNs also provide care and education in your surgeon's office.

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Key Phone Numbers

UP Health System Neurosurgery.....	(906) 225-4575
Advanced Center for Orthopedics.....	(906) 225-1321
Toll Free	1-800-462-6367
UP Health System-Marquette Orthopedic Floor (8th Floor).....	(906) 225-3175
UP Health System-Marquette Emergency Department	(906) 225-3561
Emergencies	911
Procedure Preparation Center	(906) 225-3290
Toll Free	1-800-562-9753, ext. 3290
Anesthesia Office.....	(906) 225-3595
Toll Free	1-800-562-9753, ext. 3595
Operating Room Visitor Lounge.....	(906) 225-3281
Toll Free	1-800-562-9753, ext. 3281
Patient Advocate.....	(906) 225-3433
Toll Free	1-800-562-9753, ext. 3433

Preoperative Spine Surgery Instructions

Take only the medication that you were told to take the morning of surgery with a sip of water.

DO NOT EAT OR DRINK ANYTHING EXCEPT WATER UP TO 2 (TWO) HOURS BEFORE ADMISSION, unless your doctor specifically orders medications or clear liquids.

Do not wear contact lenses, makeup, nail polish, hairpins, barrettes or jewelry the day of surgery.

The time of surgery will not be determined until 2 days before the surgery.

Please call UP Health System-Marquette for your time of admission after 2 p.m 2 days before your procedure. If your surgery is on Monday, call on Friday (906) 225-3290 or toll free @ 1-800-562-9753, ext. 3290.

Thank you for choosing us for your orthopedic needs.

Posterior Lumbar Interbody Fusion

Indications for surgery

Often the main reason for choosing surgery in the lumbar spine is your level of discomfort and inability to participate in activities of daily living. On rare occasions, there is concern about nerve damage where surgery is required to preserve nerve function. In most cases, problems in the lower back pose minimal risk of nerve damage and are more an issue of function and comfort. There are many non-surgical treatments for back and leg pain including medical management, modifying activities, physical therapy, pain procedures, and pain psychology techniques. When these approaches have failed to treat your symptoms, surgical treatment can be considered. Because the number one issue is your level of discomfort and activity limitations, the decision to have surgery centers on you.

Lumbar Fusion

Lumbar fusion is the general term that is used to describe the surgery that attempts to create a bony connection between two vertebrae joining them into a single bony unit. This can be performed in a number of ways. The specific approach for your fusion is based on the nature of the problem that needs to be corrected and its location. Fusion is considered when there is a structural issue that is causing deformity or instability in the spine.

Posterior Lumbar Interbody Fusion (PLIF)

Posterior Lumbar Interbody Fusion is a type of spine surgery that approaches the spine through the back of the body. Interbody fusion means that the disk between the selected vertebrae is removed and replaced with a bone or metal spacer. Instrumentation such as plates, screws, rods, cages or hooks may also be used to support the lumbar spine.

Anterior Lumbar Interbody Fusion (ALIF)

Anterior Lumbar Interbody Fusion is a type of spine surgery that approaches the spine through the front of the body, through the abdominal area. Interbody fusion means that the disk is removed between the selected vertebrae and replaced with a bone or metal spacer. Instrumentation such as plates, screws, rods, cages or hooks may also be used to support the lumbar spine. The ALIF surgery may be done alone or in conjunction with a posterior spinal fusion approach. Your incision will be in your abdomen.

Transforaminal Lumbar Interbody Fusion (TLIF)

Transforaminal Lumbar Interbody Fusion is a surgical procedure similar to the PLIF. The TLIF approach provides access to the spine from the side through an incision in the back. Bone and disk material are removed from the selected vertebrae and replaced with a bone or metal spacer. Instrumentation such as plates, screw, rods or cages may also be used to support the lumbar spine.

Risks and Complications

Your surgeon will review the risks specific to your procedure:

Risks and possible complications of spinal fusion can include:

- Infection
- Weakness
- Nerve damage
- Spinal fluid leakage
- Bleeding or blood clots
- Need for second surgery
- Complications related to anesthesia
- No improvement in pain or worsened pain
- Bones not fusing or bone graft shifting out of place
- Paralysis (loss of muscle function for one or more muscles)

Preparing for surgery

YOU MUST CALL the Procedure Preparation Center at 906-225-3290 or toll free at 1-800-562-9753 extension 3290, ***after 2:00 pm*** 2 days before your surgical date. ***Call Friday afternoon if your surgery is scheduled for Monday.***

- The time of your surgery will not be determined until 2 days before surgery.
- Bathe or shower using unscented bar soap and shampoo on the morning of or evening before surgery.
- Please review the Surgical Services booklet which can be found in your Spine Surgery Teaching Packet.

Pre-operative surgery instructions

- Take only the medication that you were told to take the morning of surgery with a sip of water.
NOTHING ELSE BY MOUTH!!!
- You may brush your teeth the morning of surgery, but do not swallow the water.
- Do not wear contact lenses, makeup, nail polish, hairpins, barrettes or jewelry the day of surgery. Glasses, dentures and hearing aids will be taken just prior to surgery and returned following surgery.
- Bring loose fitting clothing, toiletries, slippers or walking shoes. If you use a walker or crutches, bring them to the hospital with you upon admission.
- Make all your transportation arrangements for your surgery before the day of surgery.
- You must have a driver upon discharge.

Pre-operative holding area

You will be helped onto a stretcher and taken to the pre-operative holding area. The pre-operative holding area is a room where final preparations are made before surgery. An intravenous (IV) will be started and medications will be administered. You will meet the anesthesiologist (MD) and nurse anesthetist (CRNA) who will administer your anesthesia. Pre-operative procedures and preparations can be time consuming. The nurse and anesthetist will take you into the operating room when all preparations have been made. The operation can vary in length. The actual time you are away from your family is much greater than the actual operation time.

Family waiting room

Your family or significant others should wait in the surgical lounge on the 1st floor of the South Wing. They will be called periodically with updates from the operating room and recovery room. The surgeon will update your family after the surgery is completed.

Recovery Room

After your surgery is completed you will be observed in the recovery room until the anesthesia department clears you to return to your room. This usually takes 2-2 ½ hours. Your family **Can not** visit you in the recovery room. They will be notified when you are transferred to your room.

After Surgery

Upon arrival to your hospital room, your nurse will frequently check your vital signs (blood pressure, pulse, breathing rate, temperature) as well as your neurologic status. You will have an intravenous line to administer fluids and medications.

You will have on elastic stockings and air filled compression stockings over them. These stockings are connected to a pump and provide constant gentle massage to your legs to stimulate blood flow in your legs and protect against the risk of blood clots. These stockings will be removed when you are up walking in the halls.

You may begin to take fluids (sips of water and ice chips) as soon as you feel up to it. Your diet will be adjusted back to normal as tolerated. You will begin limited moving the day of surgery and activity will be gradually increased. A physical therapist will work with you while in the hospital on an exercise program to mobilize you out of bed and help maintain and improve function of your lower back and extremities. If a brace has been ordered, you need to wear it when you are out of bed. You do not need to use it for sleep. The brace can be put on in a sitting position. Our immediate goal is to get you up and walking and able to perform usual activities of daily living and self-care.

What type of pain will I feel after surgery?

You may be surprised at the intensity of pain you will experience after surgery. Please be aware that spine fusion is a painful procedure. Often the incision itself is not the only area of discomfort. You may or may not feel the following:

- Muscle pain – You may feel muscle pain in the back, neck, shoulders, or chest from lying on the operating table.
- Throat pain – Your throat may feel sore or scratchy from the breathing tube placed in your throat during surgery.
- Movement pain – Sitting up, walking, and coughing are all important activities after surgery, but they may cause increased pain at or around the incision site.

Pain management after surgery

Pain management following surgery is a major priority for both you and the health care team. **You should expect to have pain in your back and your incision following surgery that will not be completely eliminated by pain medications.** It is not unusual for patients to have approximately 3 weeks of significant pain before they notice some improvement. In many cases the leg pain caused by the pinched nerve **may be** immediately improved. You can help the doctors and nurses “measure” your pain. While you are recovering, your doctors and nurses will frequently ask you to rate your pain on a scale of 0 to 10, with “0” being no pain and “10” being “the worst pain you can imagine.” Reporting your pain as a number helps the doctors and nurses know how well your treatments are working and whether to make any changes. Taking an active role in pain management techniques and coping mechanisms improves the healing process.

Pain management and patient safety

The goal of pain management is to safely reduce your pain to a manageable level, without causing complications from pain medications that include drowsiness, respiratory complications and confusion. It is not always possible to eliminate all forms of pain; including post-operative pain completely. An acceptable post-operative pain level is considered to be 4 on the pain scale. Your nurse will assist in managing your pain by providing additional therapies to improve your comfort. There are many non-medicine pain relief techniques that can help to manage your pain (changing position, relaxation techniques, breathing techniques, massage, warm or cold packs, using pillows for support, listening to music, positive thinking, coping strategies, etc.) Working together with your health care providers can make a difference in the management of your pain.

Care of the Incision

It is important to keep your incision clean and dry. Do not apply lotions or ointments to your incision. Showering is permitted but please refrain from bathing, saunas or hot tubs. You may be given a special dressing to cover the incision during showering with instruction. You will be given detailed discharge teaching and instructions regarding care of the incision before you go home from the hospital.

Swelling, bruising and tenderness at the incision site are common and will subside within two-four weeks after surgery. You will have dissolvable stitches beneath the skin. Skin tapes called steri-strips may be used to cover the incision. Stitches or staples may be used and will need to be removed in the office in 10-14 days. This appointment is usually made when you are discharged from the hospital.

Discharge

After you are discharged home, your doctor will outline an individual care plan for you. A typical plan is two weeks of rest and relaxation that includes getting up and walking about. You will not be allowed to perform heavy activity such as house work, yard work, or returning to your job until instructed by your physician. You may be given prescriptions for pain medication to take at home. These may or may not be the same pain medications you took in the hospital. Make sure your doctor knows about pain medications that have caused you problems in the past. This will prevent possible delays in your discharge from the hospital.

Walking is encouraged for all fusion patients and can be done as tolerated, with gradual increase in duration. Avoid using a treadmill until 6 weeks after surgery. Avoid lifting greater than 10 pounds in the first 2 weeks after surgery. Lifting restrictions will be gradually increased as you recover. Activity will be gradually increased and will be discussed at your follow up physician visits. Some patients will start in physical therapy at 6 weeks with more vigorous conditioning exercises after 3 months.

A nurse may call after you are discharged to see how you are doing. Call the nurse if you have any of the following symptoms: temperature above 101 degrees, increased pain at the incision site, swelling or redness at the incision site, drainage from the incision, opening of the incision or failure to heal, increasing back or leg pain that does not improve with rest.

A certain amount of pain and discomfort can be expected during the healing process. You may also continue to experience some numbness and weakness in your legs. In most cases, this should improve within a few weeks. However any new or prolonged symptoms of numbness or weakness should be reported. If you are uncertain, feel free to call and ask the nurse.

Nurse: _____ Telephone # _____

This brochure is not intended as a substitute for professional medical care. If you have any questions about your surgery that have not been answered, please contact your surgeon.

Smoking and your bones

Smoking causes your heart rate and blood pressure to rise. It causes your blood to clot faster and reduces the amount of oxygen in your blood. This puts you at risk for heart attack, stroke and circulatory problems.

Smoking also impairs the absorption of many vitamin and minerals, decreasing your body's ability to heal after surgery. It interferes with a successful solid fusion in spinal fusion surgeries and delays healing. Smoking can also decrease your bone density. This makes you more prone to fractures and osteoporosis: which is the loss of bone tissue causing bones to become brittle and prone to fractures.

It is important for you to quit smoking 4-6 weeks prior to surgery, and during your recovery. Smoking is not allowed anywhere in the hospital or on hospital grounds. If you've tried to quit before, you know how hard this may be. Your health care provider understands this. Health care providers can help you by offering support and giving you information on smoking cessation. Research shows that patients who quit smoking heal more quickly and experienced fewer complications than those who continue prior to and after surgery.

Frequently Asked Questions about Spine/ Back Surgery

A well-informed patient is one who will be able to take part in their care and rehabilitation. Knowing what to expect before, during and after surgery can help you to recover more quickly. There are common questions patients have about spine surgery. Answers to some questions are listed below. However, it's best to discuss your specific questions with your surgeon.

Am I too old for this surgery?

Age is not an issue if you are in good health and want to continue living an active life. You may be asked to see your primary care doctor about your overall health and readiness for surgery.

How long will my surgery last?

Surgery will take around 3-4 hours. Some of this time is spent preparing you for surgery and some time is also needed in recovery. Be sure to let your family know that they should not be alarmed if they think the surgery is taking longer than expected.

Will I have pain after surgery?

You should expect to have pain in your back and your incision following surgery that will not be completely eliminated by pain medications. It is not unusual for patients to have approximately 3 weeks of significant pain before they notice some improvement. In many cases the leg pain caused by the pinched nerve may be immediately improved. Medication can be given to keep you comfortable, but it will not completely eliminate your pain. It will also help you to participate in therapy.

Can I drive after surgery?

No, you cannot drive while taking pain medication. Generally, driving resumes around six weeks after surgery. You can ride in a car after surgery by following the techniques and precautions outlined by your doctor.

When can I return to work?

Most often, at least 4-6 weeks are needed off from work, and it can take as long as 3 months for a spinal fusion surgery. It depends upon the type of spine surgery and the type of work you do.

When can I play sports again?

You are encouraged to participate in low-impact activities after your full rehabilitation. The best activity to do for recovery is walking. High-impact activities such as running, tennis, and basketball are not recommended.

When do I need to wear the stockings/ TED hose that I was given?

The stockings, called TED hose, that you were given to prevent certain complications from inactivity can come off once you're up and getting around, unless you were directed otherwise.

Before Surgery Checklist

6-8 Weeks Before Surgery

Advanced Health Care Directive (Advance Directive, Living Will)

- If you already have an Advanced Health Care Directive, please bring a copy along to the hospital.
- If you do not have an Advanced Health Care Directive, before your surgery is a good time to complete one. This form will help explain your health care wishes to the health care team and hospital staff.

Diet

- Eat as healthy as possible with the appropriate servings of fruits, vegetables, protein, whole grains, and low fat dairy. An adequate iron supply is important before surgery. Good sources of iron include lean red meats, fortified cereals, and leafy green vegetables such as spinach or kale.
- Discuss starting a multivitamin and iron supplement with your primary care doctor. These supplements may need to be stopped 1-2 weeks before surgery.
- Fluids are important for helping you to have regular bowel movements. Most of the fluid should be water and juicy fruits and vegetables.

Smoking

- Smoking decreases the rate your body will heal. It is important to seek out information on how to stop.

Exercises

- Building strength can help you to have a successful outcome after surgery. Low impact sessions are sponsored by the Arthritis Foundation and many local senior centers and gyms. Water exercise, walking in waist high water, or swimming 2-3 times a week can also increase strength and endurance.
- There are some simple, effective exercises you can do in your own home from now through your rehabilitation after surgery, such as arm exercises and walking.

Medical Appointment

- You may be asked to see your primary care doctor prior to surgery. Ask your surgeon which tests are preferred prior to surgery so you can tell your primary care doctor. Examples include an EKG (electrocardiogram), lab work, a chest x-ray, and urinalysis.

Weight Loss

- Seek the assistance of a dietitian or exercise specialist if weight loss is a goal before surgery. Your primary care doctor can make a referral for you.

Work

- Ask your surgeon to sign a work release form. Request a minimum of 4-6 weeks off work with notice that rehabilitation may take longer.

10-14 Days Before Surgery

Home Changes

Some changes may be helpful for you to return home safely after surgery.

- Purchase night lights and place them in your bathroom, bedroom, and hallways.
- Move loose fitting, comfortable clothes and pajamas to a place that's easy to access. Keep items in drawers that are at waist level only
- Move furniture and objects that do not allow a clear walking path. Remove throw rugs. Electrical cords should be out of the line of traffic. Both rugs and cords can be safety hazards.
- Consider temporary placement of a small pet with a loved one. A pet running around your legs could cause you to fall.
- Move the most often used kitchen items to at least waist level counters or cupboards.
- Make some meals that can be frozen and easily reheated.
- Consider another option for laundry if your washer and dryer are not on the living level.
- Place a rubber mat or non-skid adhesive on the floor of the tub or shower.

Medications

- Medications that are often stopped prior to surgery include:
 - Aspirin and other pain medications that contain aspirin
 - Some anti-inflammatory medicines (such as Motrin, Aleve, etc.)
 - Some vitamins
 - Fish oils
 - Herbal supplements (such as ginseng, ginkgo biloba, garlic pills)
 - Herbal teas
- Some over the counter and prescription pain medications can continue until the time of surgery.
- Please be honest about your drug and alcohol use. It is important to know as it can relate to your safety, anesthesia, and pain management.
- Discuss which medications should be stopped and when with your surgeon. This includes Plavix, Coumadin, and pain medications.

1 Day/Night Before Surgery

Pack

Items to include are (✓):

- Your most current list of medications and supplements, noting which ones have been stopped and when
- Loose pajamas or short nightgown and short robe if desired
- Underwear
- Loose shorts, jogging suit, sweats, tops
- Slippers with backs and rubberized sole or walking sneakers/shoes with Velcro® closures or elastic shoe laces
- Socks
- Personal toiletries (toothbrush, toothpaste, denture cleanser/cup, deodorant, electric or other razor, shaving cream, comb, no powders)
- Eyeglasses
- Hearing aid and batteries
- Make-up, hand mirror if desired
- CPAP machine settings, tubing, and machine
- Long-distance calling card or cell phone
- Driver's license or photo ID, insurance card, Medicare/Medicaid card
- Copy of your Advanced Health Care Directive
- Important telephone numbers (include person bringing you home)
- Books, magazines or hobby (like knitting, cards, etc.)
- Pack this education information so you can review items with your health care team

Do Not

- Do **NOT** eat or drink anything after the time you were instructed. Ice chips, gum, or mints are not allowed.
- Do **NOT** bring valuables - no jewelry, credit cards, checkbooks.
- Do **NOT** bring your own medications

Do Shower

The night before or morning of surgery, wash your hair and rinse it well. Shower using any special soap that is given to you by the hospital or surgeon office.

- Pat dry with a clean towel
- Do NOT use lotions or powder
- Apply newly washed pajama/nightgown or clothes
- Sleep on freshly laundered linens

Hospital Care: What to Expect Day of Surgery

Do not wear makeup and jewelry, and be sure to remove fingernail and toenail polish. Take the medications as instructed with the smallest amount of water possible. Do not eat or drink anything else. You may brush your teeth. Do not take insulin unless instructed otherwise. It's important to arrive at the hospital on time. You will complete any needed forms. You will be taken to an operative area where nurses will prepare you for surgery. You will put on a hospital gown and go to the bathroom. You may have an IV started in your vein. You will discuss your anesthesia with an anesthesiologist or nurse anesthetist. You may be given medication to relax. You will be taken to the operating room for your surgery. After your surgery is completed, you will be taken to the recovery room for up to several hours. Nurses will watch you closely until you are cleared to go by your doctor, and then transport you to the hospital unit. Your surgeon will talk with your family after surgery has ended.

Activity

Active movement after your surgery helps to prevent possible complications. Most patients get out of bed on the day of surgery. A nurse or physical therapist will help you do this. Therapists will teach you movements that you need to avoid, exercises to strengthen your muscles, and how to walk safely. You will increase activity daily to enhance your strength and mobility. It is important to get adequate rest between your therapy and activities.

Breathing

There may be an oxygen tube in your nose. Your nurse likely will remove the tube later that day. You will do deep breathing and coughing exercises for several days after surgery. You may be asked to use a breathing device as well. This is done to expand your lungs and help get oxygen to your tissues.

Circulation

It is important to perform exercises to help your blood circulate. Simple exercises like walking will increase circulation. There may be snug stockings and/or sleeves wrapped around your legs or feet called TED hose. Some of these special stockings fill with air and relax to help blood flow in your legs.

Smoking is not allowed in the hospital. Ask for stopping assistance if needed.

Food/Fluids

You will have fluids going through your IV at first. The IV will be stopped when you are eating and drinking well. Starting with liquids and increasing food slowly can help to avoid nausea that sometimes happens after anesthesia or use of pain medication. You may not be very hungry for awhile. It is important that you eat as best you can in order to heal well.

Wound Care

You will have a dressing on your incision. Your incision may have sutures, staples, or steri-strips. Your nurse will change your dressing and can teach you how to care for it at home.

Discomfort

You will have a significant amount of pain. The goal is to get the pain low enough so that you can rest and take part in activities. You may receive pain medication through your IV.

Tell your nurse early about increased pain, before it becomes too severe. This will help the staff stay ahead of your pain cycle for better pain management. If you are having pain, please tell someone.

Rate your pain on a scale of 0-10, and pay attention to what works to bring that down to a more tolerable level for you. This helps doctors and nurses know what is helping and whether they need to make any changes.

Ask for information about non-medication options for pain relief, such as relaxation, distraction, listening to music, and changing positions.

Remember that it's impossible to eliminate the pain and discomfort you will feel after surgery. Even though pain medications bring some relief, taking dosers higher than what the doctor prescribes can lead to serious consequences.

Going to the Bathroom

You may have a tube to drain the urine from your bladder. This catheter will be removed in a day or two. After that, your nurse will help get you out of bed and go to the bathroom. It may take a day or more to have a bowel movement. Anesthesia and pain medication can cause constipation. Drink plenty of fluids and eat whole grains, fruits, and vegetables. A stool softener or laxative can help normal bowel function to return.

What to Expect: Day after Surgery to Discharge

Activity and Comfort

Continue to cough and deep breathe. You will walk to the bathroom with assistance. Solid food will be offered. Drink fluids to keep hydrated. You will switch to pain pills if pain medication had been given through your IV.

Incision

Your dressing will be changed by the nurse daily, or as recommended by your surgeon.

Discharge Planning

Discuss discharge options and needed equipment with the case manager/discharge planner or nurse. You will be discharged to home if you have met therapy goals.

Caring for Yourself at Home

Activity

After you are discharged home, your doctor will outline an individual care plan for you. A typical plan is two weeks of rest and relaxation, which means getting up and walking around but not doing any heavy activity such as work around the house or returning to your job.

Walking is the best activity to increase your strength and promote healing. Increase your distance 1 minute each day. Start your activity by walking in the house and progress to outdoors.

- **What's normal:** As you become more active, you may experience an increase in discomfort, so do not become alarmed. This does not mean that you are injuring your back, but follow your doctor's instructions about what is right for you.

Sitting

Do not sit or stand for long periods of time. Change your position frequently. Guide your activities by your progress – when you feel tired, stop and rest.

You can do some things around the house, but AVOID activities that include bending, twisting, or lifting anything heavier than 10 lbs. or any activity that causes a lot of pain.

- **What's normal:** some pain with activity, but discomfort should lessen each day.

Rest

Make sure you get plenty of rest after surgery. You may want to try to avoid sleeping during the day because it may make it harder to get a good nights rest. Use pillows to support you while you sleep. You may sleep in any position which makes you comfortable.

- **What's normal:** It is not unusual to have trouble sleeping for the first few weeks following surgery.

Driving

Do **not** drive or operate heavy machinery while taking narcotic medication.

You may be a passenger for short distances (20-30 minutes). If you need to take a longer trip, make sure to make frequent stops so that you can walk around and stretch your legs. Reclining the passenger seat seems to be the most comfortable position for most patients.

Intimacy

Generally, most people wait to resume sexual activity for a few weeks after surgery. Your incision, muscles, and ligaments need time to heal. You can resume sexual activity when you feel ready, or as recommended by your doctor.

Diet

Eat a balanced diet. Drink plenty of water. Protein helps you heal, so be sure to eat lean protein such as chicken and fish.

Care of Your Incision

Proper care of your surgical incision is important. You will have dissolvable stitches beneath the skin. Your incision may be closed with Steri-Strips, Dermabond, skin staples or sutures.

Steri-Strips (skin tape)

Steri-Strips can be removed after surgery according to your doctors' instructions.

Dermabond (skin adhesive):

Dermabond wears off naturally after the wound can stay together on its own, usually 5 to 10 days. You do not need an appointment to remove this.

Skin Staples or sutures:

Staples or sutures will need to be removed in the office in 10 to 14 days after surgery. This appointment is usually made before you are discharged from the hospital.

It is important to keep your incision clean and dry.

Wash your hands before and after changing your dressing. Check your incision for signs and symptoms of infection (a soaked bandage, drainage that is green or yellow, pus)

Do **not** use lotions, powders or ointments on your incision during the healing process (6 weeks)

- **What's normal:** Swelling, bruising, and tenderness at the incision site are common and will usually subside within two to four weeks after surgery.
- **When to call:** If incision is draining or you see any drainage on bandage, the incision is coming open, fever over 101.5 degrees, flu like symptoms, or increased redness or tenderness.

Bathing

Keep the wound clean and dry after surgery. It is ok to shower as you are able. You may be given a special dressing to cover the incision during showering if your incision is closed with staples. Hair washing is permissible while in the shower.

Do not soak or scrub your incision, only gently wash. Avoid tub bathing for the length of time your doctor recommends.

- **What's normal:** a clean and dry dressing, or a dressing with some staining.
- **When to call:** If you have oozing from the incision. Excessive oozing causing a soaked dressing needs to be brought to our attention.

Medication

Take your medications as prescribed. Do NOT take any anti-inflammatory medication (Advil, Aleve, Motrin, aspirin, ibuprofen, etc.) without checking with your doctor. These can cause bleeding and may interfere with bone healing. If you feel you do not need your pain medication, you may use regular or extra-strength Tylenol.

Your doctor may ask you to wear special stockings called TED stockings. You may stop wearing these as soon as you are up and around at home.

Do not smoke. Smoking delays healing by increasing the risk of complications such as infection and lessens the bones ability to heal.

Nutrition Concerns for your Back Healing

Studies have shown that people who eat at least three meals per day and their weight has been stable for the past 6 months are likely to heal well.

What are some things I should consider after my surgery?

Are you the primary cook in your house? If so you might want to have stock-piled some meals that you can heat & eat after you get home. Things such as lasagna, healthier TV dinners such as those that have at least 400 calories & 20g of protein per serving are helpful to have on hand for at least 2 weeks after you come home from the hospital. Use the guide below to make sure you have a plan to meet all of your nutritional goals.

You may have some nausea after surgery. Some helpful hints to try:

1. Don't take pain pills on an empty stomach. Taking them with crackers, pretzels, dry toast or skim milk may help to avoid nausea.
2. If you do get nauseated, ask for anti-nausea medication.
3. If you develop vomiting, when it stops you may begin to drink small amounts of clear liquids such as broth, apple juice or gelatin. Sometimes ginger ale helps.
4. Once you have gone at least 8 hours without vomiting, you can start eating solid foods.
 - Begin with one food at a time, eat very small amounts.
 - Start with odorless foods that are low in fat and fiber
5. Try chewing dry saltine crackers, pretzels, dry toast, rice or rice cereal, potatoes.
6. Eat small amounts of foods more frequently instead of having large meals.
7. Try to relax.

Use the following guide to make sure you are meeting your nutritional needs:

The body must have all of the nutrients required for repair of tissue for healing to take place. A lack of one or more of these nutrients will limit the rate at which wound healing occurs. Eat nutrient-rich foods for healing.

**All stages of healing need adequate protein, iron and zinc.
The Milk & Meat food groups are rich sources of protein, iron and zinc.**

Milk – Choose 3 servings daily

- Choose fat-free and low-fat milk, cheese and yogurt.
- Dairy foods are rich in protein, Vitamins A, B, D, Calcium and Potassium.
- Each serving provides at least 8 grams of protein.
- **Serving size:** 8 ounces of milk, 8 ounces of yogurt or 1½ ounces natural cheese.

Meats – Choose 4-6 servings daily

- Choose lean beef, fish, poultry, pork, seafood, eggs, dry beans and nuts.
- Meats are rich in B vitamins, iron, zinc and magnesium.
- **Serving Size:** Meat, fish, poultry, pork and seafood = 1 ounce cooked weight. 1 large egg, ¼ cup cooked dried beans (such as black, kidney, pinto, or white beans), ¼ cup of cooked dry peas (such as chickpeas, black-eyed peas, lentils, or split peas), ¼ cup of baked or refried beans, ¼ cup tofu or cottage cheese, 1 tablespoon nut butters.
- Each serving provides about 7 grams of protein.

Healing requires vitamin C and A. Fruits and vegetables are good sources of these vitamins.

Fruits – Choose 1½ cups or more daily – choose brightly colored fruits

- The more color the more vitamin A & C.
- **Examples:** Berries, oranges, red, black or blue grapes, peaches, plums, apricots, cantaloupe, grapefruit, mango, papaya.
- **Serving size:** 1 cup of fresh or canned fruit, or ½ cup of dried fruit.

Vegetables – Choose 2 cups or more daily – choose brightly colored vegetables

- **Examples:** Carrots, spinach, winter squash, tomato, sweet potato, bell pepper, broccoli, kale, corn, red cabbage, brussels sprouts.
- **Serving size:** 1 cup of raw or cooked vegetables, or vegetable juice, or 2 cups of raw leafy greens.

Grains provide necessary B vitamins, iron, magnesium and selenium.

Grains – Choose 4-6 servings daily

- Choose whole-grain, fortified and fiber-rich grain foods.
- At least half should be whole-grain.
- **Serving size:** 1 slice of bread, 1 cup of ready-to-eat cereal, ½ cup of cooked rice, ½ cup cooked pasta, or ½ cup cooked cereal.

Fats are a part of every cell in the body. Fat is needed to absorb some of the vitamins in food.

Fats – Choose 4-6 servings daily

- **Be careful! Too much fat causes weight gain. Being overweight delays wound healing.**
- **Serving size:** 1 teaspoon margarine, vegetable oil or mayonnaise, about 7 nuts, 1 tablespoon Italian, Thousand Island, or mayonnaise based dressings.

Fluids are needed to transport nutrients through the body. The body is 60-75% fluid.

Fluids – Choose at least 6-8 cups of fluid per day unless given other limits by your doctor.

Sample Menus

Women -

1500 calories, 80g protein

Breakfast 1 scrambled egg with 3/4 oz
low-fat cheddar cheese
1 slice whole wheat toast
with margarine or butter
1/2 cup orange juice
1 cup milk, skim
1 cup coffee, tea or water

Lunch 2 tablespoons peanut butter
1 cup spinach, raw
1/2 tomato sliced with
1 tbsp. dressing
2 rye crisp crackers
1/2 banana
1 cup milk, skim
1 cup coffee, tea or water

Dinner 2 ounces sirloin steak
1 small baked potato
1 tablespoon sour cream
1/2 cup carrots
1 whole wheat dinner roll
1/2 cup strawberries
2 teaspoons margarine
1 cup milk, skim
1 cup coffee, tea or water

Snack 1/2 cup peaches
1 cup coffee, tea or water

Men -

2000 calories 100g protein

Breakfast 1 scrambled egg with 3/4 oz
low-fat cheddar cheese
1 slice whole wheat toast
with margarine or butter
1/2 cup orange juice
1 cup milk, skim
1 cup coffee, tea or water

Lunch 2 tablespoons peanut butter
1 cup spinach, raw
1/2 tomato sliced with
1 tbsp. dressing
4 rye crisp crackers
1 banana
1 cup milk, skim
1 cup coffee, tea or water

Dinner 4 ounces sirloin steak
1 medium baked potato
1 tablespoon sour cream
1 cup carrots
1 whole wheat dinner roll
1/2 cup strawberries
3 teaspoons margarine
1 cup milk, skim
1 cup coffee, tea or water

Snack 1/2 cup peaches
1 cup coffee, tea or water

Litchford, M., *The Advanced Practitioner's Guide to Nutrition & Wounds*, 2009.

Adapted from: www.choosemyplate.gov

The American Dietetic Association Nutrition Care manual accessed 4/2012.

**If you still have questions when you get home feel free to contact the Nutrition and Wellness/
Diabetes Education Department at UP Health System-Marquette 906-225-3221 or toll free at
1-800-562-9753, ext. 3221.**

Post Surgery Goals: Walking and Safety

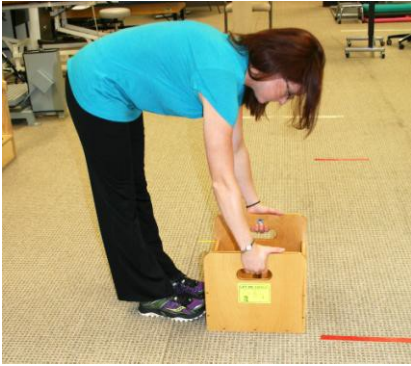
In the weeks prior to lumbar spine surgery, maintain body strength by remaining active within the limits of your pain. This will help you better prepare for surgery, and allow you to recover more quickly after surgery.

Safety: After surgery

1. You will have lifting restrictions given to you by your doctor — typically no lifting objects greater than 10-15 pounds. Do not strain to lift objects of any kind.
2. You cannot push or pull objects such as vacuum cleaners or lawn mowers.
3. No valsalva maneuvers, such as straining to have a bowel movement or exhaling forcibly through your nostrils.
4. No excessively bending at the trunk or sitting for long periods of time.
5. If you were issued a back brace after surgery, you must continue using it.

Other useful safety tips as you recover and begin to increase your activity

1. **Do** keep **all** objects you lift or move as close to your body as possible.
2. **Do** lift with the strength of your legs. **Do not** lift with your back.
3. **Do** always move your feet. **Do not** twist your back.



WRONG



RIGHT – lift with your legs



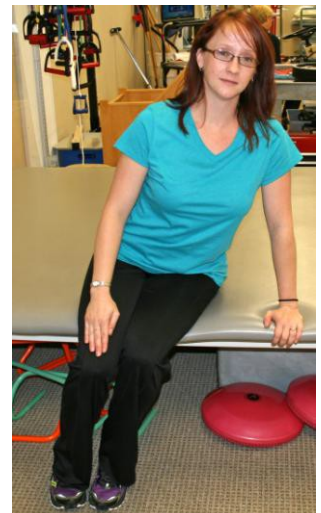
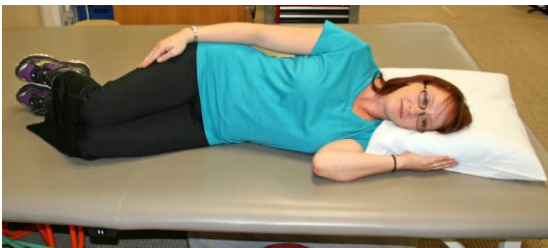
WRONG – twisting your body



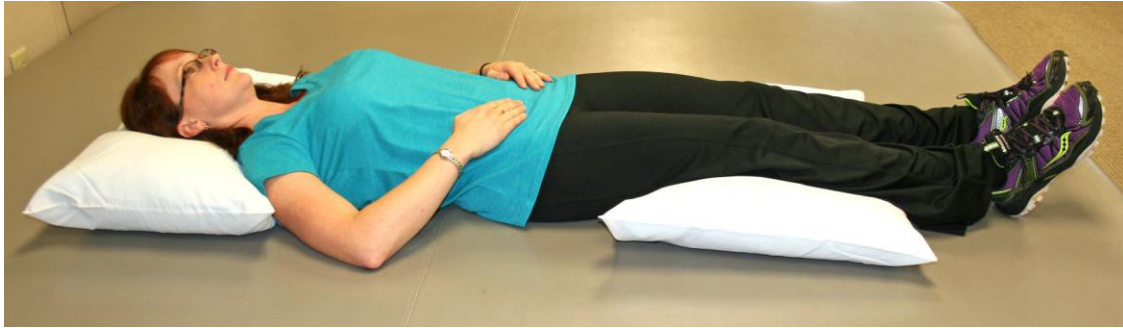
RIGHT – object close without twisting



4. **Getting in/out of bed** – Do not twist your back. Bend your knees and roll to your side before sitting up and as you lay down.



5. Suggestions for positioning in bed if pain is limiting your sleep – try using a pillow between your knees or under your knees to improve comfort.



Important goals for you to accomplish at home:

1. Continue to gradually increase walking intervals each day.
2. The first few days begin by getting up and walking about the house during each TV commercial.
3. Gradually increase walks to 10-15 minute intervals.
4. Continue to increase walks to 10-15 minutes; 4 times a day.
5. Continue basic stretching and range of motion as approved by physician.

If daily activities cause severe pain that does not go away after rest and/or prescribed pain medication, contact your physician.

Home Health Agencies

<u>Aspirus Grandview Home Health</u> Gogegic (MI) & Iron County (WI) Ironwood, but not Berglund	(906) 932-2440	Fax: (906) 932-9772
<u>Aspirus Keweenaw Home Health & Hospice</u> Houghton & Keweenaw Counties	(906) 337-5700	Fax: (906) 337-9929
<u>Baraga Home Care & Hospice</u>	(906) 524-4663	Fax: (906) 524-5603
<u>Northstar Home Care & Hospice</u> Iron River & Watersmeet, MI Tipler & Land O' Lakes, WI	(906) 265-6118	Fax: (906) 265-6135
<u>North Woods Home Care & Hospice</u> Alger County Schoolcraft County Luce County Delta County	(906) 387-4834 (906) 341-6963 (906) 293-3090 (906) 789-2402	Fax: (906) 387-3028 Fax: (906) 341-2490 Fax: (906) 293-8166 Fax: (906) 341-2490
<u>OSF Home Health & Hospice</u> Delta, East Dickinson, & North Menominee Counties	(906) 786-4456	Fax: (906) 786-3693
<u>Portage Home Health & Hospice</u> Houghton & Keweenaw Counties	(906) 483-1160	Fax: (906) 483-1167
<u>Schoolcraft Memorial Home Care & Hospice</u> Schoolcraft County and bordering areas of Delta, Alger, Luce, & Mackinac Counties	(906) 341-3284	Fax: (906) 341-1978
<u>UP Health System Home Care & Hospice</u> Marquette/Alger Counties Delta County Menominee/Marinette Counties	(906) 225-3962 (906) 789-1305 (906) 863-7877	Fax: (906) 225-4889 Fax: (906) 789-9144 Fax: (906) 863-8050
<u>Upper Peninsula Home Health & Hospice</u> Marquette County and bordering areas of Alger & Baraga Counties Available for Walk-In Consults & Set-Ups in Suite 44 at the Upper Peninsula Medical Center	(906) 225-4545 (906) 475-4545 (906) 485-4545	Fax: (906) 225-7543 Fax: (906) 475-9478

Physical Therapy Locations

Escanaba

Body Mechanix.....901 S. Lincoln Rd., Suite B.....(906) 789-1011Fax (906) 789-1500
MTherapies-Doctor's Park Rehab.....710 S. Lincoln Rd, Suite 500.....(906) 789-2639Fax (906) 789-3764
Northwoods Rehab.....501 S. Lincoln Rd.....(906) 789-2404Fax (906) 789-2405
St. Francis Hospital P.T.....2401 Ludington St.....(906) 786-5300Fax (906) 789-4413

Gladstone

Northwoods Rehab.....116 N. 9th St., Suite C.....(906) 428-3085Fax (906) 428-3086

Hancock

Portage Rehab.....500 Campus Drive.....(906) 483-1000Fax (906) 483-1762

Houghton

Body Mechanix.....901 West Sharon Ave., Suite 1.....(906) 483-4800Fax (906) 483-3972
Keweenaw Mem. P.T.700 Sharon Ave(906) 482-8201Fax (906) 482-2771
Portage Health600 Macinnes Drive(906) 483-1888Fax (906) 483-1881

Iron Mountain

Dickinson County Memorial Hospital.....1721 S. Stephenson Ave.(906) 776-5548Fax (906) 776-5478

Iron River

Northstar Rehab229 W. Genesee St.....(906) 265-9123Fax (906) 265-4335

Ironwood

Grandview Hospital P.T.N.....10561 Grand View Lane(906) 932-6052Fax (906) 932-4153
Great Northern Rehab1310 E. Cloverland Drive.....(906) 932-4200Fax (906) 932-4201
Northstar P.T.....216 E. Aurora.....(906) 932-0714Fax (906) 932-6005

Ishpeming

Active Physical Therapy.....820 Carp River Lane, Suite 2.....(906) 204-7400Fax (906) 204-7402
UP Health System-Bell Rehab Services.....901 Lakeshore Drive.....(906) 485-2261Fax (906) 485-2506

Kingsford

Back In Motion PT Clinic.....501 S. Carpenter Ave., Suite B.....(906) 774-2900Fax (906) 774-2902
Bianco's PT & Wellness Center601 S. Westwood Ave.....(906) 779-1880Fax (906) 779-0818
NLJ P.T. Center.....901 Pyle Dr.....(906) 774-3779Fax (906) 774-6121
UP Rehab Services.....101 N. Hooper Street.....(906) 776-9003Fax (906) 776-9063

L'Anse/Baraga

Baraga Hospital Outpatient Rehab.17 W. Broad St.....(906) 524-3445Fax (906) 524-3408

Laurium

Keweenaw Memorial Hospital.....342 Hecla St.....(906) 337-7000Fax (906) 332-4772

Manistique

Schoolcraft Memorial Hospital.....500 Main St.....(906) 341-3254Fax (906) 341-5254

Continued on next page.....

Marquette

Active Physical Therapy..... 1455 W. Fair Ave.....(906) 226-0574Fax (888) 347-1135
Advanced Center for Orthopedics 1414 W. Fair Ave., Suite 190(906) 225-1321Fax (906) 227-5642
Laurie P. Smith/Balanced Body 1055 Baraga Ave.....(906) 226-0143Fax (906) 226-0152
M Therapies-Hand &
Upper Extremity Center 1414 W. Fair Ave., Suite 111(906) 225-4849Fax (906) 225-6710
M Therapies-Marquette..... 555 County Road HQ(906) 225-5900Fax (906) 225-5939
(906) 225-3186Fax (906) 225-4621
Milestones Mobility Center, Inc..... 1414 W. Fair Ave., Suite 348(906) 225-7960Fax (906) 225-7983
Miller P.T..... 712 Chippewa Square(906) 225-9846Fax (906) 225-9848
M.O.S.T..... 1007 Harbour Hills Dr., Ste. A(906) 225-5585Fax (906) 225-5990
Northern Michigan Physical Therapy 1001 M-28 East.....(906) 273-1525Fax (906) 273-1535
P.P.3D Physical Therapy 1025 W. Washington St.(906) 273-2265Fax (888) 395-5031
M Therapies-UP Sports Medicine 1414 W. Fair Ave., Suite 101(906) 228-2595Fax (906) 228-3313

Munising

Munising Outpatient Rehab (MMH) 1500 Sand Point Rd.(906) 387-4110Fax (906) 387-6622

Negaunee

Active Physical Therapy..... 350 Iron Street.....(906) 401-0196Fax (906) 401-0276
M Therapies-Negaunee 400 U.S. Hwy 41 East.....(906) 475-6441Fax (906) 475-6445

Newberry

Helen Newberry Joy Hospital 502 W. Harrie St.....(906) 293-9231Fax (906) 293-9126

Ontonagon

Aspirus Ontonagon Hospital..... 400 River St.....(906) 884-6054Fax (906) 884-6040

St. Ignace

Mackinac Straits Hospital P.T. 220 Burdette St.(906) 643-8585, Ext. 450.....Fax (906) 643-0465

Sault Ste. Marie

War Memorial Rehab..... 2472 Ashmun St.(906) 635-4426Fax (906) 635-4610

Sawyer

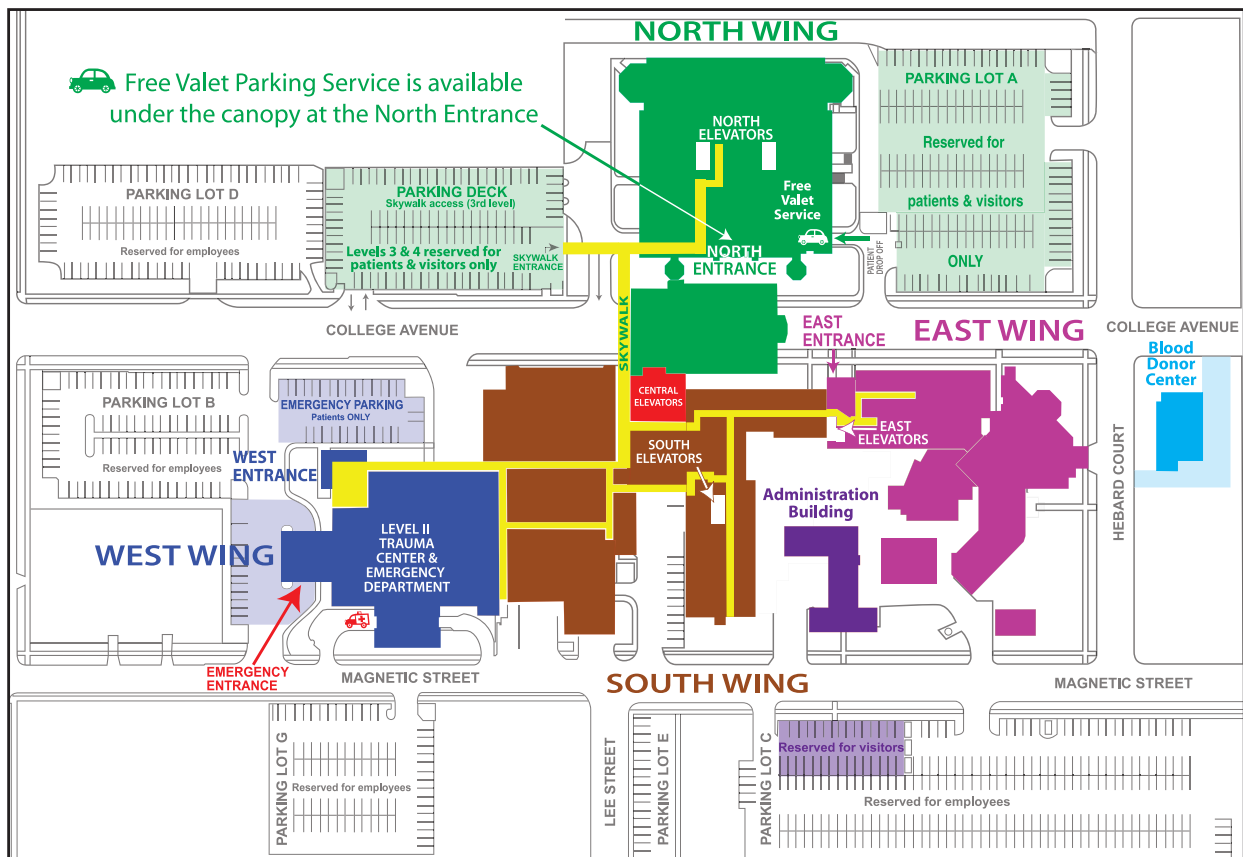
M Therapies-Sawyer Rehab 301 Explorer St., Suite F(906) 346-3837Fax (906) 346-4075

****This list may not be complete for every area of the U.P.
Please check your local listings for more options.***

For all Surgical Patients

Where To Go:

There is parking for patients in designated areas in each parking lot and in the parking deck. **Free valet parking** is available at the entrance to the North Wing on College Ave, Monday-Friday, beginning at 7:30am.



Please report to the Outpatient Surgery Department on the 5th floor of the South Wing. Take the Central elevators to the fifth floor and proceed to the opposite end of the hall.

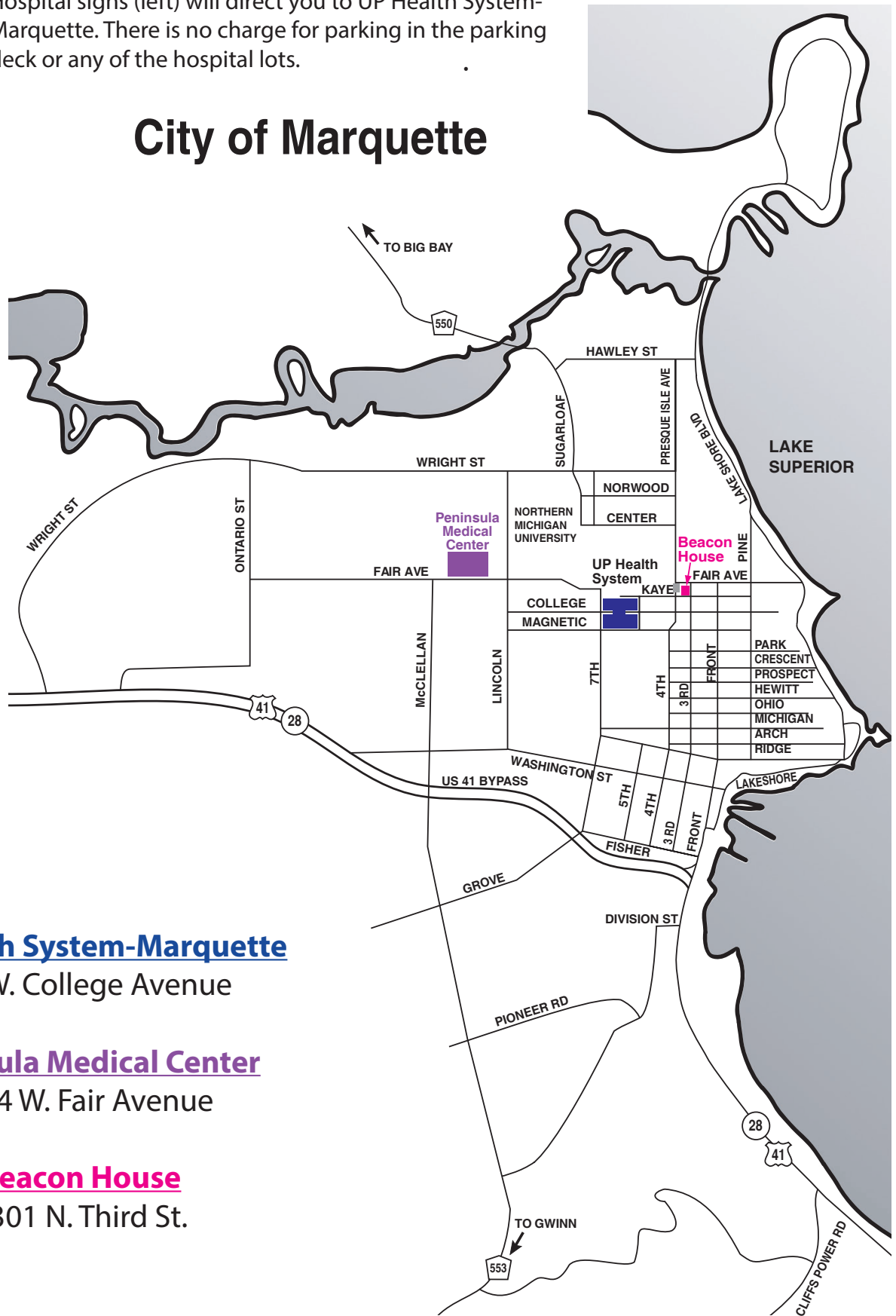
Steps to Safer Surgery

- Stop Smoking: smoking raises your chances of pneumonia and breathing problems after surgery
- Use your Incentive Spirometer (lung exercise tool) before and after surgery: this strengthens lung muscles and improves lung function
- Cough and deep breathe: this moves mucus out, strengthens lung muscles and clears your lungs. THIS IS VERY IMPORTANT AFTER SURGERY!
- Daily exercise such as walking, biking or swimming: this strengthens your heart and lungs as you prepare for surgery
- After surgery keep your head up (do not lay flat), sit in a chair or walk: to improve lung function and reduce lung congestion
- After surgery walk every hour: it lowers chances for pneumonia and blood clots in the legs, improves gut, heart and lung function. THIS IS THE MOST IMPORTANT THING YOU CAN DO!
- Control blood sugars by taking prescribed medications, follow diet and check blood sugars: high blood sugars increase problems
- Nutrition: eat healthy, well-balanced meals and avoid high sugar and fatty foods



Hospital signs (left) will direct you to UP Health System-Marquette. There is no charge for parking in the parking deck or any of the hospital lots.

City of Marquette



UP Health System-Marquette

580 W. College Avenue

Peninsula Medical Center

1414 W. Fair Avenue

Beacon House

1301 N. Third St.

Appendix A

Health Care Provider Phone Numbers

Health Care Provider	Name	Phone Number
Nurse		
Occupational Therapist		
Physical Therapist		
Surgeon		
Primary Care Doctor		

Other Phone Numbers

Name	Phone Number	Comment

