



ORTHOPEDIC SPINE SURGERY GUIDEBOOK

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About the Orthopedic Spine Program

When you choose NMC Health's Orthopedic Spine program, you get a whole team of specialists focused on helping you feel better. Led by Dr. Abhijeet Kadam, our team is here to give you the answers to your questions.

When you put your trust in us, rest assured that we will find the best ways to manage your pain or treat your injuries and conditions. It's a partnership. We work with you to make you feel better.

Our goal is to improve your quality of life by providing compassionate and expert care.

About NMC Health

NMC Health is an award-winning medical care system focused on improving health throughout Newton, Kan., Harvey, and surrounding counties.

Featuring a 103-bed hospital located at the intersection of I-135 and Highway 50, and 10 primary care and specialty clinics, NMC Health's services and specialties include emergency medicine, surgical services, therapy, occupational medicine, home health, and more.

For more information, visit www.myNMCHHealth.org.

NMC HEALTH

ORTHOPEDIC SPINE PROGRAM

Dear Patient and Family,

Welcome to the Orthopedic Spine program at NMC Health! Your health is our top priority, and we are honored to be a part of your journey.

This guidebook was created by our spine surgeon, physical and occupational therapists, nurses and case managers. They are all members of your care team while at NMC Health. We hope this guide will help you and your family understand what to expect before, during and after your surgery.

We encourage you to keep this guidebook with you throughout your entire journey with us, including the pre-surgery class and your hospital stay.

We intend for the information in this guide to be thorough. However, please know that your hospital experience may vary depending on the type of surgery and your individual needs.

As we help you get on the road to less pain, we want you to know that your journey is a partnership between you and all of us at NMC Health. Our team has special training to care for spine patients and will give you the best care possible. We will work with you and your family to arrange services and treatments before, during and after your hospital stay. Our goal is to provide you with the best possible care and to support your recovery.

We know that the idea of having spine surgery can cause anxiety. We will be with you during every step of your journey with us. If you or your family have any questions or concerns, please call us at (316) 283-9977.

Thank you for choosing NMC Health to help you achieve a life with less pain. As always, your health is our focus.

Sincerely,



Abhijeet Kadam, M.D.



Your Orthopedic Spine Team

Before, during and after surgery, you will come in contact with many different members of your orthopedic care team. Many you may see often and others you may only see once or twice. Some you will meet are:

- **Orthopedic Spine Surgeon:** Abhijeet Kadam, MD, is your orthopedic spine surgeon and will perform your spine surgery.
- **Physician Assistant (PA):** Christian Cox, PA, is the physician assistant who will work closely with your surgeon to oversee your care before, during and after your surgery.
- **Clinic Surgery Coordinator:** RN who will schedule your surgery, discuss your medications before surgery, coordinate clearances you need, and is the best contact for questions related to pre-surgery care.
- **Nurse Navigator:** May also be referred to as Case Management. This is the nurse who will coordinate your care with your surgeon, referring physician and other hospital staff.
- **Registered Nurse (RN):** Most of your care will come from a specially-trained nursing team. They are responsible for your medical needs and will carry out all orders given by your surgeon.
- **Physical Therapist (PT):** Your physical therapist will help teach you how to use needed equipment safely and correctly.
- **Occupational Therapist (OT):** Your occupational therapist will teach you how to perform daily tasks such as showering or dressing without hurting your recovery.

Abhijeet Kadam, MD



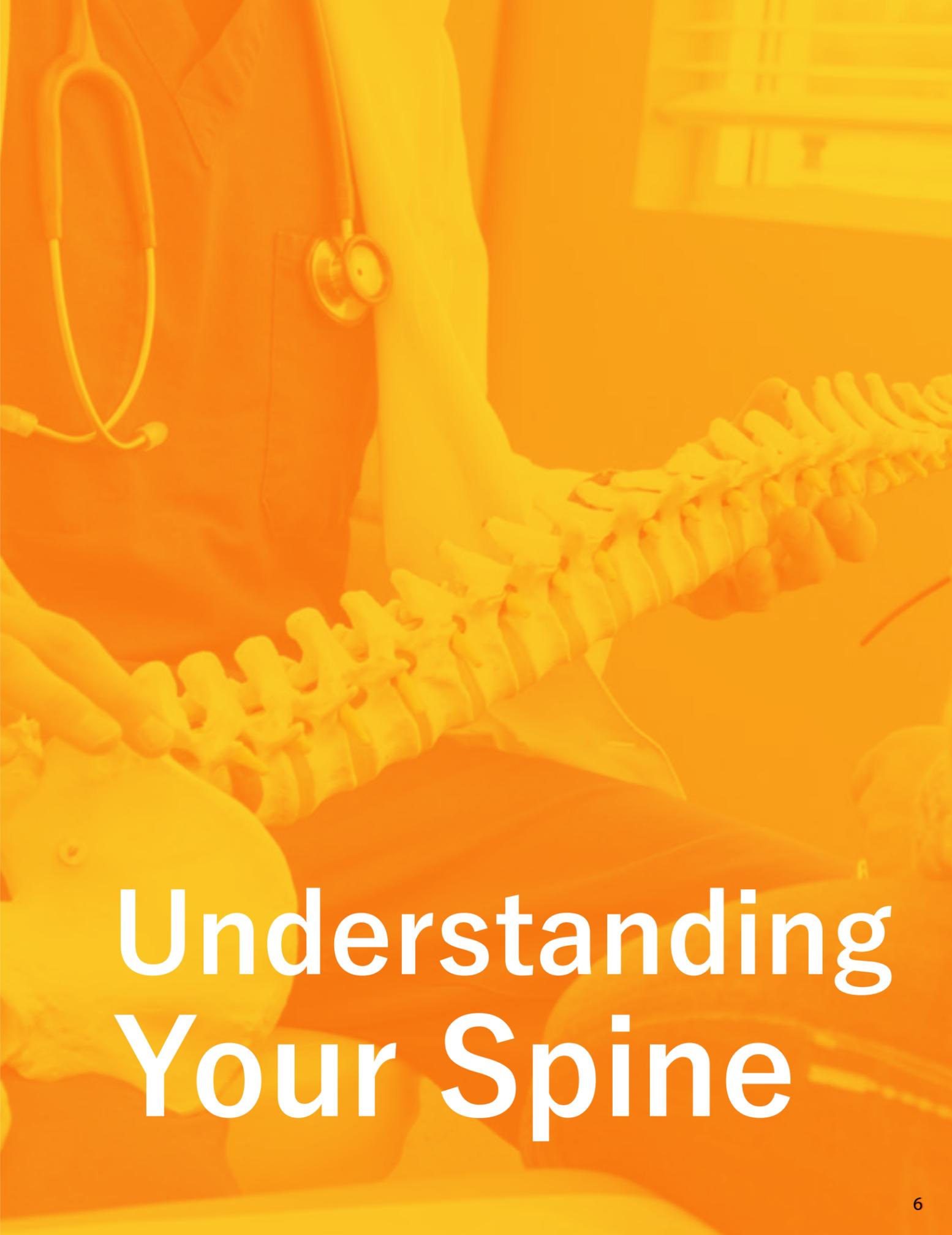
Christian Cox, PA



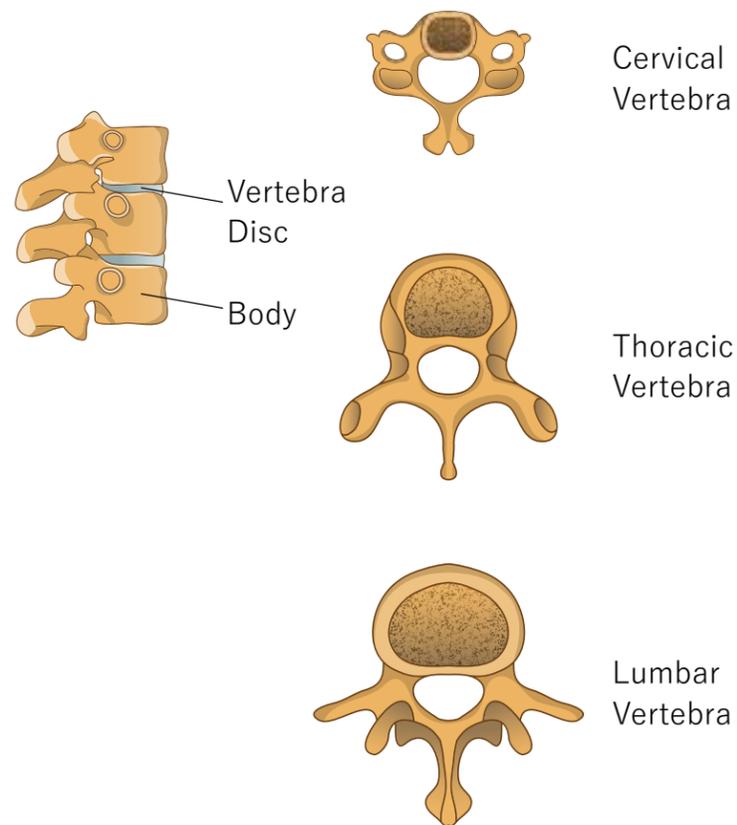
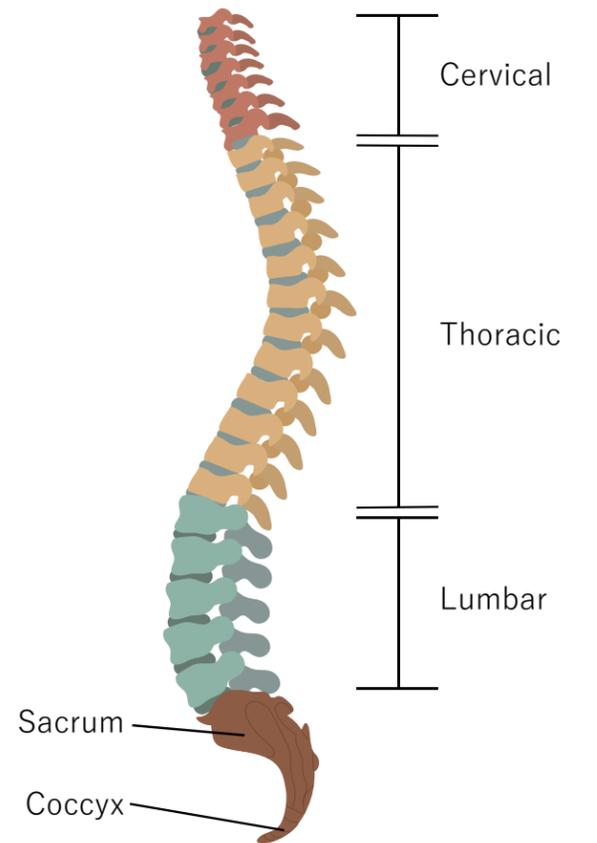
Contact Us

It's important that you feel comfortable and confident before your surgery. Should you ever have any questions or concerns, please contact us:

Orthopedic & Sports Medicine.....(316) 283-9977
Nurse Navigator..... (316) 804-6222
Hospital Front Desk.....(316) 283-2700
Clinic Surgery Coordinator.....(316) 804-6215
Surgical Nursing Unit(316) 804-6195



Understanding Your Spine



Spine 101

The spine is made up of a series of bones, called vertebrae. There are 7 cervical, 12 thoracic, and 5 lumbar vertebrae.

Cervical Spine (7 vertebrae)

The neck, also called the cervical spine, is made up of bones, nerves, muscles, ligaments and tendons.

The cervical spine has seven stacked bones, labeled C1 through C7. The top of the cervical spine connects to your skull, and the bottom connects to your upper back at about your shoulders.

Thoracic Spine (12 vertebrae)

The thoracic spine is the longest region of your spine and the most complex. It connects to the cervical spine above and the lumbar spine below. The thoracic spine runs from the base of your neck to the stomach. It is the only spine region that connects to the rib cage.

Lumbar Spine (5 vertebrae)

The lumbar spine, or lower back, is made up by bones, discs, nerves, muscles, ligaments, and blood vessels. The spinal cord ends at the top of the lumbar spine, and the rest of the nerve roots go down the spinal canal.

Sacrum

The sacrum is located behind your pelvis. Five bones make up the triangular-shaped spine section. The sacrum fits between the two hip bones connecting the spine to the pelvis.

Coccyx

The coccyx is the bone that makes up the very bottom of the spine. It is also known as your tailbone.

Vertebrae

The spine is made up of many bones called vertebrae, known as the building blocks of the

spine. These bones are stacked on top of each other and attached with a disc in between each one.

Vertebral Discs

Between each bone in the spine is a disc. There are 23 discs in the spine and they have three main jobs:

- To act as cushions in the spine.
- To hold the vertebrae of the spine together.
- To allow a little movement in the spine.

Problems with any of these discs may create symptoms, like pain that starts in the disc itself and/or pain from a disc pressing on a nerve.

Muscles, Tendons and Ligaments

Spinal muscles, tendons and ligaments work together to keep the spine stable.

In the spine:

- Muscles make the body move.
- Tendons connect the muscles to the spine.
- Ligaments hold the bones together and limit motion. If overstretched, they can cause weakness in joints.

Types of Spine Surgeries

Spinal Fusion

This surgery is used to correct problems with the bones of the spine (or vertebrae). A fusion joins two or more vertebrae of your spine together. During the surgery, your surgeon places a bone graft (real pieces of bone or bone-like material) in the space between two spinal vertebrae. Metal plates, screws, and rods may be used to hold the bones together, helping them heal into one unit.

Spinal fusions are done for various reasons, but are most commonly done to treat:

- Spinal stenosis (narrowing of the spinal canal) causing pain
- Pinched spinal nerves in the neck or back
- Abnormal curves of the spine
- Weak or unstable spine
- Injury or fracture to the spine

Types of Fusions

Anterior Cervical Discectomy and Fusion (ACDF)

– Your surgeon will remove a damaged disc in the neck area of the spine. The cut is made in the front of the spine through the throat area. After the disc is removed, the surgeon fuses the bones above and below the disc space together using a bone graft.

Lumbar Interbody Fusion – Your surgeon will first remove a disc between two vertebrae of the spine. It is replaced with an implant to help keep the spine straight. A bone graft will also be inserted in the space made between connecting vertebrae to help them fuse together. Your surgeon will choose the best way to access your lumbar spine:

- From the front (Anterior Lumbar Interbody Fusion - ALIF)
- From the back (Transforaminal Lumbar Interbody Fusion - TLIF)
- From the front at an angle (Oblique Lumbar Interbody Fusion - OLIF)
- From from the side (Lateral Lumbar Interbody Fusion - XLIF)
- From the middle of your back (Posterior Spinal Fusion - PSF)



Minimally Invasive Surgeries

Some spine surgeries, like spinal fusions, can be done using a few small cuts instead of one large one. This allows for early healing of incisions and faster overall recovery.

Other Spine Surgeries

Osteotomy – In this surgery, part of a spine bone is cut and removed. Spinal osteotomies are usually needed to fix defects or strange curving of the spine (scoliosis). The bone is cut, the spine is straightened, and then hardware is used to keep the spine in the correct place.

Laminectomy/Laminotomy – A laminectomy involves removing the lamina, the back part of the vertebra that covers your spinal canal. By doing this, there is more space in your spinal canal and pressure on the spinal cord and/or nerves is relieved. While a laminectomy is the complete removal of the lamina, only part of the

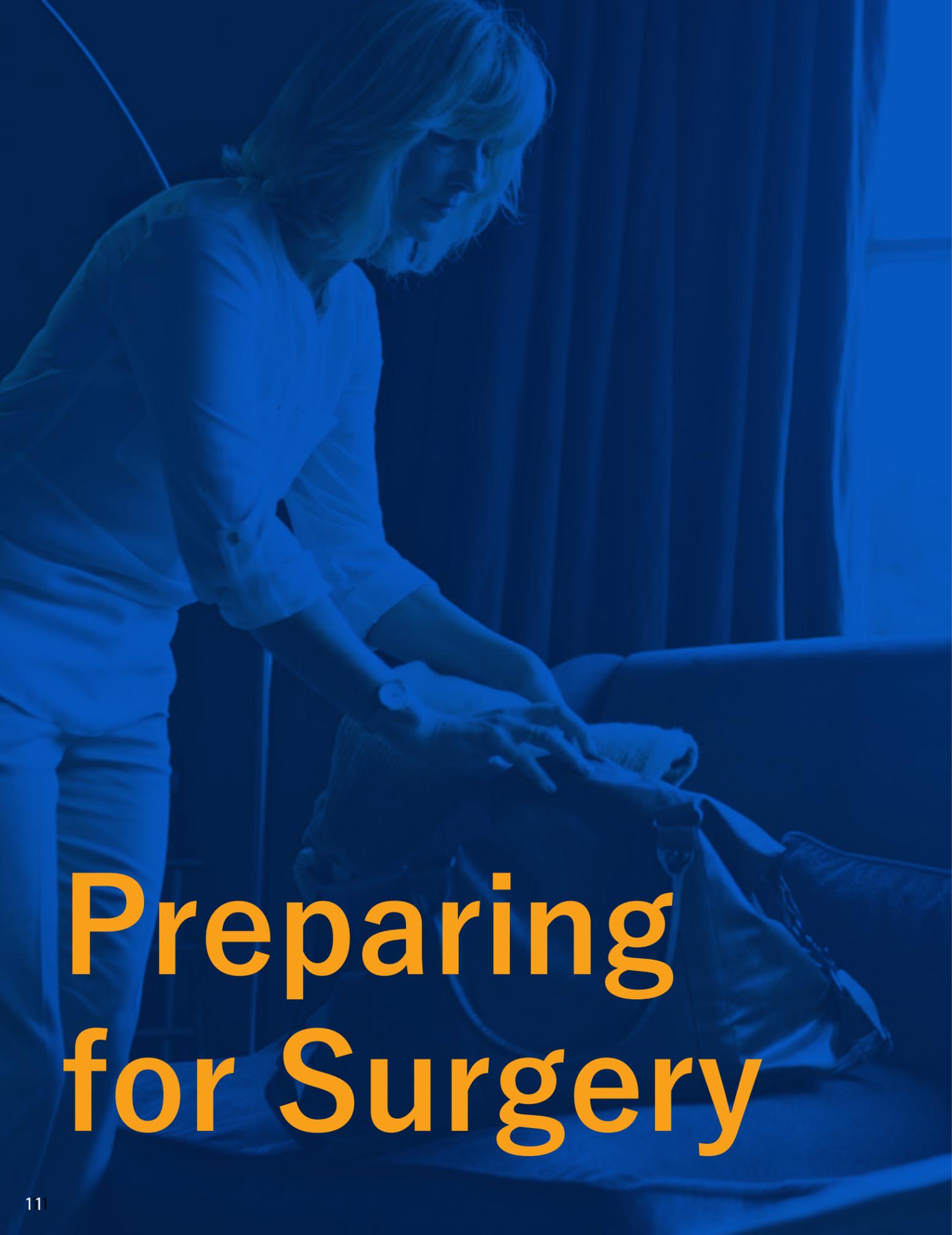
lamina is removed in a laminotomy.

Kyphoplasty – In a kyphoplasty, which is similar to a vertebroplasty, cement is put into a fractured or collapsed vertebrae. This surgery helps to restore the original shape and height of the spine, relieving pain caused by fractured vertebra that has not healed.

Discectomy - This surgery removes a damaged disc that is pressing on a nerve or the spinal cord.

Foraminotomy - This surgery eases pressure on nerves by increasing the space between two vertebrae where nerves leave the spinal cord.

Corpectomy - This surgery removes all or part of the vertebral body (the large, front part of the vertebrae) to create space for the spinal cord and nerves.



Preparing for Surgery

Pre-Surgery Appointments

Medical

Before surgery, you will visit your primary care doctor, who will do an exam and may order tests. Your surgeon will get these results, and your doctors will decide if you are ready to have surgery.

If you see a specialist (heart, kidney, arthritis, etc.), you may need to meet with them before surgery. They will review your current list of medicines for any that may need to be stopped for your surgery. See next page.

Dental

Germs from an infection in your mouth can create problems after surgery. If you are worried about dental infections, visit your dentist at least 6-8 weeks before surgery to avoid delays.

Do not plan any dental visits for three months after surgery to avoid infections.

Pre-Admission Testing

The Clinic Surgery Coordinator will contact you to get your health history and list of medicines. They will set up a time for you to get lab work and any other needed tests done before your surgery.

Pre-Operative Class

Before surgery, you will have the option to attend a pre-surgery education class, which is led by the Nurse Navigator. This book, and the class, should help you get ready for surgery. The class includes an overview:

- Of your surgery
- What to expect during your hospital stay
- Discharge planning.



IMPORTANT:

Before surgery, tell your surgeon if you think you may have an infection, cold, flu, fever or find a rash or sores on your abdomen, back, or legs.

Medicines*

When you schedule your surgery, we will go over your medical history and all of your medicines with you. Why? Some medicines (like over-the-counter, vitamins and herbal supplements) may make you bleed more during surgery, have bad effects on bone healing or make you more likely to get sick after surgery. You will be told which medicines you need to stop before surgery.

You will need to stop the medicines listed below 7 days before your surgery, or as told. Always talk to the doctor who told you to take these medicines before you stop. If you are asking to have surgery sooner than you are scheduled, you should stop taking them now.

Aspirin & Medicines Containing Aspirin: If one of your doctors told you to take aspirin, please check with that doctor before stopping. Examples of these medicines include:

- Aggrenox®
- Bayer®
- Fiorinal®
- Ecotrin®
- Excedrin®
- Percodan®

Cold or Migraine Medicines: Check with your doctor or pharmacy to see if your medicines have aspirin in them. You may take acetaminophen (Tylenol) or medicines containing acetaminophen as prescribed.

Don't take extra acetaminophen if you are currently taking medicines with acetaminophen in them, such as:

- Hydrocodone/acetaminophen (Norco, Vicodin)
- Acetaminophen with codeine (Tylenol #3)
- Oxycodone/acetaminophen (Percocet)

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs): Examples of these medicines include:

- Celecoxib (Celebrex®)
- Choline Salicylate (Arthropan®)

- Choline Magnesium Trisalicylate (Trilisate, Tricosal®)
- Diclofenac (Arthrotec, Cataflam, Voltaren®)
- Diclofenac patch (Flector®)
- Diflunisal (Dolobid®)
- Etodolac (Lodine®)
- Fenoprofen (Nalfon Pulvules®)
- Ibuprofen (Advil®, Motrin®, Midol®, Nuprin®)
- Indomethacin (Indocin®)
- Ketoprofen (Orudis KT®, Oruvail®, Actron®)
- Ketorolac (Toradol®)
- Magnesium Salicylate (Doans Backache Pain Relief®, Mobidin®, others)
- Mefenamic Acid (Ponstel®)
- Meclofenamate Sodium (Meclomen®)
- Meloxicam (Mobic®)
- Nabumetone (Relafen®)
- Naproxen (Aleve®, Anaprox®, Naprelan®, Naprosyn®)
- Oxaprozin (Daypro®)
- Piroxicam (Feldene®)
- Salsalate (Amigesic®, Argesic®, Salflex®)
- Sulindac (Clinoril®)
- Tolmetin (Tolectin®)

If you are having a spinal fusion surgery, you should NOT take NSAIDs until your surgeon says it is okay (3-6 months after surgery). These medicines can impede fusion growth. This could cause the fusion to not work.

Osteoporosis Medicines & Joint Health

Supplements: Most osteoporosis medicines (such as Fosamax or Boniva) should be stopped 30 days before surgery if possible or as soon as possible (if surgery is less than 30 days away).

Forteo (teriparatide) is an exception and should be continued up until surgery.

Stop joint health supplements at least 7 days before surgery.

If you are having a spinal fusion surgery, you should NOT take drugs like Fosamax until your surgeon says it is okay (3-6 months after surgery). These medicines can impede fusion growth. This could cause the fusion to not work.

Stroke or Blood Clot Prevention Medicines: If you are currently taking any stroke or blood clot prevention medicines (blood thinners), please let your surgeon know. Call the doctor who told you take these medicines - they will help you slowly stop before your surgery. Examples of these medicines include:

- Coumadin (Warfarin®)
- Heparin
- Danaparoid (Orgaran®)
- Dalteparin (Fragmin®)
- Enoxaparin (Lovenox®)
- Fondaparinux (Arixtra®)
- Tinzaparin (Innohep®)
- Aspirin & Dipyridamole (Aggrenox®)
- Dipyridamole (Persantine®)
- Clopidogrel (Plavix®)
- Ticlopidine (Ticlid®)
- Apixaban (Eliquis®)
- Dabigatran (Pradaxa®)
- Rivaroxaban (Xarelto®)

*Medicines are listed with generic names first, then brand names if available.

Other Medicines: If you are taking any of the medicines listed below, call the doctor who told you to take these medicines. They will help you slowly stop before your surgery.

- Isocarboxazid (Marplan®)
- Phenelzine (Nardil®)
- Selegiline (Eldepryl®, Carbox®)
- Tranylcypromine (Parnate®)
- Rasagiline (Azilect®)
- Furazolidine (Furoxone®)
- Linezolid (Zyvox®)
- Procarbazine (Matulane®)

Vitamins/Herbal Supplements requiring

Special Consideration: Taking a multi-vitamin with 100% of the daily recommended doses of vitamins is fine. Please limit your daily intake of vitamins to the recommended daily dose (do not take “Mega dose” supplements).

Vitamin E over 100 IU (units) is a blood thinner and should be stopped at least 7 days before surgery.

Herbal Preparations: All herbal medicines, and many over-the-counter supplements, should be stopped at least 7 days prior to surgery. This applies to supplements in capsule form, not the use of fresh herbs in cooking. Examples include:

- Ginkgo Biloba
- Fish Oil
- Turmeric
- Etc.

Spinal fusion patients may be asked to stop taking these medicines for at least 3 months after surgery, as they could slow fusion growth. If you are not sure, please check with your surgeon’s office.

Medicines at the Hospital

Please make sure the hospital has an updated list of all medicines you are taking. This list should include:

- Your current medicines including supplements
- Correct name, dosage, time of day and directions for each medicine
- Allergies (with reactions)
- Your pharmacy name & phone number

Please bring a current list to the hospital with you, even if you think the hospital has a current list.

Questions?

If you have any questions about this list or if any medicines or supplements you are taking must be stopped, please contact the Clinic Surgery Schedulers at (316) 804-6215 or (316) 804-6249.



Surgery and Smoking¹

Smoking causes many issues that can be avoided, like heart and lung (breathing) diseases and many cancers. Smoking also has really bad effects on bones, muscles and joints, and can lead to issues after surgery.

Smoking limits your body's chances to heal. It may be the biggest cause of issues after surgery. The most common issues include:

- Slow wound healing
- Infection
- Failed results of surgery
- Bones can take longer to heal in smokers because nicotine slows the creation of bone-forming cells.

Quitting 4–6 weeks before your surgery and staying smoke-free 4 weeks after can lower your chance of wound issues by 50%. Quitting for good can add years to your life.²



Resources to Help You Quit²

It is important to quit smoking before your surgery. Talk to your doctor about the best option to help you quit.

- The National Alliance for Tobacco Cessation's program has proven methods to help you quit. Visit becomeanex.org for more information.
- The American Lung Association's online "Freedom from Smoking" program gives you the tools and education you need to quit.
- The American Cancer Society has resources on its website or by calling 1-800-227-2345.
- Resources from government and expert groups that help you quit.
 - www.CDC.gov/tobacco
 - www.smokefree.gov

¹orthoinfo.aaos.org/en/treatment/surgery-and-smoking/

²www.facs.org/education/patient-education/patient-resources/prepare/quit-smoking

Within 20 minutes of quitting, your body begins many changes that go on for years.

cdc.gov

**20
minutes**

Your heart rate drops.

**8
hours**

Carbon monoxide levels in your blood drops to normal.

**2
weeks**

Your risk of a heart attack begins to drop and lung function begins to improve.

**1
month**

Your coughing and shortness of breath decreases.

**1
year**

Your added risk of coronary heart disease is half that of a smoker's.

**5
years**

Your stroke risk is reduced to that of a nonsmoker's 5-15 years after quitting.

**10
years**

Your lung cancer death rate is about half that of a smoker's. Your risk of cancers of the mouth, throat, esophagus, bladder, kidney, and pancreas decreases.

**15
years**

Your risk of coronary heart disease is back to that of a nonsmoker's.

Nutrition

You should maintain a healthy diet with fruits, vegetables, protein and whole grains.

Here are tips to help you keep a healthy diet*:

1. **Choose foods with a wide variety of colors and textures, in their most natural forms.** Fill at least one half of your plate with fruits and vegetables. Don't limit yourself to a single vegetable, mixing a variety makes it more enjoyable.
2. **Avoid or really cut down on eating processed foods.** Many believe that sugar is the 'new tobacco' due to health issues related to glucose levels, obesity, and diabetes. Recent studies show that artificial sweeteners and diet soda may even do harm. Consider reducing sodium (salt) in your diet.
3. **Choose realistic, balanced nutrition for weight loss and maintenance.** The most successful diet is one that you can stick to. When diets fail, it is often because plans are too restrictive, unbalanced or cause rapid weight loss, which leads to yo-yo dieting.
4. **Eat healthy oils for heart health.** Fish oils are good for those with a history of heart disease. The AHA recommends eating fish that are rich in omega-3 fatty acids (salmon, trout, tuna, etc.) Other good fats include olive oil, avocado oil, canola oil, walnut oil, flaxseed oil and chia seed oil.
5. **Avoid red meat and live longer.** Although red meat is a key source of protein and fat, research shows that eating red meat is linked to increased risks for cancer, diabetes and heart disease.
6. **Eat probiotics and fiber for digestive and overall health.** Probiotics and fiber are commonly found in unpasteurized fermented foods and drinks, like yogurt and kefir. They can also be taken as a supplement.



TIP: Severe constipation is common after surgery due to the narcotic pain medicines and decreased activity. Increasing fluids and fiber intake can help prevent constipation. Also, taking a stool softener before surgery may help. Starting the day before surgery, take a stool softener (ex. Colace®) twice a day, with breakfast and dinner. You will want to be sure that you have MiraLAX® and Milk of Magnesia available after surgery.

*kphealthyme.com/Healthy-Eating-Active-Living-Programs/Education-libraries/Plant-Based-Diet.aspx

Weight Management

Keeping a healthy weight is an important part of feeling good and preventing health issues. Balance your diet and activity levels to help keep your weight within the right levels for your height.

Find out if you are at a healthy weight by calculating your Body Mass Index (BMI) at www.cdc.gov/healthyweight.

If your BMI is 30 or above and you want to lose weight, there are several resources available. When thinking about a weight loss plan, ask your doctor for help. If you want to speak with a dietitian during your hospital stay, please let the Nurse Navigator know.

Weight Loss*

When you try to lose weight, diet is far more important than exercise. Think of it like this -

- All of the calories you take in come from food and drinks, but only a small part of your calories are burned from exercise.
- For most people, 60-80% of their total energy is used to keep the body running (blood pumping, lungs breathing, brain working, etc.)
- About 10% of calories are burned by breaking down food, which means about 10-30% are lost through physical activity.

Physical activity is any type of movement (walking, typing, playing, etc.). That means exercise is only a small part of that 10-30% of calories. While physical activity is good, it doesn't come close to burning the number of calories you eat.

Slow and steady wins the race when it comes to weight loss. According to the US Centers for Disease Control and Prevention (CDC), "Evidence shows that people who lose weight slowly (about 1 to 2 pounds per week) are more successful at keeping weight off."

*www.cnn.com/2019/01/04/health/diet-exercise-weight-loss/index.html

Don't Reward Exercise with Food

According to Harvard Medical School, a 185-pound person burns 200 calories in 30 minutes of walking at 4 miles per hour (15 minutes per mile). It's easy to undo all that hard work by eating four small chocolate chip cookies, 1.5 scoops of ice cream or less than two glasses of wine.

The thought is that you "earn" what you eat after working out. But you'd be better off not working out and simply eating less if your goal is to lose weight.



Recovery Time

Expected Time in The Hospital

To have a good recovery, giving your body time to heal is just as important as what happens during your surgery. Make sure you have a plan in place. Start with the time you expect to be in the hospital following surgery. Use this table as your guide.

The numbers of days shown below are only estimations. Your actual length of stay in the hospital may vary based on many factors, like your rate of recovery, activity level after surgery, pain control, etc.

Type of Surgery	Expected Length of Stay in the Hospital*
1-2 Level Cervical Fusion	1-2 days
3-5 Level Cervical Fusion	2-3 days
1-2 Level Thoracic/ Lumbar Fusion	2-3 days
3-5 Level Thoracic/ Lumbar Fusion	3-5 days
6-11 Level Fusion	3-4 days
12+ Level Fusion	5-7 days
Lumbar Laminectomy	1-2 days
Laminotomy	0-1 day
Cervical Laminoplasty	1-2 days
Kyphoplasty/ Vertebroplasty	0-1 day
Lumbar Microdiscectomy	0-1 day

Some patients who have minimally invasive surgeries should expect to go home on the same day. Your surgeon will tell you if you are one of these patients.

*Note: The day of surgery is day 0, while the day after surgery is day 1. For example, if your laminectomy is on Monday, you can expect to leave the hospital on Tuesday or Wednesday (1-2 days).

Expected Time off Work

Use this table to help you plan and prepare for your recovery.

Disc/Laminectomy/Foraminotomy	Sedentary Occupation	Labor Occupation
One or two levels	4-6 weeks	8-10 weeks

Lumbar/Cervical Fusions	Sedentary Occupation	Labor Occupation
1 Level	6-8 weeks	12-14 weeks
2 or more levels	6-8 weeks	12-14 weeks

If you need to file FMLA or short-term disability paperwork, please bring it to the clinic before your surgery. Your surgeon will complete the necessary portion of the paperwork.

Personal Assistance

Make sure you choose a coach. Ideally, this person will help you before, during and after your hospital stay. Not only is it important to have a friend or family member by your side for physical help, but for emotional support, too.

Most patients are able to go straight home after leaving the hospital. If so, you should not plan to be alone more than an hour or two at a time for one week after your surgery, and for at least two weeks after complex spine surgery. This includes nights. If you live alone and are unable to arrange for someone to stay with you at home, please contact your case manager.

Are you interested in hiring a personal attendant to assist you at home for bathing, laundry, cleaning, etc.? Your case manager can help you with this. Please know that your insurance may not cover services outside of health care.

You'll need help with:

- child, elder and pet care
- cleaning and laundry
- grocery shopping
- transportation to appointments

Special Care Planning

During your recovery in the hospital, you may find that you need more time to recover before going home. If this is the case, you may go to a continuing care facility (inpatient rehab unit, skilled nursing facility, etc.) or have home care help you when you get home.

To decide this, your therapists will look at different parts of your recovery (rate of recovery, movement, pain, etc.).

If you think you'll need a rehab facility or nursing home that offers 24/7 care, please talk with your case manager/nurse navigator. You may reach them at 316-804-6222.

We will work with you to make sure your journey from the hospital to your home is as smooth as possible.

NMC Health's Home Care & Private Duty can help too! To learn more, call 316-283-8220.

Preparing Your Home

It is best to have your home ready before your surgery. This will help reduce fall risks and stress on your body after surgery.

The following list will help make sure your home is ready:

- Clean, do laundry; put clean linens on your bed.
- Pick up throw rugs; tack down loose carpeting.
- Remove power cords from walkways.
- Install night lights in bathrooms, bedrooms and hallways.
- Install grab bars or hand rails in your shower or bath.
- Install hand rails on staircases.
- Move furniture and other objects that are blocking walkways. Make sure walkways are wide enough for a walker to get through.
- Prepare to live on one level of the house after returning home, if possible.
- Place a non-skid mat in the tub or shower.
- Raise the height of your bed, chair or toilet seat, if needed.
- Move items used often to an easy-to-reach location, ideally on a surface between your hips and shoulders.
- Prepare easy-to-make or frozen meals.
- Ask friends or family to help with chores during your recovery.

Any home equipment you need will be recommended by your therapists and ordered before you leave the hospital. It is very rare that a hospital bed is needed at home.

These items may also be helpful to you after surgery:

- Sock aide
- Reacher/grabber tool
- Long-handled sponge
- Long-handled shoe horn
- Dressing Stick
- Toilet Tongs

Please know that insurance may not pay for equipment and you may have to buy it. Please contact your insurance company if you have specific questions or concerns.

Examples of home equipment typically not covered by insurance: shower chairs, raised/elevated toilet seats, shower grab bars, etc.

Durable Medical Equipment (DME) Providers

Front-wheeled walkers, toilet risers and shower chairs may be purchased or borrowed at:

Apria Healthcare

318 N. Cleveland Ave.
Wichita, KS 67214
(316) 689-4500

Broadway Home Medical

808 S. Hillside St.
Wichita, KS 67211
(316) 264-8600

3737 W. Central
Wichita, KS 67203
(316) 719-2223

Hart Medical Equipment

6217 E. 13th St. North
Wichita, KS 67208
(316) 683-5330

Health E-Quip

120 E. 12th St.
Newton, KS 67114
(316) 804-4008

803 E. 30th Ave.
Hutchinson, KS 67502
(620) 665-0528

1318 N. Main
McPherson, KS 67460
(620) 241-3034

Independent Living Resource Center - Medical Equipment Recycling Network

3033 W. 2nd St. North
Wichita, KS 67203
(316) 942-6300

Medical Loan Closet of Wichita

6655 E. Harry
Wichita, KS 67207
(316) 779-8989



Three Days Before Surgery

Shower with a chlorhexidine gluconate (CHG)* cleanser daily for three days before your surgery. This includes the night before and the day of your scheduled surgery.

*CHG is a special soap that will be provided to you before your surgery. CHG ensures that your skin is as free of bacteria as possible before surgery. If you have not received this cleanser a week prior to surgery, please call your surgeon's office. Please don't use this product if you are allergic to CHG. If you have sensitivity or discover sensitivity, please follow the steps below using anti-bacterial soap instead.

Hibiclens is a popular brand and can commonly be found at your local pharmacy.

How to Use

- In the shower or tub, wash your hair and face with your usual cleansers and rinse thoroughly.
- Apply the CHG liquid to a clean washcloth and wash the surgical site first.
- Wash the entire body from the neck down.
- Do not use the CHG near your eyes or ears.
- Turn the water off, avoid rinsing the soap too soon.
- Wash your body gently for five minutes. Be careful not to scrub too hard.
- Rinse thoroughly, then take a second clean washcloth and rewash the surgical site only, rinse with water.
- Dry the surgical site first with a clean towel, followed by drying the rest of the body. Take care not to re-dry the surgical site with the same towel.
- Repeat this process daily, starting three days before surgery and the morning of surgery.
- Dress in clean clothes; do not use any lotions, powders or creams after each shower.

Surgery Countdown Checklist

8 Weeks Before Surgery

- Stop any and all nicotine products (e.g. vaping, patches, smoking, chewing etc.)

3-4 Weeks Before Surgery

- Obtain surgical clearance(s) as requested. Your primary care doctor will obtain lab work, chest X-ray, and a heart tracing (EKG)
- ! IMPORTANT:** If you are referred to or seeing a specialty doctor, such as a cardiologist, and you have an appointment within the week before surgery, please notify us immediately at the phone numbers below. Your surgery may need to be postponed.
- You may have an appointment with Dr. Kadam or his associate, Christian Cox, PA.
- Make arrangements for someone to stay with you for at least 2 weeks after surgery. You should not be left alone for more than 1-2 hours.

10-14 Days Before Surgery

- Pick up your prescription for Vitamin D2 50,000 units from your pharmacy. Take 1 pill with a meal.

7 Days Before Surgery

- Stop medicines on pages 13-15. Continue prescriptions, unless instructed to stop.
- Take Vitamin D2 50,000 units with a meal
- Begin drinking Ensure twice daily.
- Review and finalize preparations to your home.
- If you have a history of nicotine use, you may be asked to have lab drawn a week before surgery. If you have not quit using nicotine, call to reschedule your surgery.

3 Days Before Surgery

- Start Hibiclens (CHG) showers daily using the techniques described on page 27 in your Guidebook.
- Continue Ensure twice daily.

Day Before Surgery

- The Pre-Admission Screening Unit (PASU) will call with your time to arrive the next day (316-804-6169).
- Continue Ensure twice daily.
- Take stool softener (Colace®)
- Continue daily Hibiclens shower.
- Pack clothing and toiletries for your overnight hospital stay.
- Sleep in clean, fresh sheets; no pets.
- Sleep in clean, fresh pajamas.
- Remove all nail polish (toes and fingers), piercings, jewelry, etc.
- Do not eat or drink anything after midnight.
- DO NOT take the following medicine the evening/night before surgery:

The Morning of Surgery

- Take your final Hibiclens shower, no lotions, powders or makeup.
- Brush your teeth. Remember - no food or drinks after midnight.
- Bring CPAP machine if you have one.
- Bring neck/back brace if you were told to.
- Bring walker or cane, a change of clothes and your guidebook.
- Check in at NMC Health's Emergency Entrance at the designated time.
- Take the following med with a small sip of water:

Questions? Call us! 316-804-6215 or 316-804-6249

What To Pack

Please bring as little as possible when coming to the hospital. Use the guides below to decide what to bring to the hospital.

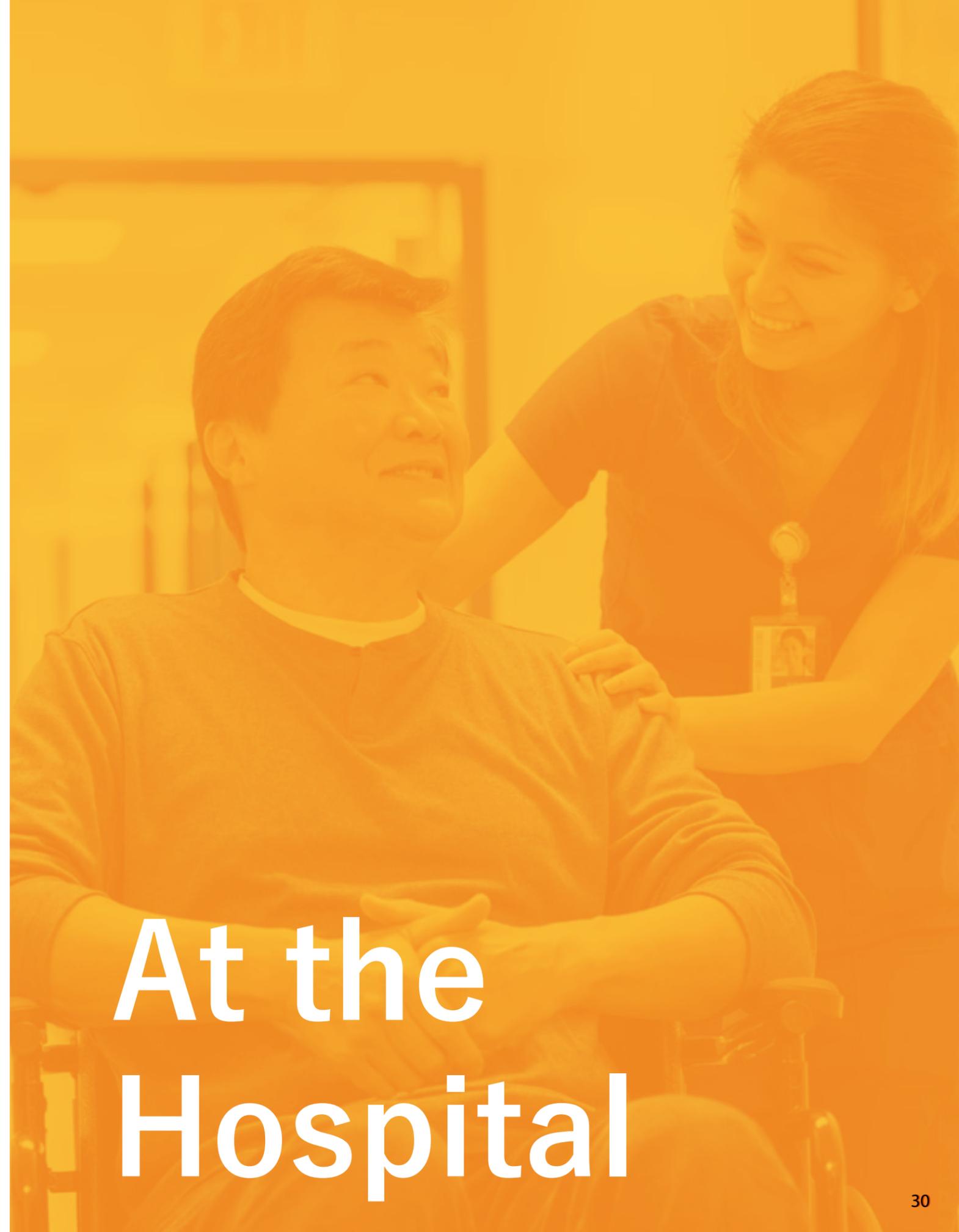
What to Pack

- Your driver's license
- Your health insurance or health plan card
- This guidebook
- Walker or cane (if told by surgeon)
- Comfortable clothes to wear home like sweats, t-shirt, etc. (If you aren't staying the night, wear these clothes to the hospital)
- Pajamas and bathrobe if staying the night at the hospital
- Sturdy, nonslip slippers or shoes
- Personal care items such as toothbrush, toothpaste, shampoo, comb or brush, deodorant, and razor (These items are available at no charge during your stay.)
- A list of all medicines you take (including prescription medicines, over-the-counter drugs, vitamins, and herbal supplements), including the correct name, dosage, time of day, and reason for the medicine
- Your CPAP machine, if you have one
- Your neck/back brace if you were told to
- Details of illnesses, surgeries, and any allergies to medicines, foods or environment
- A list of the names and phone numbers of family or friends to call if needed
- Please put your name on personal items; this can help us identify ownership of items.

What Not to Pack

- Medicines
- Cash
- Jewelry
- Credit cards
- Checkbook
- Electric shaver
- Hair dryer
- Curling iron
- Cowboy boots or any shoes that are hard to put on
- Jeans

If you have valuables with you, they should be kept in the hospital safe. Talk with your nurse if you want something to go in the safe.



At the Hospital

Day of Surgery

Morning of Surgery

- Do not eat or drink anything.
- Take only the medicines you were instructed to take with small sips of water.
- Brush teeth, but do not drink or swallow water.
- Do not use hair products or wear deodorant, makeup, nail polish or jewelry.
- Make sure to bring:
 - your CPAP machine, if you have one
 - walker or cane
 - a change of clothes
 - a list of your current medicines
 - this guidebook
 - Neck or back brace, if you were told to

Admissions

- Arrive at the time designated by the pre-admissions staff. You will be called 24-48 hours before surgery with your time to arrive. This arrival time allows the registration department and nursing staff adequate time to prepare you for surgery.
- Bring a photo ID and your insurance card.
- Check in at the Emergency Department registration desk. Your registration, insurance and personal information will be verified. You will receive information on patient rights, privacy practices and living wills.
- Pay any applicable insurance co-pay or deductible. Contact your insurance company before the day of surgery for information on your out-of-pocket requirements.

Pre-Operative Care

After checking in, you will be taken to the pre-surgery care area. Most likely, once you are ready for surgery, one or two of your family members may stay with you until your surgery. Due to the small space, only one or two visitors can be in the room at the same time. A waiting area is available for friends and family. You may want to make other plans for children.

Please check our current visitation policy at myNMCHHealth.org.



A nurse will serve as your pre-surgery care nurse. He/She will get your health history and complete a physical assessment. The nurse will get your skin ready for your surgery, and give you Nozin® Nasal Sanitizer®, which helps protect against infection. An IV line will be started in your arm, and more lab work may be taken at this time.

The nurse anesthetist will meet with you to discuss your medication needs for surgery.

During this time, you will also have the chance to talk with your surgeon, and he/she will confirm and mark your surgical area.

Operating Room

A surgical team member will come to the pre-surgery care area to take you to the operating room. They will confirm your name and birth date with your ID band, and confirm type of

surgery. At this time, you will be under the care of your orthopedic surgeon, nurse anesthetist and operating room nursing staff.

Updates will be given to family through the primary contact number you listed. After your surgery, the surgeon will give your family an update. Your family may then wait in your private room as you recover in the Post Care Unit.

Post Anesthesia Care Unit (PACU)

Following surgery, members of the operating team will take you to the PACU. In the PACU, you will be closely monitored by the nursing staff. Any pain will be watched closely and medicine will be given to help keep you comfortable. You will be moved from PACU to your private room on the surgical nursing unit. Most times, this is where your family will be waiting for you.

Following Surgery

When You Wake Up

Depending on the type of surgery, you may wake up with:

- An intravenous (IV) in your hand or arm in order for medicine to be administered.
- Oxygen tubing in your nose.
- A drain tube from your incision and a chest tube if you have had anterior chest wall surgery.
- A patient controlled analgesia (PCA). This is a computerized pump with pain medicine connected to your IV. The pump will have a button you can press, giving you the power to control your pain.
- A (Foley) urinary catheter to collect urine.
- Sequential Compression Devices (SCDs), which are plastic sleeves on your legs that pump up and down to improve blood flow and prevent blood clots.

Diet & Nutrition

When your stomach “wakes up” from anesthesia and starts to make noises, you can start clear liquids. When you pass gas you can start eating solid food.

Note: Hoarseness, difficulty swallowing or sore throat may occur if you had neck surgery. No need to worry, it should go away in 7-10 days. Avoid dry foods such as crackers and drink plenty of fluids with meals. Soft foods may be preferred at first.

Constipation (trouble pooping) is a common problem after surgery. Pain medicines, reduced activity and changes in your normal routine can all contribute to this.

How to help:

- Eat a diet rich in fiber (fresh fruits and vegetables). Order these items from our room service menu while you are a patient.
- Drink plenty of water.
- Get up and move. Walking can help “wake up” your bowels after surgery.
- Wean yourself off narcotic medicines as soon as you are able.

Your care team will use medicines such as Colace®, MiraLAX® and Milk of Magnesia® to help manage your bowel movements. You can expect to continue these medicines after leaving the hospital while you are taking narcotic pain medicines.

Pain Management

Your orthopedic care team is dedicated to keeping you as comfortable as possible during your stay. It is important to know, **having no pain following surgery is not a realistic goal**. It is very important to keep open lines of communication with your nursing staff and surgeon about your pain.

It is normal for you to feel some level of back soreness and/or stiffness after surgery, especially if you had a spinal fusion. Your nerves can get irritated from being moved around during your spinal surgery, so it is not uncommon to feel numbness and tingling after surgery. This should improve over time, but know that the first week after surgery is typically the most uncomfortable.

Measures to help alleviate pain include:

- **Pain Medicines**
- **Ice:** Ice is applied over your incision and the surrounding skin to help decrease the amount of pain and minimize swelling. Use ice for 20 minutes every hour. **Never place the ice pack directly on the skin; this can lead to frostbite.**
- **Heat compressions:** after swelling is gone.

As your stomach wakes up, you will begin oral pain medicine and slowly stop the PCA. Most patients are off the PCA 24 hours after surgery. Please keep in mind that medicines given through the PCA & IV are typically stronger than oral medicines. It is important for you to closely watch your pain when you switch.

Take your pain medicines when you need them. Stay ahead of your pain - do not wait until your pain is bad. You will most likely feel more pain when you become more active after surgery, especially during physical & occupational therapy sessions. It is vital that you do not let pain limit your work in your therapy sessions. It may be helpful to take pain medicine prior to these sessions or when you may be more active.

Pain is expected after surgery because it is your body’s way of responding to illness or injury. It is important that you understand a few things about pain. Pain has a cycle. It begins and increases until medicine stops the cycle. Do not try to wait it out. Treating your pain is an important part of your recovery. Less pain leads to a quicker recovery and fewer complications. When your pain is well controlled, you breathe deeper and move around more freely.

Your care team will use the pain scale (shown below). Do not be scared or nervous by the pain scale - it is not a test. This is the best way we have to understand what you are feeling. Be honest with your care team about your pain. Your honesty helps them put together the best pain management plan for your recovery.

Wong-Baker FACES™ Pain Rating Scale



Blood Clots

All patients who have orthopedic surgery are at increased risk of getting blood clots, also known as deep vein thrombosis (DVT). To lower your risk, it is important that the following are used:

- 1. Machines:** Before, during and after surgery you may have a machine called a sequential compression device (SCD) on your legs. This will help increase blood movement through gentle massage.
- 2. Medicines:** Medicines to prevent blood clots are either given as an injection or by mouth. The type of medicine you will take and any follow-up lab work is decided by your surgeon, based on your needs and health history.
- 3. Moving:** One of the most important things you can do to lower your risk for blood clots is safely getting up and moving. Physical therapy starts soon after surgery. A therapist will help with strengthening exercises, movement of your leg joints (range of motion) and moving around. You will be encouraged to be out of bed for all your meals and to walk at least four times per day. While lying in bed, exercises such as ankle pumps are highly encouraged.

Respiratory

After surgery it is important that you take deep breaths and cough at least every two hours. Deep breathing and coughing helps prevent respiratory issues such as pneumonia.

To help you, a respiratory therapist will instruct you on the use of a device called an incentive spirometer (IS). The IS encourages your lungs to expand by inhaling deeply through a mouth piece. You should use this at least every hour while awake. Before you leave the hospital, you will be given the chance to take the pneumonia vaccine and flu vaccine (if in season) as an additional preventive measure.

Drains, Tubes & Other Equipment

- The catheter can be removed when your surgeon says its okay.
- Your drain & chest tube can usually be removed 48 to 72 hours after surgery.
- Oxygen will be removed when you are awake and oxygen levels are stable.
- SCD pumps can be left off your legs when you are out of bed walking regularly. It is best to wear your SCDs while in bed until you are walking frequently.

Physical & Occupational Therapy

Physical and occupational therapists will work with you after surgery to rebuild strength and mobility. You will be encouraged to get out of bed as soon as possible, usually beginning the night of or morning after surgery. This will help to speed up your recovery from surgery. Your therapist(s) will:

- Focus on safe movements.
- Instruct you on how to perform tasks within your restrictions.
- Guide you through going up and down stairs, if needed.
- Determine what equipment, if any, you will need when you leave the hospital.

With staff present, you may get out of bed and up in your room without your brace on. Once you have your brace, wear it as instructed by your doctor. Your surgeon will give instructions on when you need to wear your brace.

- Back braces should be worn out of bed for comfort only, as required by your surgeon.

Our goal is for you to be able to walk at least 50 feet, get in and out of bed on your own and are able to safely go up and down stairs before leaving the hospital.

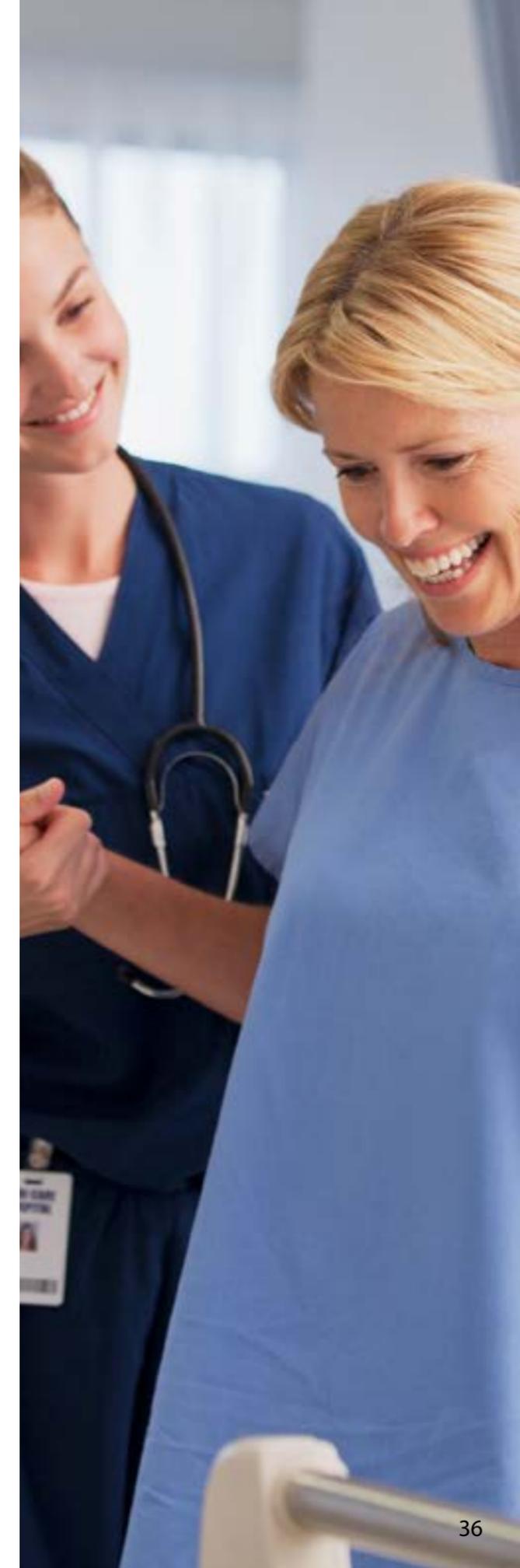
Benefits of Early Mobilization

It's important to remember that getting up and moving is both safe and feasible.

Early mobilization:

- Stimulates motivation to recover.
- Helps you breathe more freely.
- Reduces pressure that causes skin sores.
- Prevents achiness, joint and tissue stiffness.
- Improves mental state and clarity of thinking.
- Maintains heart function.
- Helps bowel movement and function.
- Increases muscle tone and blood circulation throughout the entire body.
- Prevents blood clots (deep vein thrombosis).
- Promotes your independence.
- Improves overall outcomes.
- Speeds up your recovery.

www.uclahealth.org/neurosurgery/Workfiles/Site-Neurosurgery/BenefitsofEarlyMobilization.pdf





Recovery Overview

This chart gives you a quick guide of how we will work together on your recovery after your surgery. Take note that these are the recovery milestones for most patients. Your care may vary slightly depending on your medical condition. Make sure to discuss the expected length of stay with your surgeon.

	Day of Surgery	First Day After Surgery	Second Day After Surgery through hospital stay
Liquids/Food	After surgery, you will get fluids through an IV. Once you are alert and able to swallow safely, we will start giving you ice chips and sips of water. If you are able to do this without any nausea or vomiting, you can start to have clear liquids.	As you start to take in more fluids and food by mouth, we will decrease or stop the fluid you get through your IV. We will encourage you to eat at least 25% of your meals and take in at least 16 ounces of fluid by mouth every 12 hours.	You will be encouraged to drink and eat normally.
Mobilization	Early mobilization has been shown to be vital in a successful recovery. Depending on the type of surgery, your surgeon may have staff help you sit up at the side of your bed for 5 minutes the day of your surgery. You will get medicine for pain or nausea if needed before doing this. If your surgery is completed early in the day, staff will help you to walk to the chair for a few minutes in the evening.	The nurse will help you walk a few feet to the chair for breakfast. Later in the morning or early afternoon, the nurse will assist you in walking in the hallway of the unit. This should be done again in the evening. You are encouraged to get out of bed and sit in the chair between your meals and for your meals. You may be evaluated by a physical or occupational therapist, depending on your progress.	You will be encouraged to get out of bed and in the chair for meals and walking in the hallway with help at least twice a day.
Urinating	You can expect to have a catheter in your bladder to drain your urine when you wake up from surgery.	For most patients, the bladder catheter will be removed first thing in the morning. Please notify the nurse or the care partner when you urinate. The team will be measuring the amount of urine you produce.	You will be encouraged to urinate normally.
Pain Management	You will be offered pain medicine through your IV or by mouth once you can swallow safely. You will be offered additional relaxation techniques to help with any pain you may experience such as: music, deep breathing and ice packs.	You will be offered pain medicine first by mouth and then by IV for pain if not relieved. You will be offered additional relaxation techniques to help with any pain you may experience such as: music, deep breathing and ice packs.	You will be offered pain medicine by mouth. You will be offered additional relaxation techniques to help with any pain you may experience such as: music, deep breathing and ice packs.

Discharge Planning

What is discharge planning? It is learning and preparing for your health care needs after leaving the hospital. It's important that you and your family or caregiver talk with your health care team about this. It will help you understand what your needs are and how to meet them when you leave the hospital.

This process starts before checking in to the hospital. It is based on what you feel your own needs are and what your care team thinks you need.

If your surgeon decides that you need physical therapy after leaving the hospital, you will most likely be cleared to start after your 6-week follow-up visit. If you are a spinal fusion patient, don't do physical therapy or independent exercises (other than walking) until cleared by your surgeon. This is usually at 6 weeks after surgery but if you had large fusions or a complex spine surgery, you may be asked to wait 3 months after surgery.

Your case manager will make sure that you have all the help you need when you leave the hospital.

Post-Operative Appointment

Expect to follow up with your surgeon 2 weeks after surgery.

During your first follow-up appointment with your surgeon, your dressings will be removed along with any remaining staples or sutures. You may have imaging services done before this appointment.

The date and time of your follow-up appointment will be given to you as part of your discharge instructions.



Road to Recovery

Restrictions

There will be things you should not do, called restrictions, depending on the type of your surgery. Here are some basic restrictions you will need to follow after spine surgery for about 6 weeks to 3 months.

Don't

These restrictions are for your comfort and to prevent back spasms, pain and injury.

- Don't sit or lie in one position for long periods of time. Reposition frequently from sitting to standing to walking during the day.
- No BLTs! (Bending, Lifting, Twisting)
 - Bending: avoid bending and don't squat if you had surgery in your low back.
 - Lifting: don't lift more than 20 pounds.
 - Twisting: avoid twisting - always turn your entire body slowly in the same direction.
- Avoid pushing or pulling items (shopping cart or vacuum.)
- Do not reach for items overhead.
- No driving if you're taking narcotic pain medicines or while you are required to wear a neck brace. (This does not mean you can remove your neck brace to drive!)
- Sick friends or family should not visit.

Do

It may seem like there are a lot of restrictions, but please do not become a couch potato after surgery. It is important to change positions frequently. Even a short walk can help prevent complications such as pneumonia, blood clots and constipation.

- Change position often.
- Turn at least every 2 hours while in bed.
- Back surgery - sit in a recliner or lean back on pillows until sitting straight is comfortable.
- Avoid prolonged sitting or standing.
- Increase activity gradually.
- Frequent short walks are okay - remember to rest in between activities.
- Maintain good posture to protect your spine.

Pain Management

It is normal to have some soreness or pain at the surgical site during activities and at night for a few weeks after surgery, especially if you had a spinal fusion. Please use the following advice to reduce pain and soreness:

- Apply ice packs or warm compresses for 10 to 15 minutes at a time.
- Take muscle relaxants (as ordered by your surgeon).
- Stay ahead of your pain. Do not wait until your pain is severe before taking pain medicine.
 - It may be helpful to take them when you plan to be more active or before physical therapy sessions.
- Take your pain medicines only as directed.
- Do not stop taking your pain medicines suddenly. Always decrease them slowly.

Call your surgeon if your pain gets worse or does not go away as it should.

Note: Your nerves can get irritated from being moved around during your surgery, so it is not uncommon to feel numbness and tingling after surgery. These symptoms should improve over time.

Managing Constipation

- If you are taking pain medicines, be sure to take your ordered medicines to prevent constipation. These medicines are available over-the-counter at most drug stores.
- Drink 6-8 glasses of water per day to stay well hydrated.
- Limit caffeinated drinks to 1-2 cups per day.
- Eat plenty of fresh fruits & vegetables. Brown rice, legumes/beans, high fiber cereal, oatmeal, granola, and whole grain bread are also good options.
- If you have not had a bowel movement in 3 or more days, call your surgeon's office right away.

Orthopedics Policy for Pain Medicine

- We do not order pain medicines for patients who have not had surgery with us unless they come to us with an acute, painful spinal condition like a fracture.
- We will only order pain medicine and refills for our surgical patients up to 3 months after their surgery date.
- Pain medicines before surgery should be ordered by your family medicine or pain doctor. Take these medicines as advised by the doctor who ordered these medicines.
- If you have a pain management doctor, you will be sent back to them after surgery to best manage pain after surgery.
- We ask that you see your family medicine doctor within 3 months of your surgery date.
- You are responsible for telling your family medicine or pain management doctor about our pain policy before the surgery is done.
- Pain medicines cannot be ordered by multiple doctors, according to U.S. Food & Drug Administration (FDA) guidelines.
- Please call us 7 days in advance for refills if it is required to be sent to your home address. This is to make sure the medicine will arrive through the mail on time.

Caring for Your Incision

Dressings

The type of surgery that you have will determine what kind of dressing your surgeon will use. Before leaving the hospital, your surgeon and nursing team will teach you how to care for your incision. Follow their instructions carefully.

It's important to keep the dressing on your incision clean and dry. Change the dressing if your surgeon told you to, or if it gets wet or dirty.

! Contact your doctor immediately if you find any of the following:

- Signs of infection, such as:
 - Redness and/or swelling at the incision
 - Pus, bad smelling drainage or pain at or around the incision area.
 - Incision opens/gapes.
 - Fluid from drain site, or incision.
 - Severe or increasing pain that does not get better with rest.
 - Fever over 101° F lasting for more than 24 hours.
 - Flu-like symptoms (shaking, chills, body ache, etc.)
- New or increased numbness or weakness in arms, legs, or torso.
- Difficulty emptying your bladder or controlling your bowels.
- Burning or pain on urination.
- Go to Emergency Room or call 911 If you experience:
 - Difficulty speaking or swallowing, arm weakness, facial droop.
 - New shortness of breath or chest pain.

Contact Us

Business Hours(316) 283-9977

After Hours.....(316) 283-2700

- Ask for the ER physician on call. You may be directed to your surgeon.

If you do change the dressings:

- Wash your hands well with soap and water before touching the dressings.
- Remove the dressing carefully. If needed, soak some of the dressing with sterile water or saline to help loosen it. No tap water.
- Apply a new dressing the way your doctor or nurse showed you.

Staples or Sutures

- Depending on your surgery type and how quickly your wounds heal, staples/sutures may be removed between 14-21 days after surgery depending on your physician's recommendation. Usually at your first follow-up appointment.
- Refer to your discharge summary for the time period when your wound check and staple/suture removal should take place.
- Keep the incision dry while staples/sutures are in place and 24 hours after removal.
- Do not use cream, lotions, or ointments (including antibiotic ointment or cream) on the incision while sutures or staples are in.
- Do not clean the incision with anything unless your doctor told you to do so.
- Your primary care provider or home physical therapist/nurse may remove the sutures/staples if appropriate, or you may have them removed at the Orthopedics clinic.
- Steri-strips or butterfly strips may be placed after the removal of your staples or sutures. These should fall off by themselves.

Steri-Strips

- Steri-strips are small pieces of paper stitches that cover the incision and protect it. Under the steri-strips, the incision has been closed by dissolving sutures which do not need to be removed.
- If the steri-strip edges curl up over time, you can trim the edges off; otherwise they will fall off on their own. If the steri-strips are still on after 14 days, gently remove them.
- You may cover the steri-strips with gauze and secure with medical tape. After the steri-strips have fallen off or are removed, you may leave the incision uncovered.

Skin Glue

- Skin glue appears white, dry, and crumbly. Sometimes it is brown and crumbly.
- The skin glue will gently break down and crumble off your skin. Don't mess with it.
- Cover the incision with gauze and tape for 1 week after surgery. After 1 week, you may remove the dressing and leave the incision uncovered.
- Avoid getting skin glue wet for 7 days (unless instructed otherwise by your surgeon).
- Do not scrub off the skin glue.

Showering

You may begin showering 4-5 days after surgery as instructed by occupational therapy or nursing staff. No baths.

If you have staples or sutures:

- Once you're able to shower, cover the dressing with plastic wrap or freezer bag.
- Use medical tape to tightly secure the edges to prevent water entry. Medical tape can be purchased at any local drugstore (Walgreens, Walmart, Dillons, CVS, etc.).
- Change the dressing immediately if it becomes wet.
- Your incision can get wet 24 hours after the staples/sutures are removed at your first follow-up appointment.

If you have steri-strips:

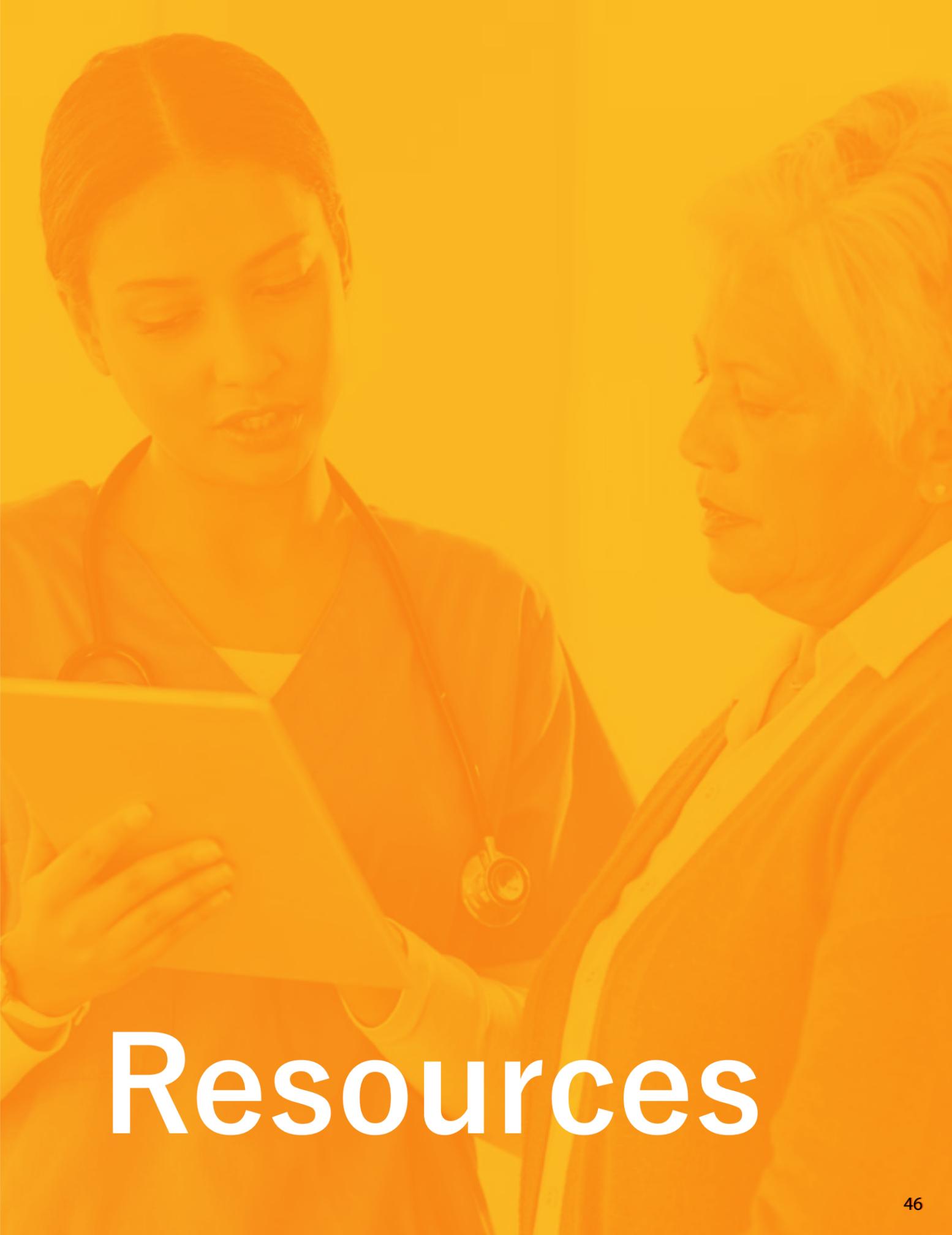
- The incision can get wet 14 days after surgery.

If you have skin glue:

- Avoid getting it wet for 7 days by covering the site with the above plastic wrap or freezer bag method.
- The incision can get wet after 7 days.

Pets

- Do not allow pets to sleep with you until your wound is completely healed and the stitches/staples are removed.
- Do not allow pets to lick you or your wounds.
- Cover sofas or chairs with a clean sheet before sitting or lying on them.
- Wash your hands immediately with soap after touching your pet.



Resources

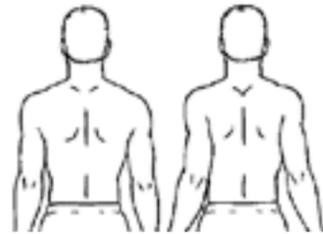
Pre-Surgery Neck Exercises*

*Do not perform these exercises unless cleared by your surgeon or physician assistant.

Shoulder Stretch

With arms at sides, pinch shoulder blades together.

10 times per set
2 sets per session
2 sessions per day



Chin Tuck

Pull chin and lengthen back of neck.

10 times per set
2 sets per session
2 sessions per day



Neck Rotation

Turn head slowly to look over one shoulder. Hold for 30 seconds. Turn to the other side. Hold for 30 seconds.

3 times per set
2 sets per session
2 sessions per day



Neck Stretch - Side

Slowly tilt head toward one shoulder. Hold for 30 seconds. Tilt towards the other side. Hold for 30 seconds.

3 times per set
2 sets per session
2 sessions per day



Neck Stretch - Back

Bend head forward. Hold for 30 seconds.

3 times per set
2 sets per session
2 sessions per day



Neck Stretch - Front

Bend head back. Hold for 30 seconds.

3 times per set
2 sets per session
2 sessions per day



Neck Extension

Using light pressure from fingertips at back of head, resist bending head backward. Hold for 15 seconds.

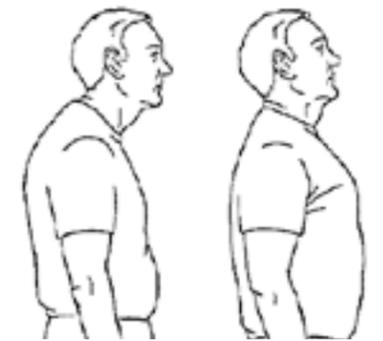
10 times per set
2 sets per session
2 sessions per day



Neck Side Flex

Tilt head toward right shoulder. Apply light pressure to side of head just above the ear and resist tilting head down further. Hold 15 seconds. Repeat on other side.

10 times per set
2 sets per session
2 sessions per day



Posture Awareness

Stand and check posture: Jut chin, pull back to comfortable position. Be sure back is not swayed - tilt pelvis forward or back. Roll from heels to balls of feet, then distribute your weight evenly. Picture a line through your spine, pulling you straight.

Do:

- Stand tall and straight
- Keep chin tucked in
- Keep head and shoulders in alignment
- Check posture regularly in mirror or window
- Pull head back against headrest in car

Don't:

- Slouch or slump while sitting
- Sit, stand or lie in one position for too long
- Believe you are too bent out of shape to change. It can be done with practice and effort!

Pre-Surgery Back Exercises

*Do not perform these exercises unless cleared by your surgeon or physician assistant.

Lower Body Rotations

Lying on your back with your knees bent, gently rock your knees side to side, staying in a comfortable range of motion.

10 times per set
1 set per session
1 session per day



Knee to Chest Stretch

While lying on your back, hold behind your thigh with one or both hands to gently pull your knee towards your chest for a gentle stretch. Hold for 20 seconds. Lower your leg down and repeat on the other side.

3 times per side per set
1 set per session
1 session per day



Glute Stretch

While lying on your back and leg crossed on top of your opposite knee (if possible), hold your knee with your opposite hand (or both hands) and pull your knee towards your opposite shoulder for a stretch felt in the buttock. Hold for 20 seconds. Lower your leg down and repeat on the other side.

3 times per side per set
1 set per session
1 session per day



Abdominal Bracing

Lie on your back with your knees bent. Tighten your abdominal muscles 'up and in' as if you are pulling your belly button in towards your spine and flattening your low back. Try to hold this contraction without holding your breath for 3 seconds. Repeat.

10 times per set
1 sets per session
1 sessions per day



Glute Set

While lying on your back (or sitting), squeeze your buttocks and hold for 3 seconds. Repeat.

10 times per set
1 set per session
1 session per day



Side-Lying Clamshell

While lying on your side with your knees bent, keep your feet together and lift your top knee up slightly. Lower, and repeat. Do not let your pelvis roll back during the lifting movement. Repeat on the other side.

10 times per set
1 set per session
1 session per day



Hamstring Stretch

While seated, rest your heel on the floor with your knee straight and gently lean forward until a stretch is felt behind your knee/thigh. Maintain a straight spine without rounding your back. Hold for 20 seconds, the relax the leg. Repeat on both legs.

3 times per side per set
1 set per session
1 session per day



Squats

While standing with feet shoulder width apart in front of a stable support for balance, bend your knees as you sit your hips back as if sitting in a chair. You can place a chair behind you if needed. Return to a standing position, and repeat.

*Knees should not pass the front of the foot or bow in or out.

*Your upper body should tip forward so the low back stays in a neutral position and does not arch.

10 times per set
2 sets per session
1 session per day



Images from hep2go.org

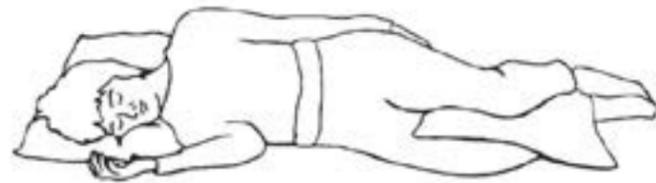
Postoperative Mobility Tips

Your physical therapist will work with you on how to move safely after your surgery. Use these tips to familiarize yourself on how to move without risking your recovery.



Lying on Your Back

When lying on your back, be sure that you have a firm mattress. Use a pillow that is “just right” (not too puffy, not too flat) to keep your neck in alignment with the rest of your spine. Putting a pillow beneath your knees can help reduce pressure on your lower back.



Lying on Your Side

When lying on your side, be sure that you have a firm mattress. Use a pillow that is “just right” (not too puffy, not too flat) to keep your neck in alignment with the rest of your spine. Putting a pillow between your knees can help keep the lower end of your spine in alignment.



Getting In and Out of Bed

Lower yourself to lie down on one side by raising legs and lowering head at the same time. Use arms to assist moving without twisting. Bend both knees to roll onto back if desired. To sit up, start from lying on your side, and use same movements in reverse. Keep trunk aligned with legs.



Log Roll

Lying on back, bend left knee and place left arm across chest. Roll all in one movement to the right. Reverse to roll to the left. Always move as one unit.



Getting In and Out of the Car

Lower yourself onto the seat, scoot back, then bring in one leg at a time. Reverse sequence to get out. Avoid twisting, and take breaks so you don't get stiff. Your physical therapy team will work with you on getting in and out of a car safely and while maintaining your restrictions. We have an actual car located in our therapy gym for you to use for practice!

Frequently Asked Questions

When will I be able to get out of bed and start walking after surgery?

Getting out of bed and walking will be one of your main goals after surgery. These tasks may begin as soon as the day after your surgery is complete. You should plan on getting out of bed and walking every day.

If I feel pain when I try to get out of bed or walk (especially the first time), is that a bad thing? Does it mean I have done something wrong?

Pain after surgery is expected. It is normal to have pain when trying to get out of bed and walk. If you have pain when trying to get out of bed and walk, it DOES NOT mean anything is wrong. One of the main goals of your healthcare team is to make sure you can control and handle your pain before you try getting out of bed and walking.

Who will help me to get out of bed and start walking in the hospital?

Many of the members of your healthcare team are responsible for, and participate in, helping you begin to get out of bed and walking. A combination of nurses, nursing assistants, and in some cases, physical and/or occupational therapists will help you with this. Many patients, after initial help, are able to get themselves out of bed and walking before leaving the hospital.

Will I need an assistive device to walk when I get home?

Most patients begin walking with an assistive device (like a front-wheeled walker) immediately after surgery. You could move to a cane or no device before you leave the hospital, if appropriate (unless you were using an assistive device prior to surgery).

How soon will I not require any help to get out of bed and take a walk?

That depends on many factors. Some patients are able to get out of bed and walk without help within

a few hours after their surgery. Some patients need help to get out of bed and walk throughout their hospital stay.

If you need help getting out of bed and walking the entire time you're in the hospital, it may be recommended that you (when you leave the hospital) go to an extended-care facility before going home. The goal after surgery is to have you walk several times a day with help, as needed. If you are walking by yourself, you may not require therapy services to evaluate you.

Is there a situation where it would be recommended that I NOT get out of bed and take a walk?

On very rare occasions, your surgeon may want to keep you in bed for a short time after surgery (24-48 hours) for medical reasons. Outside of that situation, you will be encouraged to get out of bed and walk every day you are in the hospital.

What is the recovery time?

Everyone heals from surgery at a different pace. It usually takes about three months to gradually return to normal function without using any devices; however, it could take longer.

How long do I need a dressing?

Your dressing should stay on until your first follow-up appointment with Dr. Kadam, unless it comes off on its own before then. When it comes off, you should use a dressing until your incision is closed and there is no fluid oozing from your wound. You may continue to wear a dressing to protect the incision from the irritation of clothing.

How long should I use elastic stockings (TEDS)?

These should be used for the first few weeks in order to help reduce swelling and improve circulation. You may wear them longer if you find that your ankles swell without them. You may take them off at night. TEDS can be hand washed or machine washed, but do not place

them in the dryer as they may likely shrink.

Should I use ice or heat?

Ice should be used for the first several days, particularly if you have a lot of swelling or discomfort. Ice should also be used after activity (such as walking). Once the initial swelling has gone down, you may use ice and/or heat. The staff will help you with this while you are in the hospital.

When can I shower (get incision wet)?

You may start showering 4-5 days after surgery, with the incision covered. Initially, try to keep the incision dry with a clear plastic dressing or plastic wrap. If it gets wet, pat it dry. It is usually advised that you wait to shower with the incision uncovered until the wound is closed and there has been no drainage for seven days. If no drainage is present at the incision, your surgeon may agree that you can shower earlier. Stay out of tubs and pools until you have clearance to do so from your surgeon's office.

How long will I be on pain medicine?

You may need some form of pain medicine for about two to three months. At first, you will take a strong medicine, such as a narcotic. Most people are able to stop narcotics within one month after surgery. You can then change to an over-the-counter pain medicine such as Tylenol.

What activities can I do after surgery?

You may return to most activities when you feel up to it. You should avoid high impact activities such as running, downhill skiing, and vigorous racket sports such as tennis or squash. Please discuss this with your physician at your follow-up visit.

What exercises should I do?

Walking is the preferred exercise until you see your surgeon at follow-up. You may be instructed by your physical therapist on appropriate exercises and given a list to follow. Be sure to talk with your surgeon and therapists about when you can begin new activities.

Can I have sex?

For the most part, you can gradually resume sexual activity a few weeks to months after surgery, when you are comfortable.

When can I drive?

You should not drive until you can manage your pain without narcotics.

When can I return to work?

This depends on the type of work you do. You may return to work after about one month if your work involves mostly sitting. If your work is more rigorous, you may require up to three months before you can return to full work. In some cases, more time may be needed, especially if your medicines limits your ability to work safely.

When can I travel?

You may travel as soon as you feel comfortable, but avoid long-distance travel for four to six weeks or until after seeing your surgeon. We advise you to get up to stretch or walk at least once an hour when taking long trips. This is important to help prevent blood clots.

Will my spinal implants set off the machines at airport security?

Security metal detectors at airports and public buildings may cause your implants to trigger an alert. We recommend you tell security that you have spinal implants. In some situations, security guards may also wave a wand up and down your back to locate your fusion implant. They may also pat you down on the area that alerts the wand.

What should I do about constipation after surgery?

It is very common to have constipation after surgery, especially when taking pain medicine. A simple over-the-counter stool softener (such as Colace®) taken with a laxative (such as Senokot®) is the best way to prevent this problem. Increasing fruits and vegetables in

your diet will also help. In some instances, you may require additional bowel medicine (i.e. MiraLAX® or Milk of Magnesia®) and a suppository or enema.

Can I drink alcohol?

It can be very dangerous to take pain medicine with alcohol. Alcohol use is not advised until you have stopped your pain medicine and are walking steadily.

I feel depressed. Is this normal?

It is common to have feelings of depression or trouble sleeping after your surgery. This may be due to a variety of factors such as difficulty getting around, discomfort or increased dependency on others. These feelings will typically fade as you begin to return to your regular activities. If they continue, consult your family medicine doctor.

When do I need to follow up with my surgeon?

Your first follow-up appointment will be scheduled by your physician assistant before you leave the hospital.

Follow-up appointments are usually made at two weeks, six weeks, six months and yearly.





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