



WASHINGTON UNIVERSITY ORTHOPEDICS | ST. LOUIS CHILDREN'S HOSPITAL

# | Spinal Fusion Surgery Journey Guide

Knowing what to expect for spinal fusion surgery is key for recovery. Our pediatric spine specialists are committed to providing excellent care to help you throughout your journey.

## **YOUR JOURNEY TO RECOVERY STARTS NOW.**



This is your journey guide for a successful surgery and recovery. You will have an excellent orthopedic care team to lead you along the way.

- Use this guide to learn more about what will happen before, during and after surgery.
- Complete the guide checklists. This will help you recover as fast as you can.
- Bring this guide along with you to all appointments and the day of surgery.
- Review your surgery timeline on the inside cover.





## TABLE OF CONTENTS

Introduction to spinal fusion surgery . . . . .	2
Getting to know your care team . . . . .	3
Getting ready for surgery: preoperative visit . . . . .	4
Your medications . . . . .	5
Preparing your skin for surgery . . . . .	6
Setup your home checklist . . . . .	7
One week before surgery . . . . .	8
Day before surgery . . . . .	9
What to bring the day of surgery . . . . .	10
Day of surgery . . . . .	11
Your hospital stay . . . . .	12
Your journey home . . . . .	15



## INTRODUCTION TO SPINAL FUSION SURGERY

*Spinal fusion surgery is an inpatient procedure, which means you will be in the hospital 3 days after surgery.*

### What is spinal fusion surgery?

This is a surgical procedure that is completed to fuse the vertebrae of the spine by using bone graft, screws and rods. These fused segments will be motionless after surgery.

### What is the goal of spinal fusion surgery?

The goal of surgery is to prevent further progression of scoliosis and to correct the spine as much as possible in a safe manner.

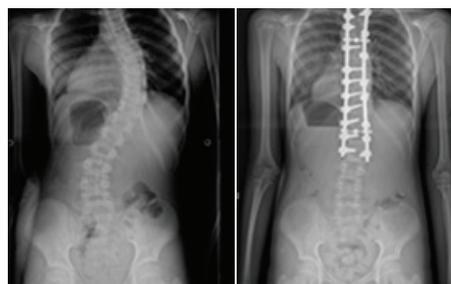
### How does your surgeon make a “surgical plan”?

Your surgeon reviews the patient’s age, diagnosis, history, labs, X-rays, MRI or CT (if needed), and physical exam to determine the exact surgical plan for each patient.

### You, your family, and your surgeon have made the decision to move forward with the spinal fusion surgery. What’s next?

- Date of surgery scheduled
- Date of preoperative appointments scheduled (your surgeon, anesthesia, and other provider appointments made if needed.)

Please bring a list of your medications to your preoperative appointments.



*Pre-and postoperative X-Rays from a spinal fusion patient.*

## GETTING TO KNOW YOUR CARE TEAM

Your care team is here to provide world-class health care in a compassionate, respectful and responsive way. We are committed to help you during this journey.

You will be mailed a list of appointments with times and locations prior to your preoperative day.

### Orthopedic Surgeon

Your surgeon and surgical care team will guide your care and perform your joint replacement surgery.

#### My orthopedic surgical specialists include:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Nurse Practitioner (NP)

Your advanced practice registered nurse will work with your surgeon to manage your care. Your nurse practitioner will see you on the floor after your surgery.

### Nurse Educator/Coordinator

## CONTACT INFORMATION

For easy, secure online communication with providers and the team, please sign up for MyChart, your patient portal. Please ask staff for instructions and/or an invite.

ST. LOUIS CHILDREN'S HOSPITAL	PHONE	HOURS
Orthopedics Appointment Desk	(314) 514-3500	8am-4:30pm, Monday - Friday
Main Number	(314) 859-2000	
Same Day Surgery (6th Floor)	(314) 454-6174	
After Hours Number	(866) 582-8055	
Outpatient Pharmacy (1st Floor)	(314) 454-4123	9am-6pm, Monday - Friday



## GETTING READY FOR SURGERY: PREOPERATIVE VISIT

### At your preoperative visit, you will:

- Have blood tests
- Have X-rays taken
- Meet with anesthesia and the Center for Preoperative Assessment and Planning (CPAP)
- Learn how to get ready for surgery
- Learn what to expect while in the hospital
- Be given written instructions to take home
- Meet with your care team who will explain the operation to you

### I have other implants in my body, what should I do?

- Notify your surgeon and the anesthesiologist
- Patients with pacemakers will need to check with their cardiologists to see if the pacemaker settings need to be reset 1-2 days prior to surgery. The electrical currents in the operating room could alter pacemaker rhythm if the settings are not adjusted.

## YOUR MEDICATIONS

Please list your prescriptions, over-the-counter medications, vitamins and herbal supplements you take on this planning sheet. This will help you prepare for your surgical evaluation at our Center for Preoperative Assessment and Planning.

MEDICATION	DOSE (STRENGTH) MG / MCG / UNITS / ML	HOW MANY TIMES A DAY	WHY DO YOU TAKE THIS MEDICATION	PRESCRIBING PHYSICIAN

## WHEN TO STOP YOUR MEDICATIONS

- Stop **ALL** non-steroidal anti-inflammatory medications/ arthritis medicines (such as Advil®, Aleve®, Ibuprofen®, Motrin®, Clinoril®, Indocin®, Daypro®, Naprosyn®, Celebrex®, Vioxx®, Ketorolac®, etc.) **2 weeks** before surgery. Tylenol® products are suggested for pain.
- Anesthesia staff will let you know during your preoperative visit which of your current medications should be stopped prior to surgery.
  - Some antidepressants will need to be stopped a few days to 1 week prior to surgery. Please do not stop medications without consulting your doctor.
  - Some medications such as Insulin and Prednisone have specific instructions that may need to be adjusted prior to surgery.
  - ASPIRIN products and BLOOD THINNERS (Coumadin®, Persantine®) need to be stopped 2 weeks prior to surgery. Please do not stop these medications without discussing with your doctor.
- **Stop smoking.** Stop smoking and all use of nicotine products. Nicotine products include cigarettes, patches, nicotine gum, tobacco, e-cigarettes and vaping products. You must stop smoking. Your body will recover faster and prevent infection. For tips on how to change habits, reduce stress, and prevent relapses, visit [smokefree.gov](http://smokefree.gov) or call toll-free 1-800-QUIT-NOW (1-800-784-8669).

## PREPARING YOUR SKIN FOR SURGERY

The purpose of preparing your skin before surgery is to ensure that your skin is thoroughly cleansed to reduce the amount of bacteria that is normally found on skin. This helps to lower your risk of developing a surgical site infection.

### DECOLONIZATION THERAPY

Getting rid of Methicillin-resistant staphylococcus aureus (MRSA) is called “decolonization”. Decolonization helps decrease the amount of germs on your body and helps avoid infections after surgery.

**Germs can live in your nose and on your skin. There are two parts that decolonization therapy focuses on:**

- Mupirocin/nasal ointment:** Nasal ointment is only prescribed for patients who are MRSA/MSSA positive. Rub nasal ointment into each of your nostrils (the inside of your nose) twice a day for 5 days. The nasal ointment can be picked up from your pharmacy.
- Scrub Care soap:** take a shower with a special soap called Scrub Care i.e. hibiclens/chlorhexidine) once a day for 3 days. Wash your body from chin to toe, making sure to clean your back well. The soap will be given to you at your pre-testing visit.



**Start date for decolonization therapy:**

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TASK	DAY 5	DAY 4	DAY 3	DAY 2	DAY 1	DAY OF SURGERY
<b>Mupirocin/nasal ointment (if prescribed)</b>	<input type="checkbox"/> AM	<b>DO NOT</b> use nasal ointment the day of surgery.				
	<input type="checkbox"/> PM					
<b>Shower with Scrub Care</b>	<input type="checkbox"/>	<input type="checkbox"/> Take your last shower using Scrub Care before surgery. <b>DO NOT</b> apply lotion, ointments, or oils on your skin after showering.				

## SET UP YOUR HOME CHECKLIST

You cannot sleep on a waterbed, couch, or on a mattress on the floor.

Have a chair with armrests and a firm seat available that is appropriate for your height.

Stock up on liquids (water, Gatorade, juice, etc.) and light snacks you enjoy.

Sleep on clean sheets and in clean pajamas the night prior to surgery.





## ONE WEEK BEFORE SURGERY

### Do you have an infection?

Call your doctor's office if you feel sick or think you have an infection of any kind. Signs of infection are:

- Chills and sweats.
- A change in cough or new cough.
- Sore throat or new mouth sore.
- Redness, soreness or swelling in any area including teeth.
- New onset of pain.
- Any changes in skin, urine or mental status.

### Do you have any open wounds?

Call your doctor's office if you have any open wounds, sores, rashes or acne.

### Complete the "Set up your home checklist" on page 7.

### Follow any special instructions from your preoperative visit.

### Take bowel medications if indicated by surgery team.

## DAY BEFORE SURGERY

To be at your best health for surgery, please take some time to review the following.

- Plan for travel if you live far away.** You may want to stay at a local hotel because you will be required to be here early (approximately 6am). There are discounts for parents and patients of St. Louis Children's Hospital and the current list is found at: [stlouischildrens.org/patients-families/visiting/lodging](http://stlouischildrens.org/patients-families/visiting/lodging)
- Be notified of the time of surgery.** The Same-Day Surgery nurses contact you the day prior to surgery to notify you of the exact time to be here. Most patients are told to plan for between 5:45am and 6am arrival times.
- Please follow any special instructions you received from your care team or during your Center for Preoperative Assessment and Planning visit.**  
If you are not sure if you were given any special instructions, please call us. We want to make sure you have everything you need to prepare for surgery.
- Eat a filling dinner.**  
You may not eat or drink anything after midnight, including chewing gum, lozenges or water.
- Braid hair if it is long enough.**
- Remove all nail polish from your fingernails.**
- Remove all piercings (if applicable).**
- If directed by your doctor, continue using antibacterial soap or Scrub Care soap when you shower.**
- Don't shave.**
- Continue to wear freshly-washed clothes and sleep in clean sheets.** This will help prevent infection.
- If you did not already, please complete the "Set up your home" checklist on page 7.**  
For a successful recovery, your home will need to be in order and ready for you to return.
- Review the "What to bring" checklist on page 10.**
- Your surgeon will see you at the preoperative visit.**  
If there are any questions or concerns prior to surgery, please call.

**Your care team is here to help. Please call your doctor's office if you have any questions.**

## WHAT TO BRING THE DAY OF SURGERY

This journey guide.

List of your health history and current medicines.

Your insurance card and photo ID.

A prescription card (if you have one).

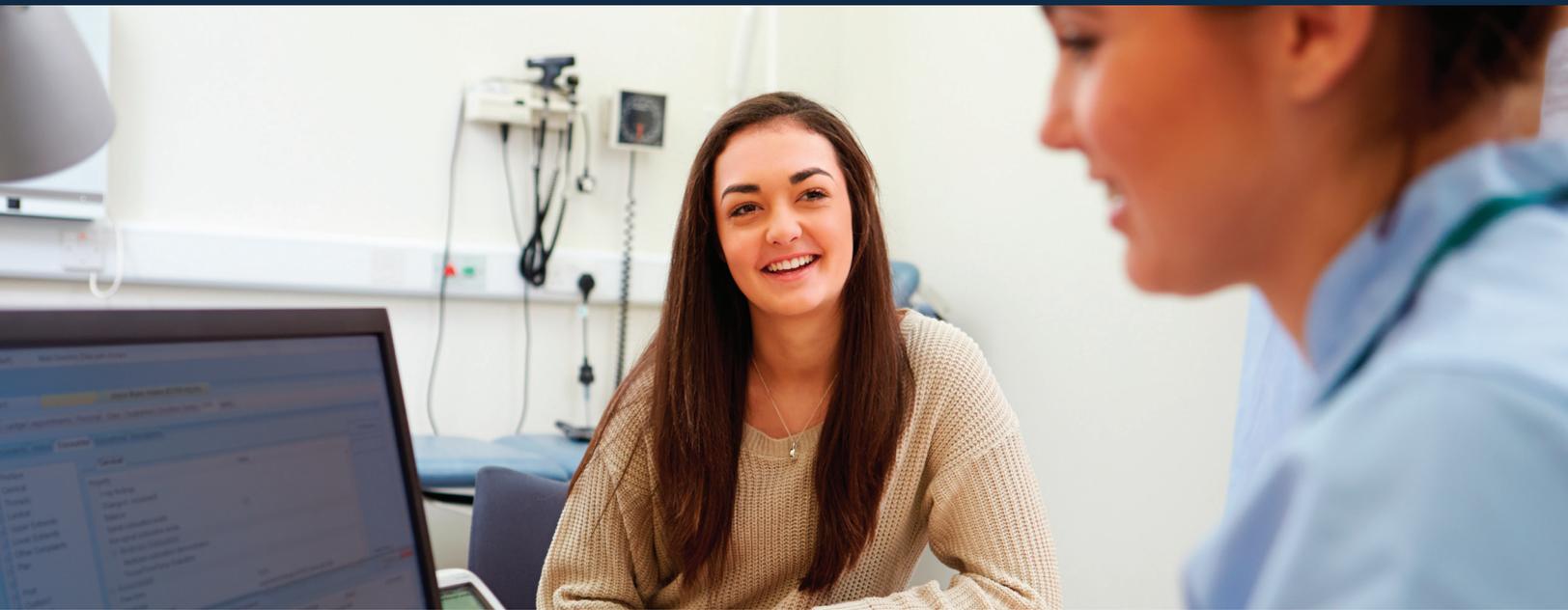
A credit card to pay for discharge medicines and co-pays.

Loose-fitting clothes for discharge, such as t-shirts and drawstring or elastic-band pants.

Comfortable non-skid shoes and socks (No flip-flops, sandals or Crocs).

Personal toiletry items (toothbrush, toothpaste, hairbrush).

If you sleep with a breathing machine for obstructive sleep apnea, you must bring it with you.



## DAY OF SURGERY

### MORNING OF SURGERY

#### Before You Arrive at the Hospital

- Take a shower using antibacterial soap or Scrub Care soap when you shower.
- Take medications as directed by CPAP with a small sip of water.

#### At the Hospital

The 6th Floor Same-Day Surgery Unit is where you and your family will begin your journey.

- The day of surgery you will meet with the anesthesiologist, nurses, and Child Life specialist.
- Your weight, height and vital signs will be obtained.
- You will change to a hospital gown, pants and socks.
- Girls will be asked to give a urine sample to screen for pregnancy.
- You may be given medication prior to surgery by the nurse to decrease anxiety.
- You will have an IV catheter placed in a way that is as painless as possible.
- Your parents or the nurse will wipe your body with antibacterial wipes prior to going to the operating room.

### OPERATING ROOM

- First you will go to sleep. You will not wake during surgery. You will wake up after surgery.
- We will place electrodes on your body to monitor spinal cord function. We will place additional IV lines and a urinary catheter after you are asleep.
- You will have pain medication that will keep you comfortable at all times during the surgery.

### DURING YOUR SURGERY

- Parents will be in the Same-Day Surgery waiting room in either a cubicle or a room. Parents are called every couple of hours during the surgical procedure to notify them of where their child is in the process of the surgery. Parents will be contacted via EASE app (please refer to the handout), cell phone, or the landline in the prep/recovery room.

### RIGHT AFTER SURGERY

- After surgery is completed, we will wake you up and ask you to move your legs and feet. You will then be wheeled in a bed to the Post Anesthesia Care Unit (PACU) or recovery room. When you are awake, we will be able to ask your parent(s) or caregiver to come to the PACU with you.
- Parent(s) or caregivers can stay at the bedside. We strongly recommend parents be an active partner in their child's postoperative care.

## YOUR HOSPITAL STAY

Have your friends or family at your side to learn how to help you when you get home.

### What to Expect

- Patients are typically transferred to the 10th floor after the PACU which is home to the orthopedic unit.
- There are both single and double rooms. You may have a roommate.
- The 10<sup>th</sup> floor has a parent lounge and small kitchen with a refrigerator and microwave.
- Parent involvement in care is KEY to postoperative success.

### Pain Management

We will work with you to help manage your pain. We will ask you to rate the pain you feel after surgery on a scale of 0 to 10 (see chart below). It is our goal to get your pain to a manageable level. The expectation is a 5-6 out of 10.

#### PAIN SCALE

	<b>0</b> No Pain	<i>Does not interfere with ADLs*</i>
	<b>1</b>	
	<b>2</b> Mild Pain	<i>Mildly interferes with ADLs*</i>
	<b>3</b>	
	<b>4</b> Moderate Pain	<i>Somewhat interferes with ADLs*</i>
	<b>5</b>	
	<b>6</b> Moderate Pain	<i>Partially interferes with ADLs*</i>
	<b>7</b>	
	<b>8</b> Severe Pain	<i>Greatly interferes with ADLs*</i>
	<b>9</b>	
	<b>10</b> Worst Pain Possible	<i>Completely interferes with ADLs*</i>

\* Activities of Daily Living (ADL) such as: sleeping, eating, mood, walking, enjoyment of life relationships

Your care team will assess how to best help you feel comfortable and tailor your medicines to meet your needs to give you a safe, rapid recovery. It is important to let us know when you first start feeling uncomfortable. Telling us right away will help us keep the uncomfortable feeling from getting worse. Please contact us with the call light any time you need help.

- Starting the morning of surgery, your pain will be managed by the pain team. This team includes doctors and nurse practitioners from anesthesia.
- Patient controlled analgesia (PCA) will be set up by the pain team. This will provide pain control immediately after surgery through an IV. This is discontinued as soon as you are able to swallow pills and transition to the home pain medicine regimen, typically the day after surgery. This will be a combination of over-the-counter medications (i.e. Tylenol), narcotics and muscle relaxers, if there is a need for this medication. The pain team works to individualize each patient's pain regimen.
- You will be discharged with the same oral medications you are taking in the hospital. You will be told how to use these medications when you go home, how to wean off the medications as time progresses from surgery, as well as how to properly dispose of leftover medications.
- NO Ibuprofen or non-steroidal anti-inflammatory drugs (NSAIDS) for 6 months after surgery.

### Incision Site

Your nurse will provide you with specific instructions regarding the care of your incision before you are discharged home.



### Healing by Movement

- Patients will be turned approximately every 2 hours using the log roll method until you can safely reposition yourself. The nurses and physical therapists will go over with the patient and family how to turn the patient properly.
- The physical therapist will be available to get you out of bed for the first time, with the assistance of the family. The goal is to be out of bed 3 times a day to chair and 3 times a day to walk.
- The parents will work together with the nurse and therapist to encourage and assist you to move.
- The goal (if ambulatory prior to surgery) is to be up sitting, walking and using the stairs prior to leaving the hospital.

### Nutritional Needs

- On the day of surgery, you will receive Intravenous Fluids (IV fluids) and only first allowed ice chips/clear liquids.
- On day 1 after surgery, you will be started on clear liquids, and your diet will advance as tolerated. This can be a slow process after spine surgery.
- It is important to encourage frequent fluid intake and small frequent meals. You may have to start with crackers and slowly progress as tolerated.
- Nausea can occur and we can give medications to alleviate symptoms.

### Preventing Pneumonia

- It is important for you to use the incentive spirometer or blow bubbles 10 times an hour in order to prevent pneumonia.

- You will get breathing treatments 4 times per day to help prevent pneumonia.

### Planning Your Discharge

You will be ready to go home when:

- Pain is at a manageable level by oral medications. Remember pain is expected.
- You are tolerating liquids and a light diet (i.e. crackers).
- You are cleared from physical therapy.
- If you have NOT had a bowel movement, you can still be discharged but will be given instructions on management at home.

### At Discharge

- You will review your discharge instructions with your nurse.
- Your nurse will time your pain medication to help make you more comfortable when leaving the hospital.
- You'll pick up your discharge prescriptions (pain medication and stool softeners) in the pharmacy at St. Louis Children's Hospital. We also offer bedside prescription delivery. If you're interested in this service, please ask your nurse for more details.
- You'll leave the hospital with filled prescriptions and a follow-up appointment time.
- The ride in the car can often be bumpy. Bring your pink bucket home just in case you get sick to your stomach.

**CALL YOUR DOCTOR'S OFFICE IMMEDIATELY IF:**

- Temperature above 101° F or 38.5°C
- Vomiting
- Significant weight loss 2 weeks after surgery.
- Increasing pain that is not well controlled by current pain medication
- The incision becomes red or warm
- Opening up of an incision or wound that has been closed with stitches or staples
- There is new or increased drainage from the incision
- There is a change in your bowel or bladder pattern
- You have numbness, tingling or weakness in your arms or legs
- If you are overly worried, anxious or very concerned about any issue
- Patients MUST call prior to any dental procedures or surgical procedures for 2 years after surgery. We will give antibiotics prior to procedure to prevent any risk of infection.

**CONTACT YOUR DOCTOR:****Business Hours:**

314-514-3500

**After-hours Exchange:**

314-388-5550 or toll-free 866-582-8055

**CALL 911 IMMEDIATELY IF:**

- Worsening of any medical condition
- Chest pain/pressure or sharp pain with deep breath
- New or increased swelling in your calf or back of your thigh (possible blood clot)
- Shortness of breath
- Rapid heart rate greater than 150 beats/minute
- Blood that appears when vomiting, coughing or with a bowel movement
- A sudden severe headache
- Fainting spells
- Loss of sensations/movement in an extremity or loss of bowel or bladder control
- Shaking chills or high fever that is unresponsive to Acetaminophen/Tylenol
- Increasing pain that is not responsive to pain medication and elevation of an extremity
- Pale or blue discoloration of an extremity that does not respond to elevation and release of bandages
- Bleeding through your bandages that does not stop
- Any condition that you feel uncomfortable managing with a phone call.

**Do not drive yourself to the emergency room.**



## YOUR JOURNEY HOME

### Home-Based Therapy and Physical Activity

- Complete your physical therapy exercises 3 times a day. For exercise instructions, please refer to your spinal precautions handout from therapy services.
- You are encouraged to move around.
- Daily 60-minute walks which can be broken down into six, 10-minute intervals.

### Caring for Your Surgical Incision

- NO showers for \_\_\_\_\_ weeks after surgery. Sponge baths are suggested until then.
- You may take a bath \_\_\_\_\_ weeks after surgery, only if your incision has completely healed, and no drainage is present.
- NO swimming in chlorinated pools for 3 weeks after surgery. There must not be any wound drainage present.
- NO swimming in natural body of water (rivers or lakes) for 6 weeks. There must not be any wound drainage present.

- No creams, lotions or ointments to incision site.
- Keep incision site out of sun by covering for 2 weeks after surgery and limit sun exposure during first year. Use sun block of SPF 50.

### Postoperative Care Plan

- Refer to the calendar provided by the pain service that references weaning off medications.
- Continue stool softeners if you are on narcotics to prevent constipation.
- NO Ibuprofen or NSAIDS for \_\_\_\_\_ months after surgery.



**Preventing Constipation (Trouble with Bowel Movements)**

Pain medication and a decrease in mobility can cause digestion difficulty and slow down normal bowel movements. Constipation is common, and your physician will prescribe a stool softener for you.

- Eat a high-fiber and high-protein diet.
- Small frequent meals with plenty of hydration is best.
- Drink a minimum of 6-8 glasses of water daily.

**Your Follow-up Appointment**

- 6 weeks
- 6 months
- 1 year
- 2 years
- 3 years
- 5 years

**Returning to School**

- You can return to school as a full time student in 2-4 weeks following surgery. You may return sooner if you wish.
- You will be given a back-to-school note with specific instructions on your limitations.

- Do not carry more than 10 pounds on your back for 3 months after surgery.
- Do not wear a backpack or carry a second set of books.
- You should be allowed 5 minutes in between classes.
- No physical education (PE) classes for at least 6 months.

**Additional Restrictions**

- No Ibuprofen for 6 months after surgery.
- No spine twisting/torsion.
- No driving for 6 weeks after surgery. You may begin driving once you're off all narcotics and are physically able to slam on breaks.
- Do not carry more than 10 pounds on your back for 3 months after surgery.
- No piercings or tattoos for 6 weeks after surgery.





For more information, visit [ortho.wustl.edu](http://ortho.wustl.edu)

