Welcome to the Division of Spinal Surgery at Nicklaus Children’s Hospital

The Division of Spinal Surgery at Nicklaus Children’s is one of the nation’s leading providers of treatment for children with spinal conditions. The division has been offering treatment for more than 35 years and has been instrumental in the development of corrective surgical procedures for scoliosis now in use throughout the nation.

In this booklet, you will learn about:

- How to prepare for surgery
- The team of medical professionals who will participate in your care
- The day of admission, day of surgery and your recovery period
- The important role families play as part of the healthcare team

A Team Approach

The spine program offers a team approach to care that has been established as a model of practice within the spinal surgical field. The team includes the spine surgical department’s highly experienced board-certified orthopedic surgeons, dedicated spine-trained anesthesiologists, operating room nurses and surgical techs. A PhD neurophysiologist will also be present to monitor the spinal cord and nerve function throughout surgery.
Things For My Parents to Know: Preparing For the Surgery

Pre-Surgical Conference  
Date: ___________________________  
Time: __________________

Admission  
Date: ___________________________  
Time: __________________

Surgery  
Date: ___________________________  
Time: __________________

Vitamins

We would like for him or her to begin taking iron and vitamin supplements to maximize their body’s ability to build blood stores and heal properly. All of the supplements can be purchased without a prescription at your local pharmacy. Him or her can begin taking the following vitamins on ___________________ and take them every day until the day of your surgery:

- Iron (ferrous sulfate 325 mg): take 1 capsule twice daily with meals
- Folic acid (400 mcg): take 1 tablet daily
- Vitamin D3 (1,000 units): take 1 capsule daily

Please note, iron can cause constipation. Please give him or her a stool softener, such as Miralax or Colace to help avoid constipation at the time of surgery.

Blood Donation

The surgeon will use multiple advances to reduce blood loss during surgery. Despite the use of this technology, some patients require blood transfusions during hospitalization. If you or your child would like to donate blood prior to surgery, please refer to the One Blood website at www.oneblood.org or call 954-777-2645 for locations, hours of operation and to schedule an appointment online. As a reminder, please take the prescription for blood donation with you to the donor center.

1st Donation: ___________________________  
2nd Donation: ___________________________

Designated donors: ___________________________

Medications

To decrease the risk of excessive bleeding during surgery, please make sure that your child avoids taking aspirin-containing medications or non-steroidal anti-inflammatory medications (Advil, Ibuprofen, Motrin, Aleve) two weeks prior to surgery. Please tell your child not to take these medications and to not resume taking them after surgery until instructed by the surgeon.
Day of Admission

The first place you will go the day you are admitted is to Patient Access, located on the first floor. This is where you will check into the hospital.

Once you have checked in, you will be sent to the laboratory for blood and urine tests. This does involve a blood draw with a needle, but it only hurts a little and is over quickly. The information we get tells us how your body is working on the inside. You will also be given a small container and asked to give a urine sample. This tells us how your kidneys are working.

Next, you will go to the Radiology Department and Orthopedic Spine office, both located on the first floor for pre-op x-rays.

You will then go up to the second floor where you will be given your room assignment. You will be assigned to a room (most likely on 2 East). You will be introduced to your nurse and will have the opportunity to ask him/her any questions you may have at that time. You will also be introduced to a crucial member of our team, your Child Life Specialist. She will spend time with you and your family reviewing the pre-surgical education received and answer questions. She will work with you to develop an individualized plan of care for using coping skills and recreational activities, including such techniques as guided imagery and progressive muscle relaxation, in order to decrease anxiety and provide distraction before and after surgery. You may change into a hospital gown or stay in your clothing, whichever you prefer. Your family can stay with you until you fall asleep for the night. Your room includes a “sleeper chair” so that a member of your family can spend the night with you. You may ask your nurse for extra pillows and blankets. Your nurse will provide you with antibacterial soap. You will be asked to take a shower using this soap the night before and morning of your surgery.

*Remember: no food or drink after midnight!*
Your Hospital Room

Since this is your “home away from home” for the next few days, you can bring items with you to make it feel “like home.” In addition to essentials, you may want to bring some sources of entertainment, as well as special items that make you feel comfortable. Here is a list to get you started:

- Pillow
- Favorite blanket or comforter
- Personal items: 
  * Toothbrush, toothpaste, lotion, deodorant, hair ties, hair brush or comb, sanitary pads, etc. (Yes, the hospital provides these...but it is nice to have your own)
- Stuffed animals, toys
- Books
- Pictures of your friends, family and pets
- Laptops/tablets/cell phones and battery charger
- Lip balm
- Slippers with a non-slip bottom
- Comfortable, warm, loose fitting clothing

*If your hair is shoulder length or longer, please come to the hospital with it clean, dry and without hair products. Prior to surgery, we will need the hair parted down the middle with two braids, ponytails, etc.*

Informed Consent

The night before surgery you or your parent/guardian will need to complete the informed consent for procedure form. This form verifies that you understand the surgery and that you give the surgeon permission. Your procedure is:

- ☐ Posterior spinal fusion with instrumentation, thoracoplasty, autograft, allograft
- ☐ Posterior spinal fusion with instrumentation, transforaminal lumbar interbody fusion, autograft, allograft
- ☐ Posterior spinal fusion with growing rod instrumentation, autograft, allograft
- ☐ Removal of posterior spinal instrumentation and re-instrumentation
- ☐ Other: ____________________________________________________________

*Please make notes:*

A. In my own words, this is how I would describe the procedure: __________________________________________________________

B. In my own words, the reason for this procedure: __________________________________________________________
Day of Surgery

On the day of surgery, it is normal to be nervous. After you have taken your second shower, your nurse will give you two medications. One (Neurontin) is to help prevent nerve pain after surgery. The other (Versed) is to help you to relax.

You may bring something comforting to the operating room with you such as a stuffed animal, blanket, music, photo or other familiar item.

Once you are in the operating room, we will place stickers on your chest, one of your fingers and a blood pressure cuff on your arm. These will help us to monitor your heart and lungs while you are sleeping. Then you will be given special medicine through a mask. This medicine is called anesthesia. The anesthesia mask will be placed over your nose and mouth. You will need to take a couple of deep breaths and you will be asleep in no time! All IVs and catheters are put in after you’re asleep, so you won’t feel a thing!

We will also place electrodes from the top of your head (this is why we need a part in your hair) to your feet, on the front and back of your body. You will not feel this because you are sleeping. These electrodes will be used during surgery to measure the small electrical signals that your body makes to communicate with the brain. The nerve pathways that are normal for you are recorded as wavy lines on a piece of paper. During your surgery, these pathways will be monitored to detect any changes. These electrodes will be removed before you wake up from surgery.

When your surgery is finished, you will be taken to the PACU (Post Anesthesia Care Unit). You will still be sleeping. In this area, we will take an x-ray of your spine and obtain labs after surgery. You will also be monitored by a nurse who will determine when you are awake enough to return to your room. Your parents will be allowed to come and see you briefly. When you wake up in your room you will be connected to a vital sign monitor, IVs for fluids and pain medication and have a plastic drain to collect fluid from the incision.
What to Expect After Surgery

For the first two days after surgery, you will be on a special bed that turns continuously, this bed is called a Hill-Rom Sport bed. The turning is done very slowly and you will usually stay in each position for about 15 minutes. This can be adjusted according to your comfort level. The only thing you have to do when being turned is relax, and tell us how we can position you more comfortably. Turning keeps you from getting stiff and helps to prevent pressure on your skin which can cause sore spots and the changing of position also helps your lungs stay in good condition.

Pain Management

Everyone’s experience with pain after surgery is different. Your doctors, nurses and family all have the same goal: to help you be as comfortable as possible. You will receive a combination of pain medication through your IV and taken by mouth. But remember...tension in your body and tightening of your muscles can make you hurt more, so it is very important to help yourself relax and stay as calm as possible. It is okay to ask for medicine for your pain when you need it. In fact, the medicine works best if you receive it before the pain becomes unbearable!

Your nurse will frequently ask you the level of your pain. He or she will use what we call a “pain scale” from 0-10. The 0 represents no pain, while the 10 signifies pain that is the worst you’ve ever experienced. Your nurse may ask you to describe your pain with words such as sharp, burning, throbbing or dull. Please be honest with your nurses at all times. They are here to help keep you comfortable.

The most important thing you can do is to identify what helps you relax and then make a plan for yourself. Share your plan with a family member who will be at the hospital with you or write it down. Always keep a positive attitude; each day will get better!

Diet

You may not feel like eating at first. The day of your surgery, your nurse and your family may keep offering you something “clear” to eat or drink such as water, apple juice, popsicles, Jello® or Gatorade®. Eating and drinking helps you regain your strength more quickly.

The next morning, you will begin to eat regular food. You may eat whatever you like from the cafeteria or from outside the hospital. It is important that you eat because the pain medication that you will take by mouth will cause stomach pain, nausea and vomiting if taken on an empty stomach.

In order to prevent constipation and dehydration, it is important that you drink lots of fluids while in the hospital and at home.
**Sitting, Standing, and Walking**

Immediately after your surgery, your nurses and your family will be helping you with any necessary movement, but by the time you are ready to go home, you will be walking out the door. How can this happen in a few days? Your physical therapist is the key. He or she is the person who will help you and your family learn the correct way to move in bed, as well as to sit and walk properly. Together, you and your physical therapist will set goals for moving in bed, sitting up and walking.

You will meet your physical therapist the day after your surgery. Your physical therapist will talk to you and your family about sitting, standing and walking. Your therapist will assist you in sitting up on the edge of the bed. You will sit for several minutes to become accustomed to the change in position. The therapist will then help you to stand. You will stand for a few minutes while holding on to something to stabilize yourself. Deep breathing is often helpful when standing for the first time after surgery as it helps to relax your body and keep you calm. Then you will go for a walk. The therapist will hold on to you to help keep you steady as you take a few steps. Your therapist will not make you walk farther than you can, but will ask you to set a goal to walk out to the nurse’s station. After your walk, you will sit in a chair beside your bed. Again, you will find this difficult after surgery, but we ask that you set a goal of sitting for 30 minutes. The therapist will return again in the afternoon to repeat these exercises. If you are a patient who is unable to walk and uses a wheelchair instead, the therapist will assist you and your family in transferring you to your wheelchair. Remember, your wheelchair may feel different after surgery because of your change in the way you sit. If needed, you can go home with a rental wheelchair until your wheelchair is modified to suit your needs.

You will be walking and sitting more each day and will be able to venture out of your room, walk around the nurses’ station, down the hall to the activity room located on the third floor, or as far as you can go.

Because the physical therapist will only visit you twice a day, your nurse and family will often be the one helping you to do these things. Try to remember, the key to feeling better faster and returning home sooner, is to get out of bed and keep moving!

Once you are able to get out of bed and walk with the help of your family, you will be able to get up when you want to and soon will no longer need assistance each time you want to go for a walk.

**Respiratory Therapy**

It is important to keep your lungs healthy after surgery. When you return to your room after surgery, you will meet another important team member. The respiratory therapist will provide you with breathing treatments (medication you breathe in) to help you expand your lungs. Your nurse will also be reminding you to take deep breaths for several days after your surgery. You will be given a device called an incentive spirometer. This helps your lungs expand and keeps them clear and working at their best. You may get tired of everyone reminding you to use the spirometer. Please remember that it is important that you do as requested. Regular use of the spirometer is the best way to prevent fevers and avoid complications such as pneumonia.

The best way to make this an easier experience is to work together with the nurses, therapists, doctors and your family. Communicating with the care team will greatly benefit you and will help them take better care of you.
Recovery at Home

The goal for you at home is to return back to your everyday activities as quickly and comfortably as possible. On the day of your discharge, your nurse will review your discharge instructions and provide you with a printed copy. Going home is very exciting but it can also be challenging and discouraging at times.

In order to assist you, please call daily to speak to your office nurse. The number is 786-624-4679 Monday through Friday, from 8 a.m. to 5:30 p.m. Each day, the nurses will review how your recovery is progressing at home, focusing on such topics as:

- Managing pain
- Weaning off of the pain medication
- Constipation
- Eating/appetite
- Activity level
- Incision care

And of course, the nurses will answer any questions and/or concerns you may have.

Please call the office after hours or on weekends at 305-662-8366, if you experience any of the following symptoms:

- Any numbness, tingling or weakness in the arms or legs
- Excessive pain, uncontrolled by pain medication
- Fever of more than 101.5F
- Change in appearance of incision:
  - increased redness, swelling, drainage, bad smell or any open areas along incision

Your post-op appointment is: ________________________________.

At your post-op appointment, you will be provided with a letter that will allow you to return to school. The letter should be given to your school to explain the restrictions that your surgeon would like you to follow.