UC DAVIS HEALTH

# SPINE SURGERY

# PRE-OPERATIVE EDUCATION PACKET

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Thank you for choosing UC Davis to manage your surgical needs. We look forward to working with you and your family to improve your health and wellbeing.

Please take a moment to read the information that follows, as it will answer most of the questions you may have regarding your upcoming surgery.

Your surgical team is made up of a multi-disciplined team that includes surgeons, anesthesiologists, nurse practitioners, physician assistants, nurse case managers, nurses, medical assistants, physical therapists, orthotists, occupational therapists, and physical medicine and rehabilitation physicians.

**Your Spine Clinic team includes:**

Surgeon: _____

Nurse Practitioner/ Physician Assistant: _____

Nurse Case Manager: _____

**Spine Center Phone Number:** 916-734-7463 **FAX:** 916-703-7915
**Orthotics:** 916-551-3203

The name of your surgical procedure is:

_____

Your surgery date: _____ Time of Surgery: _____ Arrival time: _____

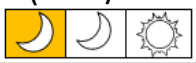
**You will receive a call TWO-THREE days prior to your surgery to let you know what time you are scheduled for surgery, what time to arrive to the hospital, and what time to stop eating and drinking. If you do not receive a call by 6:00 p.m., the night before your surgery, please call 916-734-8973.

## PREOP CHECK LIST

### TWO-THREE WEEKS BEFORE SURGERY

- ☐ Hold (stop taking) anti-inflammatory medication 7 days before surgery:
  * Nonsteroidal anti-inflammatory (i.e. ibuprofen, naproxen, celecoxib, etc.) and antiplatelet agents (i.e. aspirin, clopidogrel)
  * Anticoagulant agents (i.e. warfarin; DOACS i.e. apixaban, rivaroxaban etc.)- ***hold per prescribing provider.***
- ☐ Attend preoperative (2 hour) appointment at Spine Center
- ☐ Complete lab work (if not done)
- ☐ Complete imaging if needed

### TWO DAYS BEFORE SURGERY

- ☐ Shower with soap provided (CHG/hibiclens)- shower 2 nights before, 1 night before, and the morning of surgery 
- ☐ Should receive call from hospital 2-3 days prior to surgery date with arrival time and instructions.

### THE DAY BEFORE SURGERY

- ☐ Prepare a travel bag of items that you will need during your hospital stay
  - ☐ Advance Directive, insurance card and government issued photo identification (driver's license, passport, or California ID).
  - ☐ Education packet from the Spine Clinic
  - ☐ Glasses, hearing aids (with extra batteries) and dentures (with container)
  - ☐ CPAP or Bi-PAP Machine- mask and cord.
- ☐ Eat small light meals and increase fluid intake to reduce the chance of bowel problems after surgery.
- ☐ Shower with soap provided (CHG/hibiclens) 
- ☐ Stop eating or drinking **(per instructions from anesthesia-PREP TEAM)** depending on time of your surgery
  a. 10:00 p.m. if you are the first case (surgery) of the day
  b. Midnight if you are not the first case of the day

### THE MORNING OF SURGERY

- ☐ Shower with soap provided (CHG/hibiclens) 
- ☐ Take any essential medications with a small sip of water (discussed with PREP team)

## ONE DAY BEFORE SURGERY

**Shower with soap provided**

**Diet Recommendations:**

- Eat small light meals the day before surgery. This will reduce the chance for bowel problems after surgery.
- Stop eating or drinking **(per instructions from anesthesia)** depending on time of your surgery (10:00 p.m. if you are the first case of the day, midnight if you are not the first case of the day)

**Please pack and bring:**

- Medication List: Bring an updated list of medications and supplements, please include the strength and how often you take them (e.g., *Lisinopril, 20mg, once daily)*.
- Advanced Directive or Living Will if one is available
- Insurance cards and a government issued ID (such as a driver license, passport, California ID)
- Education packet obtained from the Spine Clinic on the day of your preoperative visit
- Glasses, hearing aids (with extra batteries), dentures with closed container
- Soft cotton, close-fitting T-shirt (for patients wearing a back brace after surgery)
- CPAP or Bi-PAP machine (mask and cord) if you use one at home
- Cell phone (optional: Electronic tablets/computer/video games, crossword puzzles, books, etc.)

Optional:

- The hospital will provide toothbrush/ paste, soap, powder/lotion, non-skid socks, deodorant, and shaving supplies, but please bring other toiletries as needed.
- Bath robe with tie
- Button-down shirt or loose T-shirt and loose elastic pants
- Front wheel walker, well-marked with your name
- Assistive equipment called “Hip Kit” (long handled grabber/tongs, shoehorn, sock assist, etc.), available from Amazon.

**Please leave at home:**

- Medications should be left at home, unless they are specialty medications or brand name, then please bring medication in original pharmacy bottle for verification.
- Money, credit cards
- All jewelry and accessories
- Contact lenses
- Tobacco products and accessories, the hospital campus is smoke and tobacco-free.

## DAY OF SURGERY

**At Home the morning of surgery**

- Drinking water is permissible up to two hours prior to your scheduled **arrival** at the hospital for check in. If you take medications in the morning, you may take them with water.
- Shower with soap provided.
    - Avoid wearing lotion or cosmetics, especially mascara.
- Wear clean, loose-fitting clothing to the hospital (i.e. sweatshirt/pants).
- No jewelry.
- Remove any nail polish from the thumb, index, and middle fingers on each hand.
- Wear glasses if you have them, leaving contact lenses at home.
- Wear your dentures if you have them, but have a container with your name, nearby. You will remove both dentures and glasses just before going into the operating room.

**At the Main Hospital**

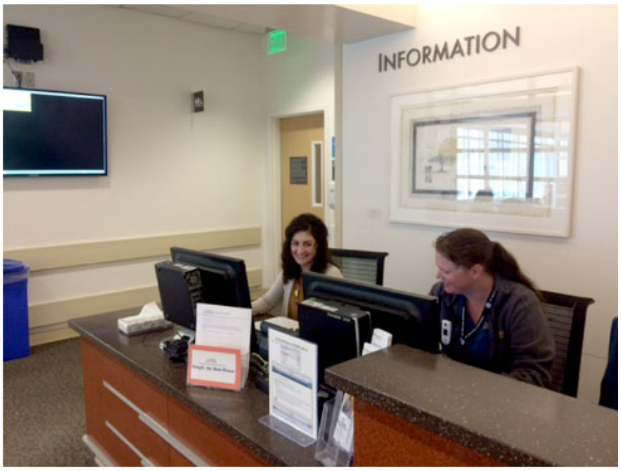
- Park in main parking structure to the left of the hospital. Parking validation is for 'Day of Surgery' only
- Visitor information- please check the website for most updated UC Davis visitor policy: https://health.ucdavis.edu/medicalcenter/visitors/visitors.html
- Check in with the Information Center in the main lobby. You will be directed to the preoperative admissions department where you will check in and be taken to the preoperative hold area.


Admissions is located on the first floor of the hospital's pavilion wing, where you will show your ID, insurance card, complete paperwork, and pay your co-pay.

Once you've checked in at admissions you will proceed to the surgery reception area located in the surgery waiting room, on the third floor of the hospital's pavilion wing area.

**Preoperative Hold Area - Third Floor Pavilion Main Hospital**

- Staff will obtain your visitor contact information; provide you with information regarding parking as well as pre-op and post-op visitation.




Surgery waiting area staff are available to answer questions for you and your loved ones

- The surgery waiting room is the location your family members or loved ones may wait for you while you are undergoing surgery. Waiting room staff will be available for any questions your family or loved ones may have during your surgery.

- Waiting room staff will provide information for reading the electronic patient status board. The board will allow your family member or loved one to track your progress through pre-op, surgery, and recovery.

- When it is time to start preparing you for surgery, a registered nurse or another staff member will find you in the waiting room and escort you to a pre-op room.

- Your family member will be asked to wait in the waiting room while you are prepped for surgery. The family member will be allowed back to sit with you once you are prepped for surgery.

In pre-op you will meet several specialists who will help prepare you in different ways:

- The pre-op nurse will check your vital signs, complete a physical assessment, start your IV, and make the needed notations on your chart. This is the time you will review your home medications with the nurse. The pre-op nurse will also provide education regarding what to expect after surgery in the recovery area.

- You will be asked the same questions by many different people during this time. **We do this on purpose**, so any discrepancies can be resolved early.

- The anesthesiologist will meet you and discuss the anesthesia process with you. The anesthesiologist will accompany you into the operating room and an anesthesiologist will be with you for the duration of your surgical procedure.

- You will see your surgical team to confirm your surgical procedure and answer any last-minute questions. If you have not signed your consent, you will sign it at this time.

- You will be given some preoperative medications at this time.
- Once the pre-op nurse's process is complete, up to two visitors* may sit with you in pre-op room until it is time for you to go to the operating room. All visitors must be escorted in and out of the pre-op and post-op recovery areas. ***Please check the UC Davis Health Visitor Policy for the must current information regarding visitors.**
- Once you are wheeled back to the operating room, your family will be directed to the waiting area on the third floor.
- The surgical team will contact your loved ones via phone or in person once surgery is complete.

**Surgical Suite (operating room)**

- Once in the operating room, you will move to an operating room bed.
- The team will attach multiple monitors to you, including EKG (heart monitor) leads, blood pressure cuff, pulse oximetry device (oxygen monitor), etc. Once these monitors are in place, you will receive IV anesthesia medication to make you comfortable and deeply asleep during surgery.
- You will be closely monitored by the surgical and anesthesia teams during your surgery.
- When the surgery is complete, you will be transferred to the Post Anesthesia Care Unit (PACU, also known as the recovery room), where you will wake up.

**PACU (post-anesthesia care unit)**

- Once in the PACU, you will continue to be monitored closely by your PACU nurse until you are reasonably awake and ready to go to your hospital room (if you are staying overnight) or discharged home (if going home same day).
- You may have equipment in place, such as wound drainage tubing, urinary catheter, IVs, compression stockings/pumps on your legs, etc. Please leave these in place. They are for your protection and assist the team in your care.
- If you are in pain or nauseated, tell your nurse.
- One family member may join you in the PACU once you are settled, stable, and any routine labs/x- rays have been done.
- Once you are deemed stable to leave the PACU, if out-patient, you will be discharged home. If you are staying overnight, you will be taken to your hospital room, or you may go directly to the ICU after surgery and wake up there.
- Children will be transferred to the pediatric unit (medical-surgical or intensive care).

## IN YOUR HOSPITAL ROOM

Once you are established in your room with your nurse, your family can join you. **Following current UC Davis Health visitor policy.*

During your hospital stay, a multidisciplinary team of professionals will work with you to maximize your postoperative recovery experience. You will need to be medically stable and meet certain goals to be safely discharged from the hospital. Your bedside nurse will go over the goals in more detail, including, but are not limited to:

- Lung health- deep breathing and incentive spirometry
- Nutrition and hydration- eating and drinking
- Pain control- positioning, oral medication, and deep breathing
- Bladder care- adequate hydration, urine output and control
- Bowel motility- constipation prevention
- Safe mobility- in and out of bed and walking (following your spine precautions)

You will continue to be monitored throughout your hospital stay by your hospital team.

- A beside nurse, will check your vital signs, administer medications, provide hygiene care and communicate with the surgeons any concerns that may arise.
- A Nurse Practitioner will examine you daily.
- **Tubes and Drains** may be placed or inserted for perioperative care as follows:
    - a Foley catheter to drain urine
    - surgical wound drain
    - pneumatic compression stockings
    - IV (to administer anesthesia, medication and IV fluids)
    - Each piece of equipment will be removed as you improve and no longer need it.
- The Nurse Case Managers will assist with any discharge needs recommended by the team, such as equipment, home health care, physical or occupational therapy, or rehab facility.
- The surgical team (residents, fellows and attending surgeon) will check on you every day. If you have questions for the team, write them down and ask them during this time. The Nurse Practitioner will also be available throughout the day to answer questions and manage concerns.
- You may need a brace after surgery. This will be ordered by the surgical team and fitted by the orthotics team.
- Prior to discharge, patients who underwent spinal fusion will have x-rays taken.

**Incentive Spirometry:**

You will be given a small portable device to help you take deep breaths after surgery. It helps with lung expansion, prevents pneumonia and blood clots. Your bedside nurse will demonstrate how it is used.

**Eating and drinking:**

Anesthesia medication slows the motility of the intestines, and it may take time for them to start moving/working again, even though you are awake. Until they are functioning normally, you will be given a clear liquid diet that is gradually increased to regular food.

If you develop an ileus (delayed return of bowel function), you will remain in the hospital and not be able to eat until it resolves. Eating light and increasing fluids the day before surgery may help reduce your risk of developing an ileus.

**Pain management:**

Good pain control is important, not only for your physical and mental wellbeing, but also for your recovery. Your pain should be controlled enough to allow you to sleep naturally and to work with physical therapy effectively. Opioid pain medication will not relieve ***all*** the pain, but it should make the pain tolerable so that you can function and reach your goals.

You will initially have IV opioid medication to manage your pain. As your pain improves, you will graduate to an oral pain medication regimen to manage your pain before you are discharged from the hospital.

Talk to your nurse, nurse practitioner or surgical team if your pain medication is not keeping your pain in reasonable control or if it is making you feel too sleepy, nauseated, or itchy. If you have been on long-term opioids in the past or sensitive to narcotic medication, you may benefit from a consultation with the Pain Pharmacy Specialists.

**Physical and Occupational Therapy:**

You will start Physical Therapy and Occupational Therapy as soon as possible, even on the day of surgery. The Occupational and Physical Therapists will see you once a day and will explain all the goals of therapy based on the type of surgery you had and prior level of function. You will be shown how to perform exercises while you are lying in the hospital bed during your stay.

You will learn safe body mechanics; how to get in and out of a bed and chair; how to use a walker or cane; walk up and down the stairs; and how to wear your brace (if you need one).

A physical therapist will help determine your level of safety to be discharged home or to a rehab facility when you are ready to leave the hospital. Staying a week or two in a rehabilitation facility is sometimes necessary until you are safe to return home.

**Bowel and Bladder care:**

Normal urination and passing gas are important goals to achieve prior to discharge. These functions should return naturally, but both can be delayed by anesthesia and medications. Your nurse will be monitoring both functions during your hospitalization, but if you have difficulty with either urinating after the urinary catheter is removed; or if you have nausea, are not passing gas or have abdominal pain and swelling, you will need to let your nurse, or the surgical team know so that appropriate measures can be taken to resolve the underlining problem.

Constipation is a common side effect of taking opioid medication, but can be managed with:

- Increased physical activity like walking
- A diet rich in fiber (oatmeal, beans, legumes, fruits, especially citrus, and vegetables)
- Dried fruits (prunes, plumbs, apricots, apples) or prune juice
- Medication such as stool softeners (Colace, Dulcolax, or MiraLAX)
- Supplements such as magnesium or milk of magnesia
- Hydration- Increased fluids
- Chewing gum

***IF you have kidney disease, do not take any over the counter laxatives with magnesium unless directed by your provider.***

Urinary retention after urinary catheterization is a common side effect that can be due to various reasons. Common causes of urinary retention can be due to prostate enlargement or medications, such as opioids. Medications may be adjusted, or you may need replacement of the urinary catheter, until the problem has resolved. Some patients may be discharged with a urinary catheter in place if the retention has not resolved by discharge.

**Discharge from the hospital:**


Based on goals of physical therapy, you may be discharged home or to a rehabilitation/skilled nursing facility (SNF). If you go home, someone should be there to help you for the first 1-3 weeks (sometimes longer). This person should be able to help you with meal preparation, driving, grocery shopping, laundry, dishes, housekeeping, yardwork, and take walks with you. Depending on your surgery and mobility, you may need help with managing your personal needs, like hygiene, dressing, transfers, etc.

You may need some items to help you around the house, like a walker or cane, raised toilet seat, shower chair and graspers. Some people need help with putting on socks and shoes for a short period of time, and there are devices designed to assist with this task as well. Most people do not need a hospital bed during their recovery unless they are bedbound. These items can be ordered for you at the time of discharge from the hospital but be aware they are

not always covered by insurance and likely have an out-of-pocket cost which will be billed at the time of rental or purchase.

*Home Health is ordered for some patients and typically includes visitation by a physical therapist and a nurse. Home Health visits are 1-2 times/week for the first few weeks after surgery. *Home Health does not visit every day so you should not rely on home health for your care at home.*

*If you live in a rural area without access to Home Health services, please communicate this with the Spine Center nursing team.

Rehab/skilled nursing facilities (SNF) can provide nursing care and therapy to help improve mobility and ease the transition back to home. You will have daily physical therapy and will continue to work on goals of recovery until you are independent and safe enough to go safely home.

## ONCE YOU ARE HOME

*You will receive a phone call a day or two after you are discharged from the hospital from the UC Davis Medical Center Post-Hospital Discharge Follow-up Program, 916-382-7576. This is an automated call. If you need help with anything, you may push the correct number for a nurse to call you back. If you need help prior to the call, you may call into the program or call the Spine Center, 916-734-7463.*

Once you are home, you should continue to focus on the following goals for optimal recovery:

- **Nutrition**
- **Activity**
- **Pain management**
- **Wound care**

### NUTRITION

For any type of surgery, regardless of wound size, your body needs extra calories and protein to help heal that wound. So, the larger the wound, the more important nutrition becomes. After surgery, you may not feel up to eating food, so we encourage people to drink protein shakes or smoothies as a way of increasing their caloric and protein intake. (If you have kidney disease, please work with your nephrologist for appropriate nutritional goals about protein intake).

**Here are some suggestions to help with wound healing**:

- Increasing your protein and calorie intake with fish, chicken, turkey, legumes, tofu, egg whites and protein smoothies. Diabetic patients should continue good blood sugar control to optimize wound healing and decrease the risk of wound infection.

- Calcium is important for bone healing. You will need 1500 mg calcium a day. Cow's milk (275 mg in 8 oz) and almond milk (450 mg in 8 oz) are high in calcium, as well as green leafy veggies. There are also many different calcium supplements available over the counter that are chewable. Take 500 mg of calcium 3 times daily if you don't drink milk. Do not take them all at once. *All forms of calcium count towards your total daily intake.

- Vitamin D3: take 1000 IU daily, it is important for calcium absorption and bone healing. It often comes in the calcium supplement, but you will need to take a separate supplement to get enough while you are healing.

*Optional:* Zinc-- take 25 mg daily, please take it with food as it can cause nausea on an empty stomach. Zinc is important for general wound healing.

*Optional:* Vitamin C-- take 500 mg, four times a day. Vitamin C is important for wound healing as well. Vitamin C also comes in chewable form.

## ACTIVITY

### EXERCISE:

After surgery, regardless of the type you had, the best physical therapy is walking. You should begin with short walks and increase your time and distance as tolerated. This may be walking 5-10 minutes outdoors three times a day initially, increasing your distance every few days, and working up to a total of an hour of walking a day for the first 6 weeks after surgery.

- If you were given a walker after surgery, you will need to use it when out of bed, and it is advised to have someone with you when you are on your walks.
- You may graduate to a cane if you feel steady enough after a few weeks of using the walker.
- If your preoperative pain returns, you are too active and need to slow down a bit, until the pain resolves, then resume walking again.

### PHYSICAL THERAPY and OCCUPATIONAL THERAPY:

You may have physical and/or occupational therapy at home right after discharge. It is dependent on what your needs are at the time of discharge. If it is ordered, the goals are to help you learn precautions and navigate your home safely, and for you to be functioning safely and normal as possible, with the postoperative restrictions/precautions in place.

### NECK or BACK BRACE:

Bracing is based on the type of surgery you have.

- If you were given a back brace in the hospital, you will need to wear it as instructed. Usually daily, while up and walking or sitting, until your postoperative visit in 4-6

weeks. You do not need to sleep in it unless otherwise instructed.

- If you were given a neck brace or collar, you will need to wear it as directed. This is usually until your first postop visit in 4 to 6 weeks. Collars are generally worn all the time, including sleep and showering. A special shower collar will be provided.
  You should have received two sets of pads for your neck collar. These can be removed and replaced daily. Wash with mild soap and water. Lay flat to fry. Keeping the pads clean will help to prevent infection and skin breakdown around your neck.
- If your surgery includes a **cervical disc replacement**, you will **not** need a neck brace and will be encouraged to move your neck in a normal manner.
- If you have any concerns about your brace- fit, discomfort, maintenance- you may call our orthotist, at 916-551-3203.

**ACTIVITIES TO AVOID**:

Please **AVOID** any **Bending, Lifting or Twisting** after surgery for the first 12 weeks following surgery. Just remember, no BLT.

- Avoid household chores such as laundry, vacuuming, loading, or unloading the dishwasher, labor intensive cooking or cleaning, gardening or yard work.
- Avoid strenuous activities like golf, tennis, running, cycling, skiing, fishing, any contact sports, horseback, or motorcycle riding.
- You have a lifting restriction of 10 lbs. until your first postop visit in 4-6 weeks, and possibly longer.
- Remember, we simply want you to walk for the first 12 weeks after surgery. There are some assistive devices that can help you avoid bending, lifting or twisting during your recovery. They include front wheel walker, long-armed grasper, long-handled shoehorn, bedside commode, raised toilet seat, etc.

**DRIVING**:

You may resume to driving only if your pain is minimal and you are no longer taking any medication that can impair your judgement or cause drowsiness. You should be able to think clearly, be able to move and react quickly, and turn to see all blind spots before you resume driving.

Driving impaired or distracted can put you and others at risk for injury or legal problems. It is illegal to drive a vehicle with medication that makes you drowsy (including opioids, muscle relaxers, gabapentinoids, and more).

*If you had neck surgery and must wear a collar, you will not be able to drive until you are out of the collar and have regained full motion of your neck.*

Driving for longer than 1 hour at a time is not advised for all patients for the first 3 months after surgery. It puts you at risk for developing a blood clot in your lung or leg. **Please check with the Spine Center team before travelling long distances.**

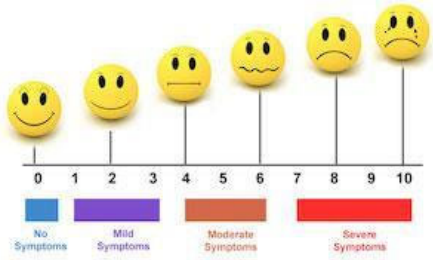
**AIR TRAVEL**: Air travel should be avoided for the first 3 months following surgery due to the increased risk of blood clots that can form in the lungs or legs. Please check with your surgeon before you travel by this method.

**SEXUAL ACTIVITY**: You can ease back into sexual activity when you are feeling up to it and if the back or neck (depending on your surgery) is fully supported. If it causes pain to either of these areas, it may be too soon for this activity.

**RETURN TO WORK**: Depending on the type of surgery and occupation, you may be able to resume light duty or part time work with or without restrictions 6-12 weeks after surgery. This can be increased to fulltime over a few weeks as long as there are no problems. In general, we prefer you take 6-12 weeks off before returning to full-time work without restrictions. Allowing yourself to heal fully will help prevent long-term complications.


## PAIN MANAGEMENT and other sensations

You should expect to have some pain after surgery. This is normal. What can be confusing is **how much** pain to expect after surgery. A good rule of thumb is the larger or more complex your surgery, the more pain you will have. The first 2-3 weeks after surgery are generally the most painful. Fortunately, surgical pain improves with time; as the wound heals, it becomes less painful. You may also notice a significant amount of fatigue after surgery. This too is normal and should improve over 4-6 weeks.




You will be given some form of opioid medication after surgery. These include medications such as Norco (hydrocodone + Tylenol), and Oxycodone. Other non-opiate medications that you may be taking include Tylenol (acetaminophen), Neurontin (Gabapentin), Lyrica (pregabalin), Flexeril (cyclobenzaprine) or baclofen. **Please take all medication as prescribed.** This is for your safety.

As your pain improves and you resume more of your normal activities, you will be able to taper off narcotic medication completely. If you have been on long-term opiates, you may be able to decrease your dose significantly. Staying active is an important way to reduce your pain. Lying around or staying in bed makes you stiff and achy, increasing your pain and prolonging your recovery. Other ways to improve pain include heat/ice, gentle massage, light stretching, short frequent walks, position changes, meditation, and deep breathing.

Once discharged home, you will receive one week of pain medication. When you have 2-3 days left, please contact the Spine Center for refills. The Spine Center will manage your pain medications from 2-12 weeks postoperatively, depending on the pain medication agreement you signed before surgery. Prescriptions are refiled on a weekly basis during the pain treatment period. Every week you call in for a refill, the medication is slightly decreased for a gentle taper down on the narcotics. Surgical healing follows a very predictable course with tissue/muscle healed in 6 weeks and resolution of surgical pain. The Spine Center is a surgical specialty and not equipped to manage chronic pain, so if you still need opiate medication after your pain agreement has ended, you must contact your primary care provider or pain management specialist for long-term management and refills.

The most concerning side-effects of opiate medication are **respiratory depression (shallow or not breathing), sedation** and **addiction**. These side effects can occur with low and high dosing and even after long-term use. You may be given Narcan (naloxone) nasal spray (opiate antidote) when discharged from the hospital, in the event of an accidental overdose. This should be placed in an easily accessible spot like the kitchen or bedroom, to ensure easy access for your caregiver and yourself. Other warning signs of overdose include **small pupils, confusion, delirium, stupor, nausea/vomiting, seizure, inability to wake up, loss of consciousness and coma**. If a narcotic overdose is suspected, your family will need to call 911 and deliver one spray of Narcan into the nasal passage.

The most common non-lethal side-effect of opioid use is ***constipation***. Below are some suggestions for managing the constipation that comes with opioid use:

- Increased physical activity like walking
- A diet rich in fiber (fruits, especially citrus, and vegetables)
- Medication such as Colace, Dulcolax, or MiraLAX
- Supplements such as magnesium or milk of magnesia
- Increased fluids, chew gum

## UNEXPECTED PAIN AND OTHER SENSATIONS

Sometimes, you may feel pain, numbness or tingling in the arms or legs, back or neck, that was not there before surgery. This can be normal and typically resolves in a few days to a couple of weeks. If you develop these symptoms, it is important that you take gabapentin or Lyrica to help manage this new pain or altered sensation, until it resolves. If it does not improve over 1-3 weeks, it may be something else and you will need to notify the nurse practitioner or physician assistant at the Spine Center.

## ANTI-INFLAMMATORIES AND FUSION SURGERY

*If you had fusion surgery* (fusions almost always include the use of screws, rods, or plates), please avoid anti-inflammatories for the first 3 months following your surgery, unless otherwise instructed by your surgeon. These include Advil/Mortin (Ibuprofen) Naprosyn/Aleve (Naproxen), Aspirin, Mobic (Meloxicam), Diclofenac, Excedrin, etc. Anti-inflammatories

interfere with the bone healing process with fusion, which is critical during the first 3 months postoperatively. After the first 3 months following surgery, confirm with your surgical team prior to resuming.

## WOUND CARE


Whether your skin incision is 1 inch long or the length of your back, it should be completely closed in 2-3 weeks. The underlying tissue and muscle take about 6-8 weeks to heal. If you had abdominal surgery, this could take up to 6 months to fully heal. Incisions can re-open (dehisce) if too much stress is placed on the sutured tissue during the healing process. All incisions are initially red, swollen and bruised. All of this should improve over 2-4 weeks. Swelling can take longer than 4 weeks to resolve. The incision may also feel numb for 6-12 months, this is normal.

If you notice redness or swelling at the incision site, cloudy, discolored, or foul-smelling drainage, or an increase in drainage from the incision, call the Spine Center right away to speak with a triage nurse.

## DRESSINGS

**Please review your After Hospital Summary (AHS) for specific instructions on your incision care. If you misplaced or did not receive your AHS, it is available in your UC Davis MyChart.**

Surgical Dressings:

- *Please refer to your AHS for specific instructions*. Generally, the dressing should be changed if soiled, but not on a regular basis. Waterproof dressings allow showering once home. **Any questions should be referred to the Spine Center team.*

- **Always wash hands** when changing a dressing. Wash hands before beginning, and after you are finished. Remove the old dressing carefully. When replacing the new dressing, be careful to avoid touching the side of the dressing that will contact the skin incision. Touch only the edges on the outside of the dressing, then tape securely.

- There may be surgical glue over the incision with steri-strips applied. After 14 days, if still attached, you may remove them with soap and water. If a small area of the incision is not completely closed once the steri-strips are removed, you may place a band-aid over these areas until completely closed. Any residual glue can be removed with alcohol.

- If you have sutures or staples on the outside of the incision, they will need to be removed by a health care professional at the Spine Center, your Primary Care Provider's office, or a home health nurse, 2-4 weeks after surgery. ***A photo of your incision sent via MyChart will help the clinical team evaluate your wound.***

- **Do not apply lotions, creams, or antibiotic ointments to the incision while it is healing. Once it is closed, if the skin is dry, a lotion or cream to the area is reasonable.**

**Once the incision is completely closed, you no longer need a dressing, and should keep the incision clean, dry, and open to air. At this point, you may resume showering, being gentle around the incision when washing, then pat dry.**

- **Drain:** If you were sent home with a drain in place, continue to empty the drain, per instructions provided by your nurse at discharge. Record the drainage every 12 hours and contact the clinic per the instructions in your AHS or if still in place 3 days once home. A Home Health Nurse or Spine Clinic Nurse will remove the drain within one week following surgery.

- **PICO or Pravena**: If you are discharged with a PICO or Pravena Dressing, it should stay in place for 10 -14 days. It is a surgical wound vacuum that is designed to pull nutrients to the surgical incision and wick away any drainage from the skin. Please refer to your AHS for any trouble-shooting needs with these dressings.

**Nicotine use and Wound Healing:**

Optimally, nicotine cessation was discussed with you at least one month prior to surgery and should continue for at least 6 months after surgery. This is an excellent time to quit for good.

Nicotine products (cigarettes, chewing tobacco, patches, gum, lozenges, e-cigarettes, vaping) interrupt the fusion and tissue healing process and will not allow your fusion to form or tissue to heal together. This can cause infection, more pain, non-union, broken rods or screws, and may require additional surgery. We understand quitting nicotine is difficult, but it is essential for optimal healing after fusion surgery.

UC Davis has certified tobacco treatment specialists. Please reach out to the Health Management and Education Department to enroll in a class with this team at 916-734-0718. You may also self-enroll through UC Davis Health MyChart or on the website: livinghealthy.ucdavis.edu


## Concerning Signs after Surgery:

- Fever (temperature more than 100.5 F), chills, or sweats that are unusual for you.
- **Increasing** pain, redness or swelling at the incision site.
- Cloudy, discolored, or foul-smelling drainage, or an increase in the drainage.
- A wound that has not completely closed or healed by 2 weeks.
- Chest pain, feeling short of breath or having trouble breathing.
- Sudden pain or swelling in one or both legs.
- Weakness in the arms or legs that was not there before surgery.
- Loss or change in bowel or bladder control that was not there before surgery.

## Opiate Overdose antidote: Narcan nasal spray

**Signs of opiate overdose include** respiratory depression (trouble breathing, slowed breathing, not breathing), confusion, disorientation, dizziness, slurred speech, small pupils, nausea/vomiting, seizure, inability to wake up, loss of consciousness and coma.

**Patients at higher risk for a opiate overdose:**

- Elderly
- Patients with decreased liver function
- Patients with sleep apnea, chronic obstructive pulmonary disease (COPD), depressed lung function
- Narcotic naïve patients

If a family member or friend suspect the patient has overdosed on narcotic medication***, please call 911 and deliver 1-2 sprays of Narcan (naloxone) into the patient's nose***. If the patient has any of these problems, please contact the Spine Center immediately and speak with a nurse or the nurse practitioner, *after emergency help has been provided*: 916-734-7463

## FAQs
## (Frequently Asked Questions)

**How soon can I have a dental procedure, (i.e. teeth cleaning) after surgery?**

- You should wait a minimum of 6 months after surgery to see your dentist for routine care. If you have instrumentation in your neck or back, you will need to take a one-time dose of antibiotics prior to having any dental work within the first year following your surgery.

**How soon can I travel after surgery, for both car and air travel?**

- You should wait a minimum of 3 months after surgery to travel by air. You may travel by car sooner, if you take frequent breaks along the way to get out, stretch and walk around.
- If you can't avoid air travel before 3 months, please contact your surgeon and discuss this issue before your surgery. Taking a daily aspirin (81-325 mg) one week before, during and one week after your air travel can reduce the risk of developing blood clots in your lungs (pulmonary embolism, which can be fatal) or legs (deep vein thrombosis).

**If I have instrumentation in my spine, can I still get an MRI?**

- Yes, your instrumentation is most likely Titanium or Cobalt Chrome, and both are compatible with the MRI scanner.

**Will my instrumentation set off alarms at the airport?**

- It is unlikely your instrumentation will set off any alarms, but if it does, simply explain that you have instrumentation in your back, from spine surgery, this will be evident during x ray scanning before you board a plane.

**What are the risks of having spine surgery?**

- The risks are equal with your age and health. So, the older and unhealthier you are, the higher the risk. But in general, there are many risks with having any surgery that requires general anesthesia. They include (but not limited to): significant blood loss, infection, continued pain, accidental injury to nearby organs, tissue, or structures such as nerves, veins, arteries, spinal canal or spinal cord. Risks also include having a heart attack or stroke, changes in your vision or developing a pulmonary embolism (blood clot in the lung). Nearly all risks are very rare but can be devastating if they occur. Fortunately, surgery is designed to decrease the risks and protect you during your hospital stay. The surgical and anesthesia teams, along with the nursing staff are keenly aware of the risks of surgery and follow policies, protocols, procedures, and safety check lists to maintain a safe environment and promote optimal outcomes for all patients.

**What medications do I need to stop before surgery?**

- If you are taking any non-steroidal anti-inflammatories such as Ibuprofen (Advil/Motrin), Naproxen (Naprosyn/Aleve), Aspirin, Mobic (Meloxicam), Relafen (Nabutemone), Voltaren (Diclofenac) etc., please stop them a minimum of seven days before surgery. If you have any questions about what medications that need to be stopped, please contact the office at 916-734-7463.
- If you are on long-term anti-coagulant treatment (Warfarin, Coumadin, Lovenox, Plavix, Eliquis, Xarelto, etc.), **confirm with your prescribing physician when it is safe to stop the medication prior to surgery and when to restart the medication after surgery.**
- If you are taking any anti-arthritis medication (Enbrel, Humira, Methotrexate, etc.), please check with the prescribing physician when it is safe to stop (usually two weeks before) and restart (usually 12 weeks after surgery) medication.
- You may continue any Tylenol or Acetaminophen containing products like Tramadol, Norco, or Oxycodone up to the day of surgery, but be sure to inform the perioperative team of the medications taken on the day of surgery.
- ***Many over the counter and prescription medications used to treat arthritis may contain aspirin.*** If you are unsure of a medication you are currently taking or a medication you have taken within 14 days of your surgery, call your pharmacist or check with the spine center 916-734-7463.

  ***Stop all herbal supplement and vitamins 2 weeks prior to surgery***

**How soon can I go back to work?**

- This answer often depends on the type of work you do and the type of surgery you had. As a rule, if you had surgery to the front of your neck (anterior approach) or a lumbar decompression surgery, you will most likely be able to get back to work 4-6 weeks after surgery. If you had fusion surgery, it is not unusual to take 8-12 weeks off to recover.

**Will I get a DMV Disability Placard?**

- Our office does not typically signoff on DMV disability placards since walking is such an important part of your ongoing recovery.

**FMLA/Disability forms:**

- All forms for FMLA and Disability paperwork are completed at the time of surgery.