
ORTEGA
SPINE

SPINE SURGERY PREOPERATIVE EDUCATION PACKET

Thank you for choosing us 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: Dr. Brandon A. Ortega

Nurse Practitioner/Physician Assistant: _____

Nurse Case Manager: _____

Clinic Phone Number: **(562) 348-4588** (Long Beach) + **(310) 375-8700** (Torrance)

Surgical Procedure: _____

Surgery Date: _____

Time of Surgery: _____

Arrival Time to Hospital: _____

You will receive a call 2-3 days prior to your surgery to confirm the time you are scheduled for surgery, time to arrive to the hospital, and 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 the clinic.

Preoperative Checklist

Two-Three Weeks Before Surgery

☐ Hold (stop taking) anti-inflammatory/anti-platelet/anti-coagulants 7 days before surgery:

- **NSAIDs** (Advil/Motrin, Aleve/Midol/Naprosyn, Celecoxib, etc.)
- **Antiplatelets** (Aspirin, Clopidogrel, etc.)
- **Anticoagulants** (Warfarin, Apixaban, Rivaroxaban, etc.) - **hold per prescribing provider**

☐ Attend preoperative appointment in clinic.

☐ Complete lab work (if not done)

☐ Complete imaging (if not done)

Two Days Before Surgery

☐ Shower with antimicrobial/antiseptic soap (Hibiclens)

One Day Before Surgery

☐ Shower with antimicrobial/antiseptic soap (Hibiclens)

☐ Eat small/light meals and increase fluid intake to reduce bowel problems after surgery

☐ **Stop eating or drinking at 10 p.m.**

☐ Prepare a travel bag with items that you will need during your hospital stay

- Advance directive, insurance card, and government issued photo identification
- Preoperative education packet
- Glasses, hearing aids (with extra batteries), and dentures (with container)
- CPAP/Bi-PAP machine (with mask/cord)

Morning of Surgery

☐ Shower with antimicrobial/antiseptic soap (Hibiclens)

☐ Take any essential medications with a small sip of water

☐ **Do not eat/drink (coffee, tea, etc.) – doing so may result in surgical delays/cancellations**

One Day Before Surgery

Hygiene:

- Shower with antimicrobial/antiseptic soap (Hibiclens)

Diet Recommendations:

- Eat small/light meals and increase fluid intake to reduce bowel problems after surgery
- Stop eating or drinking at 10 p.m.

Travel Bag:

- Medication List: Bring an updated list of medications and supplements, please include the strength and how often you take them (for example: Lisinopril 20mg once daily
- Advanced Directive/Living Will (if one is available).
- Insurance cards
- Government issued photo ID (driver license, passport, California ID)
- Preoperative education packet
- Glasses, hearing aids (with extra batteries), and dentures (with container)
- CPAP/Bi-PAP machine (with mask/cord)
- Soft cotton, close-fitting T-shirt (for patients wearing a back brace after surgery)
- Cell phone with charger

Optional:

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

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
- Jewelry/accessories
- Contact lenses
- Tobacco products (hospital campus is smoke/tobacco-free)

Day of Surgery

At Home:

- Shower with antimicrobial/antiseptic soap (Hibiclens)
- Take any essential medications with a small sip of water
- Wear clean, loose-fitting clothing to the hospital
- Do not wear cosmetics/lotion/perfumes
- Remove all jewelry
- Remove any nail polish/artificial nails from fingertips
- Remove contact lenses
- If applicable, wear glasses/hearing aids/dentures and bring case/containers
- You will remove glasses/hearing aids/dentures before going to the operating room (OR)

At Main Hospital:

- Park in visitor parking structure
- Check in at the main lobby where you will be directed to the preoperative (Pre-Op) area
- In Pre-Op you will meet the following team members:
    - **Pre-Op Nurse**
        - Will check your vital signs, complete a physical exam, start your IV, and make the needed notations in your chart. This is the time you will review your home medications. 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. This is done on purpose to identify any discrepancies can resolve them early.
    - **Anesthesiologist**
        - Will meet you and discuss the anesthesia process with you. The anesthesiologist will accompany you into the OR and will be with you for the duration of the surgical procedure.
    - **Neuromonitoring Technologist**
        - Will meet you and discuss the neuromonitoring process with you. Which involves monitoring the central/peripheral nervous systems during the procedure in order to help the surgeon perform a safer procedure.
    - **Surgeon**
        - Dr. Ortega will meet you in Pre-Op to confirm your surgical procedure and answer any last-minute questions or concerns. If you have not signed a surgical consent, you will sign it at this time.
- You will then be given preoperative medications.
- You will then be taken to the OR and family will be taken to the waiting room.
- Dr. Ortega will contact your family in person or via phone once the surgery is complete.

Operating Room (OR):

- Once in the OR, you will move to an operating room bed.
- Team will attach multiple monitors on you, including EKG leads (heart monitor), blood pressure cuff, pulse oximetry device (oxygen monitor), etc. Once these monitors are in place, you will receive IV anesthesia to make you comfortable/asleep during surgery.
- You will be closely monitored by the surgical/anesthesia teams during surgery.
- Once surgery complete, you will be transferred to the recovery area (Post Anesthesia Care Unit (PACU)), where you will wake up.

Post Anesthesia Care Unit (PACU):

- Once in PACU, you will continue to be monitored closely by your PACU nurse until you are 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 c-collar/brace, drain/wound vacuum, urinary catheter, IVs, and compression stockings/sequential compression device on your lower extremities. Please leave these in place, for they are for your protection and assist the team in your care.
- If you are in pain or nauseated, tell your nurse.
- Family may join you in PACU once you are awake and stable.
- Once you are deemed stable to leave PACU
    - If out-patient, you will be discharged home.
    - If in-patient, you will be taken to your hospital room. Sometimes it may be necessary to go to the intensive care unit (ICU) directly from the OR for more specialized care and closer monitoring.

Hospital Room:

- Once you are settled in your room, your family will be able to join you in accordance with the hospital visitor policy.
- During your hospital stay, a multidisciplinary team 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 team will go over the following goals:
    - **Lung Health** – Deep breathing exercises and incentive spirometry
    - **Nutrition/Hydration** – High protein diet and adequate hydration
    - **Pain Management** – Positioning and IV/oral pain medication
    - **Mobility** – Early mobilization on postoperative day 0 with PT/nursing
    - **Bowel Care** – Bowel regimen (stool softeners) on postoperative day 0
    - **Bladder Care** – Remove foley on postoperative day 1

- 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 your surgeons any concerns that may arise.
- Tubes/drains may be placed or inserted for perioperative care as follows:
    - Foley catheter to monitor your urine output
    - Surgical drain to prevent seroma/hematoma
    - Sequential compression device (SCDs) to prevent blood clots/DVTs
    - IVs to administer medication/fluids
    - Each piece of equipment will be removed as you improve and no longer need it.
- Nurse case managers will assist with any discharge needs such as a brace, equipment, home health, physical/occupational therapy, or rehabilitation facilities.
- Surgical team (Physician Assistant/Surgeon) will check on you (round) every day. If you have questions for the team, write them down and ask them during this time.
- Orthotics team will fit you for a brace if ordered by surgical team.
- You will have an x-ray taken prior to discharge (unless you underwent a decompression surgery without instrumentation).

Lung Health:

- An incentive spirometer is a small portable device that helps exercise your lungs. The purpose is to expand/strengthen your lungs and in doing so, prevent lung infections (pneumonia) by clearing mucus and other secretions from your chest/lungs. It is important to take 10 deep breaths every hour while awake.

Nutrition/Hydration:

- 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:

- Adequate 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/surgical team if your pain regimen is not reasonably controlling your pain or if it is making you too sleepy/nauseated/itchy. If you are a chronic opioid user or sensitive to narcotic medication, you may benefit from a consultation with a Pain Management Specialists.

Mobility:

- You will start Physical Therapy (PT) and Occupational Therapy (OT) as soon as possible, even on the day of surgery. PT/OT 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 learn how to perform exercises while you are lying in the hospital bed. You will learn safe body mechanics such as:
    - how to get in and out of a bed/chair
    - how to use a walker/cane
    - how to navigate stairs
    - how to wear your brace (if needed)
- PT will help determine your level of safety to be discharged home or to a rehabilitation facility when you are ready to leave the hospital. Staying a week or two in a rehab facility is sometimes necessary until you are safe to return home.

Bowel/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, but if you have difficulty urinating after foley is removed or if you have nausea/vomiting/inability to pass gas/abdominal pain/abdominal distension, let your nurse/surgical team know so that appropriate measures can be taken to resolve the underlining problem.
- Constipation is a common side effect of taking opioids, but can be managed with:
    - Early mobilization (walking)
    - Adequate hydration (water/sports drinks)
    - High fiber diet (oatmeal/beans/legumes/vegetables/dried fruit)
    - Stool softeners (Colace/Dulcolax/MiraLAX/Milk of Magnesium)
    - *If you have kidney disease, do not take 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 can be due to prostate enlargement or medications, such as opioids. Medications may be adjusted, or you may need reinsertion 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 Hospital:

- Based on the goals of physical therapy, you may be discharged home or to a rehabilitation/skilled nursing facility (SNF). If discharged 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 be able to take walks with you. Depending on your surgery and functional status, you may need help with your personal hygiene, getting dressed, and transferring from bed/chairs.
- 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 donning 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 all your care at home.
- *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 home.

Home Instructions

Nutrition:

- Nutrition plays a crucial role in wound healing as it provides the body with the necessary nutrients to repair damaged tissues, fight infections, and promote the growth of new cells. Adequate intake of proteins, vitamins (vitamin A/vitamin C), minerals (zinc/iron), and calories helps support the body's immune response and collagen synthesis, which are vital for efficient wound healing. Proper nutrition can speed up the healing process, reduce the risk of complications, and improve overall outcomes.
- After surgery, you may not feel up to eating food, so we encourage people to drink protein shakes (Ensure 3x/day) or smoothies as a way of increasing their caloric/protein intake. If you have kidney disease, please work with your nephrologist for appropriate nutritional goals regarding protein intake). Diabetic patients should continue good blood sugar control to optimize wound healing and decrease the risk of wound infection.
- Examples:
    - Increasing your protein intake with fish, chicken, turkey, legumes, tofu, egg whites and protein shakes.
    - **Calcium 1500mg daily**. Calcium is found in a variety of foods, both from animal and plant sources such as dairy products (milk, yogurt, cheese) and leafy green vegetables (kale, collard greens, broccoli). Over the counter calcium supplements are recommended for individuals who have difficulty getting enough from their diet.
    - **Vit D3 1000 IU daily**. Vitamin D can be obtained from a few dietary sources (fatty fish like salmon/mackerel/tuna and fortified foods) but the primary way our bodies produce vitamin D is through exposure to sunlight. Over the counter Vit D3 supplements are recommended for individuals who have difficulty getting enough from their diet.
    - **Vit C 1000 mg/day** and **Zinc 25 mg/day** to promote wound healing.

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/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 ordered, the goals of therapy are to teach you the postoperative precautions and help you navigate your home safely.

Bracing:

- Bracing is based on the type of surgery you have.
    - Cervical Collar (C-Collar) at all times x 3-6 weeks.
        - If you were given a c-collar/brace, you will need to wear it as directed. This is usually until your first postop visit in 3 weeks for Cervical Disc Replacement (CDR) and 6 weeks for Anterior Cervical Discectomy and Fusion (ACDF). C-collars are generally worn all the time, including sleep and showering. A special shower c-collar will be provided. You should have received two sets of pads for your c-collar, which can be removed and replaced as needed (wash with mild soap/water and air dry).
        - If you had a cervical disc replacement (CDR), you will not need a c-collar and will be encouraged to move your neck.
    - Back Brace (TLSO) when out of bed x 6-12 weeks.
        - If you were given a back brace (TLSO) you will need to wear it as directed. This is usually until 6-12 weeks. Back brace to be worn when out of bed, while sitting or walking. Do not need to wear brace while sleeping/showering unless otherwise instructed.
    - If you have any questions/concerns regarding your brace (fit, discomfort, maintenance), please contact the clinic.

Restrictions:

- **Avoid any Bending, Lifting or Twisting after surgery for the first 12 weeks.**
    - Avoid household chores such as laundry, vacuuming, loading/unloading dishwasher, labor intensive cooking/cleaning, gardening or yard work.
    - Avoid strenuous activities like golf, tennis, running, cycling, skiing, fishing, any contact sports, horseback/motorcycle riding.
    - Do not lift anything heavier than 10 lbs (~ gallon of milk) until your first postop visit, and possibly longer depending on the procedure.
    - Main activity you should be doing is walking for the first 12 weeks after surgery.
    - Restrictions will be reassessed based on overall clinical progression and evidence of radiographic healing.

Driving:

- Do NOT drive if you have severe pain or on medications that can impact your alertness/coordination (narcotics/muscle relaxers/gabapentin), which affect your ability to focus, react quickly, and handle your vehicle safely.
- Do NOT drive if you are wearing a c-collar.
- Avoid car rides greater than 1 hour for the first 3 months after surgery because of the increased risk of developing a blood clot in your lower extremities/lungs. Please check with your surgeon before planning any trips.

Air Travel:

- Avoid air travel first 3 months after surgery because of the increased risk of developing a blood clot in your lower extremities/lungs. Please check with your surgeon before planning any trips.

Sexual Activity:

- The appropriate timing for resuming sexual activity after spine surgery can vary depending on the type of surgery and your overall health. Engaging in sexual activity that requires movements or positions that cause pain/discomfort should be avoided until you have fully recovered. Therefore, it is essential to prioritize your safety and comfort for the first 3 months after surgery. If you have any questions/concerns about resuming sexual activity after spine surgery, do not hesitate to discuss them with your spine surgeon.

Return to Work:

- The timing for returning to work after surgery can vary depending on several factors:
    - **Type/Extent of Surgery** - The type/extent of surgery plays a significant role in determining when you can return to work. Big/complex surgeries require longer recovery periods than small/simple surgeries.
    - **Healing Time** - Your body needs time to heal after surgery. The length of your recovery will depend on how well your body responds to the surgical procedure.
    - **Type/Demands of Job** - The type/physical demands of your job will influence when you can return to work. Jobs that involve heavy lifting or physical strain require more time off. Jobs that allow for accommodations such as limited hours or modified duties may be able to return to work sooner.
- In general, we recommend taking 6-12 weeks off before returning to work full-time without restrictions. Once again, this will vary based on your surgery, your overall health, and your job requirements. Returning to work too soon can potentially hinder your recovery and ultimately lead to a complication.

Pain Management:

- Experiencing some degree of pain after spine surgery is normal. The type and intensity of pain can vary based on factors such as the type of surgery, surgical approach (open vs MIS), your individual pain threshold, and your body's response to the procedure. It is common to experience pain at the surgical site and in the surrounding areas immediately after surgery.
- Pain is usually managed with medications such as:
    - Acetaminophen (Tylenol)
    - Oxycodone (Oxycontin)
    - Gabapentin (Neurontin)/Pregabalin (Lyrica)
    - Cyclobenzaprine (Flexeril)/Baclofen
- Pain can also be managed with:
    - Heat/Ice
    - Gentle Massage/Light Stretching
    - Short/Frequent Walks
    - Meditation/Breathing Exercises
- Pain gradually decreases as your body heals. Expect pain to be most intense in the first 2-3 weeks following surgery and to gradually improve over 6-12 weeks. As your pain improves, you will be able to taper pain medication.
- While some pain is expected, certain types of pain (such as severe, sudden, or worsening pain) could indicate a potential complication. If you experience any unusual or concerning pain, contact the clinic immediately.
- The most concerning side effects of opioid medications include respiratory depression (slow/shallow breathing), sedation (impaired cognitive function), and tolerance/dependence/addiction (with chronic use/misuse).
    - Common signs of an opioid overdose include slow/shallow breathing, unresponsiveness, bluish lips/fingernails, pinpoint pupils, limp body, gurgling/snoring sounds, vomiting, inability to wake up, slurred speech, and confusion/disorientation.
    - You may be given naloxone (Narcan), which is a medication used to rapidly reverse the effects of an opioid overdose.
    - **If you suspect someone is experiencing an opioid overdose, call emergency services (911) immediately and administer naloxone (Narcan) into the nasal passage.**
- Our team will manage your pain medications from 0-12 weeks postoperatively, depending on the pain medication agreement you signed before surgery. Our clinic is a surgical specialty and not equipped to manage chronic pain, therefore, if you still need narcotic medication after your pain agreement has ended, you must contact your primary care provider or pain management specialist for long-term management/refills.

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs):

- **Do NOT take NSIADs for the first 3 months following your fusion surgery.** NSAIDs work by reducing inflammation, but they can also inhibit the formation of new bone tissue and slow down the bone healing process. Spinal fusion surgery involves the fusion of two or more vertebrae using bone grafts, and the success of this procedure depends on the bone's ability to heal/fuse together. The use of NSAIDs can interfere with this process and potentially increase the risk of a non-union. Examples of NSAIDs include:
    - Aspirin (Excedrin)
    - Celecoxib (Celebrex)
    - Diclofenac (Voltaren)
    - Ibuprofen (Advil/Motrin)
    - Ketorolac (Toradol)
    - Meloxicam (Mobic)
    - Naproxen (Aleve/Midol/Naprosyn)
- Please consult your spine surgeon before resuming any mediations, including NSAIDs.

Wound Care:

- Incision should be completely healed in 2-3 weeks.
- Underlying muscle and soft tissue may take another 6-8 weeks to heal.
- If surgical approach was through the abdomen, it can take up to 6 months to heal.
- Incision can re-open (dehisce) if too much stress is placed on it.
- Incision may initially appear red, swollen, and bruised (improves w/in 2-3 weeks).
- Incision may feel numb, this is normal.
- If worsening pain, redness, swelling, drainage, fever, chills, contact clinic immediately.

Dressings:

- Keep dressings clean, dry, and intact.
- You may shower (dressing is water resistant), cover with plastic/shower protector.
- Do not submerge dressing (no bath/pools/hot tubs).
- Do not remove/change dressings (unless heavily saturated/soiled/wet).
- When changing dressings, wash hands and avoid touching side that will contact incision
- Do not apply any lotions/oils/ointments/home remedies to the incision until healed.
- Drain (record output every 12 Hrs) - it will be removed by Home Health/clinic.
- PICO/Pravena - it will be removed by Home Health or in clinic.
- If worsening pain, redness, swelling, drainage, fever, chills, contact clinic immediately.

Wound Vac (Prevena):

What it is. A small battery-powered pump connected to a sealed dressing over your incision. It applies gentle suction to keep the incision closed, dry, and protected. It runs for 7 days, then shuts off automatically. Do not remove the dressing yourself.

Daily use

- Keep the unit on at all times. A green light means it is working normally.
- Charge the battery nightly (1–2 hours); the unit can run while charging.
- Carry the pump in its case or clipped to your clothing. Keep tubing free of kinks and never let the pump hang from the tubing.
- Do not turn the unit off. If off for more than 1 hour, the dressing may lose its seal.

Showering. Close the tubing clamp, unplug the tubing from the canister, and keep the pump dry outside the shower. Reconnect within 30 minutes and confirm the green light. Do not aim the spray at the dressing. No baths, pools, or hot tubs.

Alarms and lights

- **Blinking yellow (leak):** smooth the dressing edges and the strips around the tubing, confirm the tubing is connected and the clamp is open, then press the alarm button. If the alarm continues over 1 hour, call the office.
- **Blinking red:** charge now.
- **Canister full:** call the office — the canister should not fill on a spine incision and this can signal bleeding.
- **Unit won't restart or dressing fully loose:** call the office the same day. After hours, if the dressing is dry and intact, cover with clean gauze and tape and call in the morning.

Call the office right away for: fever over 101°F or chills; increasing redness, warmth, or swelling; foul odor or cloudy, thick, or green/yellow fluid; bright red blood filling the tubing or canister; incision pain not controlled by your medication; blistering or rash under the adhesive; new numbness, weakness, or bowel/bladder changes (go to the ER if severe).

Removal. The unit shuts off on day 7 and shows therapy complete. Leave the dressing on until your scheduled visit, where we remove it and check the incision. If your visit is more than 2 days after the unit stops, call to adjust. After removal, keep the incision clean and dry — you may shower and pat dry, but no scrubbing, ointments, or soaking until cleared by Dr. Ortega.

Do not: cut, peel, or reposition the dressing; use heating pads or lotions near it; lie on the tubing or pump for long periods; have an MRI with the device attached (X-ray and CT are fine).

Questions or problems: call Dr. Ortega's office during normal hours. Device technical support, 3M/KCI: 1-800-275-4524.

Bone Stimulator

What it is. A prescription device worn over your spinal fusion that delivers a painless, low-level electromagnetic field to help the bone fuse. It works in addition to your brace and activity restrictions, not in place of them.

Getting the device. The device company (EBI, Orthofix, Zimmer Biomet, DJO/Enovis), will contact you to deliver it, usually within 1–2 weeks of surgery, and a representative will show you how to wear it. Start using it the day you receive it. If you have not heard from the company within 2 weeks, call our office.

Daily use

- Wear it every day for the prescribed time (typically 30 minutes to 4 hours depending on the model; the representative will confirm your exact time).
- Center the coil or belt over the fusion level as shown. It may be worn over clothing or under your brace, and you can sit, walk, or do light activity during a session.
- Charge the unit nightly.
- The device records usage. Missed days reduce effectiveness, and insurance may require documented compliance.

Duration. Use it for 6–9 months or until Dr. Ortega confirms on imaging that the fusion is healing. Do not stop early on your own.

Precautions

- Keep it dry — no showering, bathing, or swimming with it on.
- No heating pads over the treatment area during a session.
- Tell us before starting if you have a pacemaker, defibrillator, or other implanted electronic device.
- Remove it for X-rays, CT, and MRI.
- Stop use and call the office if you become pregnant.

Call our office for: skin irritation under the device lasting more than 1–2 days, unusual sensations you believe are device-related, new or worsening pain, numbness, or weakness, or questions about continuing use.

Call the device company (number on the unit) for: a device that will not turn on, charge, or complete a session; error messages or alarms; broken straps, belt, or coil.

Follow-up. Bring the device to your postoperative visits. We will tell you when to stop based on your X-rays or CT.

Nicotine:

- Nicotine can have multiple negative consequences after spinal surgery such as decreased bone healing, decreased blood flow, and increased inflammation, which can lead to wound healing problems, infections, and non-unions and may require revision spinal surgery.
- **You will need to discontinue all nicotine products completely for at least 6 weeks prior to surgery, and one year following surgery.** A urine nicotine screen will be required with labs.
- Nicotine products include:
    - Cigarettes
    - Chewing Tobacco
    - Patches
    - Gum
    - Lozenges
    - E-Cigarettes/Vaping

Red Flags:

- Fever (temperature > 100.0 F), chills, or night sweats.
- Increasing pain, redness, swelling at the incision site.
- Increased drainage that is cloudy, discolored, or foul-smelling at the incision site.
- Chest pain, shortness of breath, or difficulty breathing.
- 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/bladder control that was not there before surgery.
- ***if you are experiencing any of the above symptoms, please contact clinic immediately.**

Frequently Asked Questions (FAQs)

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/back, you will need to take a one-time dose of antibiotics prior to having dental work within the first year following 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 cannot 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 (DVTs

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.

What medications do I need to stop before surgery?

- If you are taking NSAIDs (see page 14 for full list), please stop them at least 7 days before surgery.
- If you are taking long-term anti-coagulants (Aspirin, Clopidogrel, Warfarin, Apixaban, Rivaroxaban, Heparin, Enoxaparin), 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 biologics/antirheumatics (Enbrel, Humira, Methotrexate), confirm with your prescribing physician when it is safe to stop the medication prior to surgery (usually 2 weeks before) and when to restart the medication after surgery (usually 12 weeks after).
- Continue pain medication (Acetaminophen/Tramadol/Norco/Oxycodone) up to the day of surgery and inform perioperative team of medications taken on the day of surgery.
- Stop all herbal supplements/vitamins 2 weeks prior to surgery.
- If you have any questions about what medications that need to be stopped, please contact the clinic at (562) 348-4588 (Long Beach) + (562) 633-3787 (Lakewood).