NORTH COUNTY NEUROSURGERY

Evan Winograd, MD
Neurosurgery & Spine | North County, San Diego
6125 Paseo Del Norte, Suite 140, Carlsbad, CA 92011
P: (442) 273-5056 F: (442) 333-1277 northcountyneuro.com

A Note from Dr. Winograd

You are about to have spine surgery, and I want to tell you something directly: your age is not your limitation — your health is. I have operated on patients who are 75, 80, and older, and they have done remarkably well. Modern spine surgery in older adults is safer than it has ever been. The best surgical outcomes I see often come from patients who are over 65 because they are motivated, they follow instructions carefully, and they bring a lifetime of resilience to their recovery.

This document is comprehensive. I've included information about your medications, your bone health, what happens the day of surgery, and warning signs to watch for. You may think it is a lot of reading, but doing this preparation well is one of the highest-leverage things you can do for a good outcome. This guide is your roadmap. Use it.

Understanding Your Surgery and What It Will Accomplish

Spine surgery in patients over 65 is not about making you an athlete. It is about three things: relieving pain that is limiting your life, restoring your ability to walk and move, and helping you maintain your independence. For patients in your age group, success looks like less pain, better function, and staying out of a nursing home. That is the goal.

Why Surgery Is Recommended

You have been diagnosed with a condition that is causing you nerve compression, instability, or both. Conservative care—physical therapy, injections, activity modification—has either failed to help, or your condition is severe enough that waiting would risk permanent nerve damage. Surgery can relieve the compression, stabilize the spine, and allow nerve healing to begin.

What "Success" Looks Like for Older Adults

Realistic expectations matter. You will likely have less pain and better walking ability. Some nerve symptoms (numbness, mild tingling) may take months or even 6–18 months to fully resolve. Your goal after surgery is to be more independent than you were before, not to return to how you felt at age 40.

Recovery Timeline

Healing takes longer at 65 and beyond. Bone healing typically requires 12–16 weeks for early fusion consolidation, but complete healing can take 6–12 months. Nerve recovery is slowest of all—it can take 6 months to a year or more to see the full benefit of decompression. You will see improvement in function much sooner (weeks to a few months), but be patient with the longer-term improvements.

Hospital Stay

Most major spine surgery requires 1–3 nights in the hospital. Some less invasive procedures can be done as same-day surgery, but your surgeon will determine this. Plan to arrange for someone to stay with you for at least the first 48–72 hours after you go home, whether or not you spent a night in the hospital.

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Pre-Admission Testing (PAT)

You will have an appointment at the hospital before surgery. They will draw blood (labs, CBC, comprehensive metabolic panel, coagulation studies), do an EKG, possibly a chest X-ray if you have cardiac or lung concerns, and you will meet with the anesthesia team. This visit is essential. Tell the anesthesia team about any allergies, previous bad anesthesia experiences, sleep apnea, or concerns about memory. They will review your medications and discuss the morning-of protocol with you.

Your Medications — What to Stop and When

This is critical. Stop the wrong medication too early, and you risk stroke or clot. Stop it too late, and you increase bleeding risk during surgery. Coordinate with your prescribing physician. Our office will guide you, but your primary care doctor and cardiologist must be in the loop if you take cardiac medications or blood thinners.

Blood Thinners (Anticoagulants)

- **DOACs (Eliquis/apixaban, Xarelto/rivaroxaban, Pradaxa/dabigatran, Savaysa/edoxaban):** Hold MORE THAN 72 hours before surgery. Longer holds are acceptable and safer. Do NOT stop without coordinating with your prescribing physician. Many older patients take these for atrial fibrillation or prior stroke/PE. Your cardiologist may need to weigh in.
- **Warfarin/Coumadin:** Must be managed in coordination with your prescribing physician and cardiologist. Hold typically 5 days before surgery; you will need an INR check to confirm it is therapeutic. A bridging decision (starting a short-acting anticoagulant) will be made by your cardiologist or PCP, not by us.

Aspirin and Antiplatelet Medications

Dr. Winograd's specific protocol:

- **ASA 81 mg (low-dose aspirin):** STAY on aspirin 81 mg through surgery unless otherwise discussed with Dr. Winograd. The cardioprotective benefit of low-dose aspirin typically outweighs the bleeding risk. Older cardiac patients benefit from continuing it.
- **ASA 325 mg (regular-strength aspirin):** Switch DOWN to ASA 81 mg for the full week before surgery.
- **OPTIMAL protocol (if your cardiologist/PCP agrees):** Hold all aspirin for 1 week BEFORE and 1 week AFTER surgery. This requires coordination with your prescribing physician.
- **P2Y12 inhibitors (Plavix/clopidogrel, Effient/prasugrel, Brilinta/ticagrelor):** Hold 7 days before surgery (Plavix or Effient) or 5 days (Brilinta). Cardiology clearance is required FIRST. Do not stop these without talking to your cardiologist.

NEVER stop cardiac medications without physician approval. If you have any questions, call our office.

NSAIDs (Nonsteroidal Anti-inflammatory Drugs)

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- **Stop:** ibuprofen (Advil, Motrin), naproxen (Aleve), meloxicam (Mobic), diclofenac (Voltaren), celecoxib (Celebrex), and all other NSAIDs 7 days before surgery.
- **OK to take:** Acetaminophen (Tylenol) for pain or fever. This is safe.

GLP-1 Agonists (For Diabetes or Weight Loss)

Medications: Ozempic/Wegovy (semaglutide), Mounjaro (tirzepatide), Victoza (liraglutide), Trulicity (dulaglutide), Byetta/Bydureon (exenatide)

- **Weekly formulations:** Hold 1 WEEK before surgery (per American Society of Anesthesiologists 2023 guidance). These have slower clearance.
- **Daily formulations:** Hold 1 DAY before surgery.
- **Important for aspiration risk:** Consider a clear-liquid diet for the 24 hours before surgery if you take ANY GLP-1 medication. These slow gastric emptying and increase aspiration risk under anesthesia.

Morning-of Surgery Medications

The anesthesia team will review your complete medication list at your pre-op visit and tell you EXACTLY which medications to take the morning of surgery with a small sip of water. This will likely be most of your chronic medications (blood pressure meds, thyroid, etc.) but NOT the ones listed above. Follow their specific guidance. Bring a complete written medication list (name, dose, frequency) to your appointment.

Fasting (Nothing by Mouth — NPO)

These are American Society of Anesthesiologists (ASA) 2017 guidelines:

- **Solid foods:** Nothing to eat for 6–8 hours before surgery. This is a standard practice to reduce aspiration risk.
- **Clear liquids:** Water, clear broth, black coffee or tea without cream, apple juice, sports drinks—these are OK until 2 hours before your surgery time. DO NOT come to surgery dehydrated.
- **Gum, mints, candy:** Nothing by mouth includes these.
- **For patients on GLP-1 medications:** Consider a clear-liquid diet for the FULL 24 hours before surgery (not just the night before), since these medications slow stomach emptying.

Bone Health Optimization Before Surgery

This section is especially important for patients 65 and older. Osteoporosis affects your fusion rates dramatically. Stronger bone heals better and holds hardware more securely.

Get a Bone Density Scan

If you have never had a DEXA scan or it has been more than 2 years, ask your PCP to order one. You need to know your bone density before spine surgery.

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Calcium Supplementation

- **Daily target:** 1200 mg of elemental calcium per day in divided doses.
- **Important:** Your body cannot absorb more than 500 mg of calcium at one time. If you take 1000 mg of a supplement, split it: 500 mg in the morning and 500 mg in the evening (or with different meals).
- **Sources:** Calcium citrate supplements, dairy products, leafy greens. If you have kidney disease, check with your nephrologist on safe calcium doses.

Vitamin D

- **Daily target:** 1000–2000 IU of vitamin D3 per day.
- **Why:** Many older adults, especially those in San Diego year-round, are still deficient. Vitamin D is essential for calcium absorption and bone remodeling.
- **Checking levels:** If you have never had a vitamin D level checked, ask your PCP. If it is low, supplementation before surgery helps healing.

Bisphosphonates (Fosamax, Actonel, Reclast)

If you take a bisphosphonate for osteoporosis, discuss timing with Dr. Winograd at your pre-op visit. Bisphosphonates suppress bone turnover, which can affect the bone remodeling process around spinal hardware. The decision to continue, hold, or resume after surgery is individualized.

Anabolic Agents (Forteo, Tymlos)

Some patients with severe osteoporosis are candidates for anabolic bone-building medications starting shortly after spine fusion. This can significantly improve fusion rates. Ask Dr. Winograd at your pre-op visit if this applies to you.

Prehabilitation — Getting Stronger Before Surgery

Research consistently shows that patients who are stronger going INTO surgery recover faster coming OUT. The 4 weeks before your surgery are crucial.

Walking

Aim for 20–30 minutes of daily walking in the 4 weeks before surgery. Even gentle walking improves cardiovascular reserve, reduces post-operative complications, and gets you accustomed to controlled movement. If you cannot walk continuously, walking in intervals (5 minutes, rest, 5 minutes) is fine.

Core Activation

Do gentle abdominal bracing exercises—NOT sit-ups or crunches. These are movements you will be doing in physical therapy after surgery, so starting now helps. Ask our office or your PT for a simple routine.

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Lower-Extremity Strength

Chair squats, heel raises, and step-ups are excellent, especially if you have balance or fall concerns. Leg strength is critical for safe walking and falling prevention after surgery.

Breathing Exercises

Deep diaphragmatic breathing 3 times daily reduces post-operative pulmonary complications. Breathe in slowly through your nose for a count of 4, hold for a count of 4, and exhale slowly through your mouth. Do this 10 times, 3 times per day.

If Mobility Is Very Limited

Pool walking, stationary bike, or recumbent cycling are all acceptable. If your pain is severe, ask your PT or our office for guidance. Do not stop activity because of pain if movement helps; only stop if you are making your condition worse.

Home Setup — Safety First

Fall prevention is critical. Many older adults are at fall risk both before and after spine surgery. Preparing your home now prevents injuries later.

Remove Hazards

- **Throw rugs and loose cords:** Trip hazards. Remove them from all walkways.
- **Clutter:** Keep hallways and pathways clear.
- **Stairs:** After lumbar spine surgery especially, you will want to minimize stair use for the first 1–2 weeks. If you must live with stairs, prepare a temporary recovery area on the main floor if possible.

Install Grab Bars

- **Bathroom:** Install grab bars in the shower and near the toilet NOW, before surgery. Slips in the bathroom are the leading cause of falls in older adults.
- **Hallways:** If you are very unsteady, hallway rails can be added.

Furniture and Fixtures

- **Elevated toilet seat:** Available at any pharmacy for $30–50. This reduces the effort to sit down and stand up, which is critical after spinal surgery.
- **Shower chair or tub bench:** You should not be in a shower stall standing for days after surgery. A chair makes this possible safely.
- **Long-handled grabber/reacher:** For lumbar surgery especially, you cannot bend. A reacher helps you pick things up without bending or twisting.
- **Raised bed height:** If your bed is very low, getting in and out is difficult post-op. A wedge or bed risers ($20–40 at hardware stores) can help.

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Meal Preparation

Prepare and freeze casseroles, soups, and other meals ahead. The first week after surgery, cooking is difficult. Having meals ready means you can focus on healing.

Medication Organization

Get a weekly pill organizer (or a daily one if you take many medications). Label each compartment by day and time. This reduces confusion post-op and makes sure you do not miss doses.

Your Caregiver — Absolutely Essential

A responsible adult must drive you home from the hospital AND stay with you for a minimum of 48–72 hours for spine procedures (longer for cranial procedures). This is not optional. Under anesthesia, you cannot think clearly or move safely. You need another adult in your home.

What Your Caregiver Must Be Able to Do

- **Drive:** Bring you home safely. Ride-share services (Uber, Lyft) alone are NOT acceptable—you need a known, trusted adult who stays with you.
- **Stay nearby:** Available in your home for 48–72 hours. Not just nearby—actually in your house in case you fall or have an emergency.
- **Manage medications:** Help you take medications on time, especially if you are confused or unsteady.
- **Call for help:** Be able to reach our office or call 911 if concerns arise. A responsible family member is ideal.
- **Reachable:** Be reachable by phone at all times during the first week.
- **Attend follow-up visits:** Drive you to your appointments with Dr. Winograd.

Extended Support

Consider arranging help beyond the first 48–72 hours. If you live alone, professional home health aides, family members taking shifts, or friends helping with meals and light housework for the first 2 weeks improves outcomes significantly. Do this now, before surgery.

Skin Preparation

Surgical site infections are rare but serious. Proper skin preparation reduces risk.

Night Before Surgery

- **Shower with CHG:** Use chlorhexidine gluconate (CHG) soap or a CHG wipe kit provided by the hospital. You will receive these at Pre-Admission Testing. Clean your entire body, paying special attention to the area where surgery will be.

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- **After CHG:** Do NOT apply lotion, deodorant, perfume, powder, or oil after the CHG.

Morning of Surgery

Repeat the CHG shower or wipe the surgical area with a fresh CHG wipe. Again, no lotion, deodorant, or powder after.

What to Bring to the Hospital

- **Photo ID and insurance card:** Required for registration and hospital billing.
- **Complete medication list:** Write down (or print) the name, dose, and frequency of every medication you take. Include supplements and over-the-counter meds.
- **PAT results:** If you received labs or EKG results in paper form at Pre-Admission Testing, bring them.
- **Loose, comfortable clothes:** For discharge. Nothing with tight waistbands or zippers. Slip-on shoes with closed toe (no sandals—you may have trouble bending to put them on).
- **CPAP machine:** If you use one, bring it labeled with your name. Tell the surgical team.
- **Hearing aids, glasses, dentures:** These must come off for surgery. Bring a labeled container or bag so you know where they are.
- **Do NOT bring:** Jewelry, watches, valuables, or large amounts of cash. Do not wear nail polish or artificial nails (interferes with oxygen monitors). Do not wear makeup.

Arrival at the Hospital

Arrive 2 hours before your scheduled surgery time, unless the hospital has given you different instructions. Follow the hospital's specific arrival time. Plan to be in the pre-op area for 1–2 hours before surgery begins.

Cognitive and Emotional Preparation

Older adults sometimes have specific worries about surgery that younger patients do not. Let's address them directly.

Post-Operative Cognitive Dysfunction (POCD)

You may have heard about older adults becoming confused after surgery. This is real, but it is almost always temporary. After anesthesia, some older adults experience mild confusion, memory fogginess, or difficulty concentrating for days to weeks. This is different from dementia—it resolves. To minimize this risk: tell the anesthesia team if you have any memory concerns, get adequate sleep the night before, stay hydrated, and be patient with yourself. Confusion usually clears within a week or two.

Fear of Dependence

You have been independent your whole life, and the thought of needing help is frightening. Let me be direct: needing help for 2–4 weeks after spine surgery is temporary and does not mean you are losing

independence. It means you are healing. Most patients return to baseline function within weeks to months. The GOAL of this surgery is to INCREASE your independence. Accept help graciously for these few weeks so you can get back to doing what you want for years to come.

Fear That Surgery Will Not Help

Spine surgery works. If you have been selected for surgery, it is because you have a condition that surgery can fix. Nerve compression can be relieved. Instability can be stabilized. Pain can decrease significantly. Trust the process, follow the guidelines, and do your rehab. You should see improvement within weeks and maximal improvement within 3–6 months.

Warning Signs — If You Experience These Before Surgery, Call Our Office Immediately

These signs mean your surgery may need to be postponed or rescheduled.

- **New severe weakness in your arms or legs**
- **Loss of bladder or bowel control (new)**
- **Rapidly worsening pain that does not respond to your current medications**
- **New fever or illness in the 2 weeks before surgery**
- **Cold, flu, COVID, or any new infection (respiratory, urinary, etc.)**
- **Any significant change in your medications from another provider**
- **Development of severe swelling in your legs or feet**

These warning signs suggest you should not have surgery on your scheduled date. Call immediately so we can discuss next steps.

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Quick Reference Card

The most important information at a glance. Tear this page out or take a photo and keep it accessible after you go home.

Medication Hold Timeline

- **NSAIDs (ibuprofen, etc.):** stop 7 days before
- **Eliquis / Xarelto / Pradaxa:** stop >72 hours before (coordinate with your cardiologist)
- **Warfarin:** hold per cardiologist instructions; INR check needed
- **GLP-1 weekly (Ozempic, Wegovy):** stop 1 week before
- **GLP-1 daily:** stop 1 day before
- **ASA 81 mg:** CONTINUE unless Dr. Winograd says otherwise
- **ASA 325 mg:** switch down to 81 mg for 1 week before

Fasting (NPO)

- **Solid food:** nothing 6–8 hours before surgery
- **Clear liquids:** OK until 2 hours before surgery
- **GLP-1 patients:** consider clear-liquid diet for 24 hours before

Home Setup Checklist

- **Remove:** throw rugs, loose cords
- **Install:** grab bars in shower and near toilet
- **Prepare:** elevated toilet seat, shower chair, reacher
- **Arrange:** caregiver for 48–72 hours minimum
- **Prepare:** frozen meals for first week
- **Organize:** medications in a weekly pill organizer

Arrival

Arrive 2 hours before your scheduled surgery time (or follow hospital instructions if different)

What to Bring

- **ID + insurance card**
- **Medication list** (name, dose, frequency)
- **Loose comfortable clothes** for discharge
- **CPAP if applicable**
- **Glasses / hearing aids** in labeled containers
- **Do NOT bring:** valuables, jewelry, nail polish

Call Us Before Surgery If:

- **New weakness** in arms/legs
- **Loss of bowel/bladder** control
- **New fever, illness,** or infection
- **Medication changes** from another provider

Contact

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Evidence Base — Clinical Guidelines

The following guidelines informed the protocols in this document:

- **ASA 2017:** American Society of Anesthesiologists (ASA). Practice Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration: Application to Healthy Patients Undergoing Elective Procedures. Anesthesiology. 2017;126(3):376–393.
- **ASA 2023:** American Society of Anesthesiologists (ASA). Guidance on the Perioperative Management of Patients Receiving GLP-1 Receptor Agonist Medications. Consensus-Based Guidance. 2023.
- **NASS 2020:** North American Spine Society (NASS). Perioperative Spine Care Guidelines. Burr Ridge, IL: NASS; 2020.
- **AAOS 2021:** American Academy of Orthopaedic Surgeons (AAOS). Management of Hip Fractures in the Elderly — Evidence-Based Clinical Practice Guideline. Rosemont, IL: AAOS; 2021.
- **ACS NSQIP 2019:** American College of Surgeons NSQIP. Optimal Resources for Geriatric Surgery: Standards and Verified Programs. Bull Am Coll Surg. 2019;104(3):20–29.
- **AAPM&R 2020:** American Academy of Physical Medicine and Rehabilitation. Prehabilitation and Postoperative Rehabilitation in Spine Surgery: Guidelines. PM&R. 2020;12(S2):S56–S65.
- **CNS/AANS 2009:** Congress of Neurological Surgeons / American Association of Neurological Surgeons Joint Section on Disorders of the Spine and Peripheral Nerves. Clinical guidelines for the management of degenerative disease of the cervical and lumbar spine. Neurosurgery. 2009;64(6 Suppl).
- **CHEST 2012:** Guyatt GH, et al. Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest. 2012;141(2 Suppl):7S–47S.