Laminoplasty Surgery

Dear Patient,

Thank you for entrusting me with your care. Please read through the following packet of information. I think you will find it helpful as you begin your recovery. It was carefully arranged to provide useful postoperative instructions and answers to many frequently asked questions. If any questions or concerns arise, please do not hesitate to call the office.

Sincerely,

John A. Buza III, MD, MS Orthopedic Spine Surgeon

About your surgery

What to expect

YOUR CERVICAL SPINE

The cervical spine ("neck") is made up of seven bones called vertebrae. These vertebrae are separated by discs, which act as "shock absorbers" for the spine. The nerve roots that go into your arms, as well as the spinal cord, are encased within this bony framework of the spine.

Nerve roots and the spinal cord can be "pinched" by herniated discs or by bone spurs which arise from arthritis ("wear and tear", or "degeneration") of the spine. Pinching of nerve roots can result in pain, weakness, or numbness/ tingling of your neck, shoulder, upper back, are, or fingers. Pinching of the spinal cord can additionally result in difficulty with walking or coordination.

In general, the goal of the surgery is to relieve the compression on your nerves by creating more space for them. Plates, rods, and/or screws may be used in some circumstances as discussed with you by Dr. Buza.

INCISION

An incision will be made in the back of the neck in order to obtain access to the spine. There will usually be no stitches to remove, because all of the stitches will be placed inside.

Intervertebral disc

(Left) Side view of a healthy cervical vertebra and disk. (Right) A disk that has degenerated and collapsed.

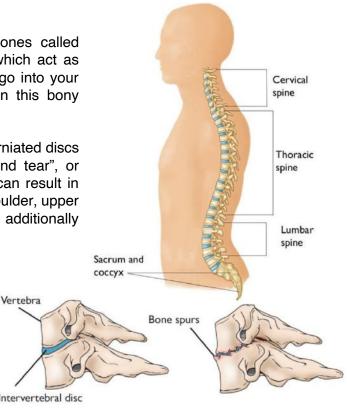
There will be a small drain in your wound that is placed during surgery to prevent blood clots from pooling in the wound. Generally, it is removed on the first day or two after surgery, depending on how much comes out of it.

BRACE (COLLAR)

A soft collar is typically worn for 2 weeks after surgery, and then removed. After you see Dr. Buza at your 2 week appointment, the collar is typically removed.

RECOVERY

As you prepare yourself mentally to undergo spinal surgery, you also need to prepare yourself for the recovery period that will follow your operation. While the surgery entails work on the part of the surgeon, after that, the majority of the work is in your hands. To ensure a smooth and healthy recovery, it is important that, as a patient, you closely follow the set of instructions that Dr. Buza gives you.



2 - 4 WEEKS BEFORE SURGERY		
	See your primary care doctor as scheduled	
	Complete lab work	
	 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, apixaban, rivaroxaban etc.)- discuss with your primary care doctor about when to stop before surgery 	
	Increase protein intake (Additional Protein Shakes, see Nutrition info below)	
2 D	AYS BEFORE SURGERY	
	Shower with CHG/Hibiclens soap (available at drug store)- shower 2 nights before, 1 night before, and the morning of surgery	
	Complete Home Antigen COVID test- to be done within 72 hours of surgery.	
1 DAY BEFORE SURGERY		
	Prepare a travel bag of items that you will need during your hospital stay	
	Advance Directive, Insurance card and either Driver's License or Passport	
	Education packet from the office (Bring this packet with you!)	
	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 constipation	
	Shower with CHG/Hibiclens soap before bed	
	Nothing to eat or drink after midnight	
THE MORNING OF SURGERY		
	Shower with CHG/Hibiclens soap in the morning	
	Take any essential medications with a small sip of water (discussed with PREP team)	
	Do not eat or drink anything	

PREPARING FOR SURGERY (2-4 weeks before surgery)

1. SEE YOUR PRIMARY CARE DOCTOR- VERY IMPORTANT!

- Before your surgery, it is necessary to have a <u>preoperative medical clearance</u> which includes at minimum blood work, urine tests and EKG.
- If it has been some time since you have seen your primary physician and you have a lot of medical problems, you should see your medical doctor ASAP before your surgery date.

2. STOP TAKING CERTAIN MEDICATIONS

Medications that increase the chances that you will bleed excessively after surgery:

- **Aspirin:** Ideally stop 2 weeks before surgery, unless otherwise instructed by your cardiologist
- Ibuprofen (Advil, Motrin), Naproxen (Aleve), Meloxicam, Celebrex: Stop 7 days before surgery
- Coumadin Discuss with the prescriber as to the best time to stop this medication before surgery. Usually 5 days before and 2 days after surgery.
- **Plavix** Discuss with the prescriber as to the best time to stop this medication before surgery. Usually 7 days before and 3 days after surgery.



- **Vitamins:** You may take normal Vitamins which contain 100% of your Daily Value, but do not take any "mega-doses" of vitamins for 7 days prior to surgery.
- Herbal Preparations: All herbal supplements, & many over the counter (OTC) supplements, should be discontinued at least <u>7 days prior to surgery</u>.
 Examples: Chondroitin, Co Q10, Danshen, Feverfew, Fish Oil, Garlic, Ginkgo Biloba, Ginseng, Turmeric, Vitamin E

3. STOP SMOKING OR USING NICOTINE PRODUCTS

IF you use any form of nicotine containing products (which include chewing tobacco, vaporizers/vape pens, e-cigarettes, nicotine patches, etc.) you will need to be completely nicotine-free **at LEAST 2 months before surgery**. Patients who smoke have a significantly higher rate of failure of the surgery and especially fusion failure. If you are trying to quit smoking, please note that all nicotine replacement systems (as mentioned above) have the same effect and cannot be used.

4. PLAN FOR YOUR RECOVERY AT HOME AHEAD OF TIME

Please see the separate attached home recovery guide

5. OPTIMIZE YOUR NUTRITION

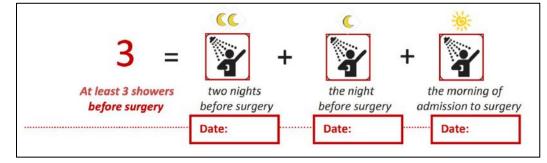
You need to increase your calorie and protein intake before surgery. Please see the attached nutrition guide

TWO DAYS BEFORE SURGERY - Chlorhexidine (CHG) soap You need to buy from local drugstore (CVS / Duane Reade) or on Amazon.com

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You should shower with CHG soap a minimum of three times before surgery



Instructions:

- 1. Rinse your body with warm water.
- 2. Wash your hair with regular shampoo. Rinse your hair with water. Use CHG soap instead of your regular shampoo to wash your hair. Rinse your hair with water.
- 3. Wet a clean sponge. Turn off the water. Apply CHG liberally.
- 4. Firmly massage all areas: neck, arms, chest, back, abdomen, hips, groin, genitals (external only) and buttocks. Clean your legs and feet and between your fingers and toes. Pay special attention to the site of your surgery and all surrounding skin. Ask for help to clean your back.
- 5. Lather again before rinsing.
- 6. Turn on the water and rinse CHG off your body.
- 7. Dry off with a clean towel. Don't apply lotions or powders.
- 8. Use clean clothes and freshly laundered bed linens

Important reminders:

- Do not use any other soaps or body wash when using CHG. Other soaps can block the CHG benefits. After showering, do not apply lotion, cream, powder, deodorant, or hair conditioner.
- Do not shave or remove body hair. Facial shaving is permitted.
- CHG is safe to use on minor wounds, rashes, burns, and over staples and stitches.
- Allergic reactions are rare but may occur. If you have an allergic reaction, stop using CHG and call your doctor if you have a skin irritation.
- If you are allergic to CHG, please follow the bathing instructions above using an over-the-counter regular soap instead of CHG

ONE DAY BEFORE SURGERY

1. Shower with CHG/Hibiclens Soap before bed

2. Diet Recommendations:

- Eat small light meals the day before surgery
- Stop eating or drinking after midnight

3. Remove any nail polish from the thumb, index, and middle fingers on each hand.

4. Please pack and bring:

- Medication List: Bring an updated list of medications (include the dose and frequency)
- Advanced Directive or Living Will if one is available
- Insurance cards and a government issued ID (such as a driver license, passport)
- Education packet (Bring this packet with you!)
- 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, 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.
- Button-down shirt or loose T-shirt and loose elastic pants
- Front wheel walker, well-marked with your name

5. 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
- Contact lenses
- Jewelry and accessories
- Tobacco products and accessories, the hospital campus is smoke and tobacco-free.



DAY OF SURGERY

AT HOME THE MORNING OF SURGERY

- Shower with CHG/Hibiclens soap the morning of surgery
- If you take medications in the morning, you may take them with water.
- Avoid wearing lotion or cosmetics, especially mascara.
- Wear clean, loose-fitting clothing to the hospital (i.e. sweatshirt/pants).
- No jewelry
- 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.

WHEN DO I HAVE TO GO TO HOSPITAL?

On the day of your surgery, you will be asked to arrive approximately 2 hours before the time of your surgery. <u>You will receive a call the day before surgery instructing you on when to arrive at the hospital.</u>

WHERE TO GO THE DAY OF SURGERY?

56-45 Main Street Flushing, New York 11355 Main Lobby Entrance

For directions: https://www.nyp.org/queens/directions

WHERE CAN I PARK?

Parking is available 24 hours a day in the pay parking lot on Booth Memorial Avenue between Main Street and 141 Street. This is a self-parking lot, but there are attendants who may valet your car (at no extra charge) if the lot begins to fill up with cars. Unfortunately, there is no parking validation, and you will have to pay up to 20 dollars/day for parking.

CAN A FAMILY MEMBER COME WITH ME?

Yes, one family member can come in with you into the preoperative holding area. <u>If you live within 1 hour</u> of the hospital, I recommend the family member go home during the operation. It is more comfortable to wait at home, and there is a very large team taking care of you during the operation.

I will call them immediately after the surgery and they can return as instructed to visit you after surgery.







Your Hospital Stay

THE EVENING AFTER SURGERY:



After surgery, you will most likely be admitted to a double patient room. If you would like a private room, please call Guest Services at 718-670-2270. Be mindful that private rooms have additional costs that are paid out of pocket. You can inquire about pricing when you call. If you do not get outstanding care from anyone or are displeased with anything, please let the charge nurse know right away and let Dr. Buza know when he makes rounds. This will help to make it right for you, as well as future patients.

YOU WILL WAKE UP FROM SURGERY WITH

- An intravenous (IV) in your hand or arm in order for medication to be administered.
- Oxygen tubing in your nose
- Drain from your incision (this collects extra fluid, and will be removed after 1-2 days)
- (Foley) Urinary catheter to collect urine
- Sequential Compression Devices (SCDs), which are plastic sleeves on your legs that pump up and down to improve blood flow and prevent blood clots.

DIET

- You will be given liquids at first, then progress to solid food when you tolerate the liquid well.
- It is very common to have a temporary sore throat after surgery, this will improve

ACTIVITY

You will participate in physical therapy as early as the first day after surgery. This is extremely important. Getting out of bed is good for your lungs; it prevents blood clots form forming in your legs, and speeds your recovery. **The only physical therapy you should do is walking.** No strengthening or stretching is necessary – these may actually be harmful unless prescribed to you later at an appropriate time by Dr. Buza. Some people will need to use a walker during their initial recovery period, others may not.

It is important to avoid using your arms to pull yourself as this may cause the incision to open.

PAIN MEDICATIONS

A combination of pain pills will be given before surgery to help minimize pain. After surgery, pain pills will be given to you. Once a good regimen is found, you will be discharged on that regimen for home use.

GOING HOME

Your length of stay in the hospital depends on many factors, including your general medical condition and the severity of your spine problem. Most patients are typically in the hospital overnight, but many are able to go home same day.

You can go home when:

- 1. you are taking oral pain pills
- 2. you can eat and drink enough to sustain yourself (Don't worry most people will not feel like eating and drinking too much after surgery, and that is OK)
- 3. you are able to get out of bed and walk around. Having a bowel movement is not necessary before going home.

Some patients may need to go to a rehabilitation facility first before going home.

Back at Home After Surgery

WOUND CARE AND SHOWERING

- First 7 days: Keep your dressing clean and dry
 - If you shower, you may use either of the following:
 - 1. Medical tape and saran wrap
 - Cover the dressing with Saran wrap or freezer bag
 - Use medical tape to tightly secure the edges to prevent water entry.
 - Medical tape can be purchased at any local drugstore (Walgreens, RiteAid, etc.).
 - 2. Aquaguard (purchased on Amazon)



Leave this dressing clean and dry for first 7 days after surgery



*If dressing accidentally becomes wet in shower, that is OK, just remove the white bandage and leave it open to air

- Day 7 Remove the white bandage dressing (leave the glue and mesh on underneath)
- After 7 days- Leave the wound open to air
 - You can shower and get the area wet. let gentle soap and water to run over the incision. Do not scrub the incision, and please pat dry with a towel.
 - If the wound is dry, no further dressings are needed and the incision can be left open to air. Occasionally your incision may bleed and your dressing may get saturated with blood, this is okay. The dressing can be changed to a new, clean dressing.
 - Swelling and redness around the incision is normal for the first few weeks after the surgery
 - Do NOT apply any lotions or creams to the incision



NO BENDING, LIFTING, OR TWISTING

Follow these restrictions for the first 6 weeks after surgery. Reposition frequently from sitting to standing to walking during the day.

- Walk as much as possible!
- Remember, No BLT!
 - o Bending Avoid bending. No squatting if you had surgery that extends to the low back
 - Lifting No lifting over 10 pounds.
 - Twisting Avoid twisting motions. Always turn your entire body in the same direction.

Do not use your arms to pull yourself up. This could cause your incision to pull apart.

SLEEPING

- You may sleep in whatever position you want to (on either side is fine)
- Some find that sleeping with the head of the bed up at 30 degrees (3-4 pillows) helps reduce swelling
- You may also sleep in recliner chair
- After swelling decreases (5-7 days) you may return to sleeping flat

COLLAR

A soft collar is worn for the first 2 weeks after surgery, but may be removed to sleep and daily so that you can bend your neck gently.

WALKING

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.

DIET

Avoid spicy and greasy foods for the first 2 days after surgery. After that, eat whatever you like. You may not feel like eating too much for a few days. Food high in fiber (fruits and vegetables) are good in that they can help reduce constipation. Drink plenty of fluids.

PRESCRIBED MEDICATIONS AND PAIN CONTROL

- Oxycodone (Narcotic Pain Medication) May cause constipation, nausea, itching, and excessive drowsiness. Take over the counter Benadryl (25-50mg) to reduce itching. Narcotic pain medications often cause drowsiness and it is against the law to operate a vehicle while taking these medications.
- **Zofran/Ondansetron (Anti-nausea medication):** Nausea may be related to either anesthesia or the narcotic pain medication. You may take this medication as necessary.
- Miralax (Stool Softener) Available over the counter at your local pharmacy and should be taken while you are taking narcotic pain medication to avoid constipation. You should stop taking these medications if you develop diarrhea.

If you need refills on your prescriptions, please contact our office 2-3 days before you are out of medications so we have sufficient time to process your request.

As your pain improves, try to increase the time between taking pain pills so that you are taking less and less over time. The goal is to try to get you off of the medications by 2-3 weeks or earlier, if possible. Some people may need medications for longer than 4-6 weeks, and that's OK. If you find that your pain is really mild, try taking plain extra strength Tylenol instead.

You should also avoid anti-inflammatories (NSAIDS) for <u>for at least 3 months after your surgery</u>, or until your surgeon gives you the ok to start taking them again. (NSAIDs: Ibuprofen (Motrin, Advil), Naproxen, Naprosyn (Aleve), Meloxicam (Mobic), Celebrex, Diclofenac, etc...) These medicines can prevent proper healing of the fusion. If you have any questions about whether you can take a medication or not, call the office.

PHYSICAL THERAPY

At your 6-week follow-up appointment in the clinic, you will be given a prescription for outpatient physical therapy, depending on how well you have recovered so far. You may go to the physical therapist of your choice. Until that time, focus on walking.

DRIVING

No driving until you are off of all narcotic/sedative medications AND can move well enough to be safe behind the wheel, this is <u>usually after 4-6 weeks from surgery</u>. Check with Dr. Buza at your 6 week follow up visit when you can return to driving.

RETURN TO WORK

Naturally, you will feel tired and weak after surgery. You will begin to feel more like yourself after 2 to 3 weeks and improve over the following weeks. You should tell your employer you will be out of work for approximately 8 to 12 weeks but may be able to return earlier than that.

SMOKING

It is important to avoid all types of nicotine *for at least 3 months after your surgery*, as this can lead to future complications. (Ex: cigarettes, smokeless tobacco, e-cigarettes, nicotine patches or gum)

CONSTIPATION AND BLOATING

A common side effect of narcotic pain medication is constipation.

- If you are taking pain medications, take **Miralax** as prescribed to prevent constipation
- Be sure to drink 6-8 glasses of water per day
- Eat plenty of fresh fruits & vegetables to prevent constipation. Brown rice, legumes/beans, high fiber cereal, oatmeal, granola, and whole grain bread are also good options.
- If you have not had a bowel movement in 3 or more days, please call your surgeons office. You may need to use a fleets enema or suppository (which are available over the counter) so that you can have a bowel movement.

PAIN AND WEAKNESS

Back pain and muscle spasms are normal after a spine surgery. This usually gets better over the next few weeks. Numbness, tingling and weakness that you had before surgery may take time to improve. If you develop significant new weakness after you get home, you should call the office: <u>866-670-6824</u> or go to the Emergency Room.

Normal Experiences After Surgery

- **Pain:** Surgery hurts. The first 72 hours are the worst. It does get better.
- Redness: A small amount around the sutures is normal. If it worsens or spreads, contact us.
- Drainage: A small amount is normal for 1-2 weeks. If drainage beyond this time, contact the office.
- **Fever:** Low grade fevers (Less than 101.5°F) may occur during the first week after surgery.

FOLLOW UP

Call Dr. Buza's staff at <u>866-670-6824</u> within the first few days after you get home. State that you had surgery and need two-week follow up appointment.

QUESTIONS

Feel free to call Dr. Buza's office with any questions <u>866-670-6824</u>. During business hours, you will be connected to Dr. Buza's staff who reports questions or issues to Dr. Buza.

NOTIFY US IMMEDIATELY FOR ANY OF THE FOLLOWING

If any signs of infection are observed while changing the dressing, call your doctor.

- These signs include
 - Fever a body temperature greater than 101.5°F (38°C)
 - Significant drainage from the incision(s)
 - Opening of the incision(s), and
 - Increasing redness or warmth around the incision(s)

In addition, call Dr. Buza's office if you experience chills, nausea/vomiting, or suffer any type of trauma (e.g., a fall, automobile accident).

EMERGENCY ROOM USE

If you have trouble breathing, chest pain, or significant NEW weakness after your surgery, please go to a NYP Emergency Room immediately. If you have any other problems related to your surgery, <u>PLEASE</u> <u>CALL OUR OFFICE at (866-670-6824) BEFORE GOING TO THE EMERGENCY ROOM</u>, as we can likely address your problem or get you an appointment scheduled and save you a trip to the ER.



COMMON QUESTIONS AFTER SPINE SURGERY

1. 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.

2. 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 (8 mg or 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).

3. 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.

4. 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.

5. 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.

7. Can I drive a car?

You should not drive while taking narcotics. You should not drive while using a collar. If you can remove the collar and keep your neck still while driving, it is okay to drive. You need to make sure your mirrors are adjusted accordingly so you can drive safely. Do not drive unless you feel 100% safe to do so.

8. Why do I have pain in between my shoulders/muscle spasms?

This is normal for several months after this procedure due to the muscle dissection during surgery.

9. When can I lift weights?

Please avoid all overhead lifting for the first 3 months after surgery. You can lift light weights close to your body. Please keep the neck in a neutral position.

10. My pre-operative pain has come back. What happened?

Around 20% of patients whose pain went away with surgery will get the pain again in the first few weeks to months after surgery. This is due to micro motion of the bone which can irritate the nerves. This pain will resolve when the bone has fused.

11. 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.
- 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 Tylenol or Acetaminophen up to the day of surgery.
- Stop all herbal supplement and vitamins 2 weeks prior to surgery

k	Spine: Am I ready to go home?
	Target discharge Date:
	My pain is managed on pain pills.
	I am getting out of bed independently.
	I am walking more than 50ft (with a walker if needed).
	I can climb the stairs (if there are stairs at home).
	I can remove the brace (with help if needed).
	I have had my discharge X-ray.
3	I am ready to go home!