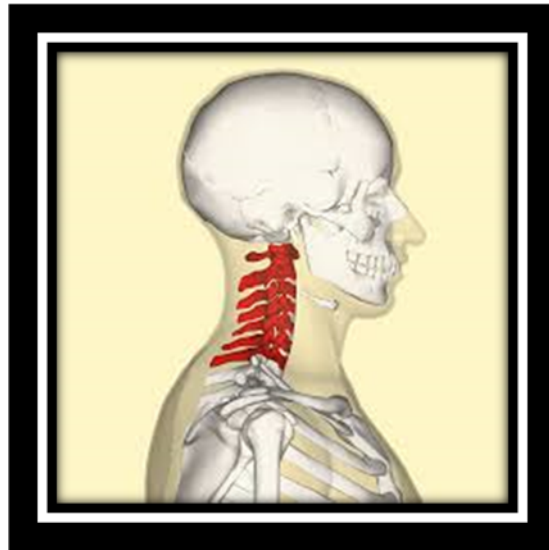


Kaiser Permanente

Spine Center

Surgery of the Cervical Spine (Neck)
Patient Pre-Operative Packet



Detailing your road to recovery

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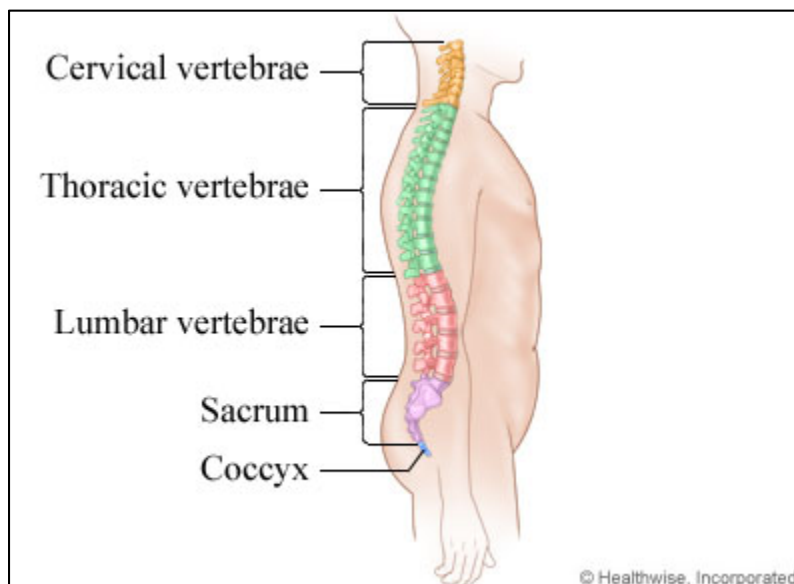
Introduction

As a patient, the best thing you can do to ensure successful and timely recovery from surgery is to understand your surgery and prepare for it.

This booklet explains how cervical spine surgery works, how to prepare for your surgery, and what to expect in the days leading up to and following surgery. In addition to reading this booklet, it's important to continually engage with your care team and ask questions to help you understand your specific condition and treatment.

Overview of Cervical Spine Surgery

Your neck, also known as the cervical spine, consists of the first seven bones in your spine. These bones are called vertebrae, and play an important role in protecting your spinal cord and the nerves that go into your arms and hands. In between each of these bones are soft disks filled with a jelly-like substance. These disks cushion the vertebrae and keep them in place.



Certain conditions (such as a herniated disc or bone spurs) can cause the spinal cord or spinal nerves to become compressed. When compression to the spinal cord or nerves occurs, patients may experience symptoms such as myelopathy (difficulty with fine motor skills in the hands and difficulty with walking) or pain and numbness in the area that nerve supplies.

Cervical spine surgery typically becomes a treatment option if other attempts to treat the neck have failed. There are several different types of cervical spine surgeries, and the type of surgery performed depends on each patient's medical case. Your ability to describe your symptoms to your doctor, your physical exam and imaging give your doctor the tools to decide what type of surgery will give you the best chance of alleviating your symptoms.

Surgeries are categorized as either Anterior or Posterior Cervical Surgeries, depending on whether the surgery is approached from the front (Anterior) or back (Posterior) of the neck.

Anterior (front) Surgeries

The anterior approach to the cervical spine provides direct access to disc space, and is used when a disc or bone spur need to be removed. Examples of anterior surgery include:

- Anterior cervical discectomy and fusion (ACDF)
- Anterior discectomy and arthroplasty (artificial disc)
- Anterior corpectomy and fusion (removal of entire vertebral body and two discs)

If a disc is removed completely, the space between the vertebrae will need to be fused with a piece of bone to maintain your neck's normal shape; sometimes the fusion requires the use of plates and screws.

Typically, patients who undergo anterior cervical surgery return home after spending one night in the hospital. Unless you are told otherwise, you should plan to go home the day after your surgery.

Posterior (Back) Surgeries

A posterior approach is used when additional space is needed, for example to alleviate pressure on the spinal cord or nerves. Examples of posterior cervical surgeries include:

- Foraminotomies (creating a small space over the nerve root)
- Laminectomies (removing the entire lamina)
- Laminectomy and fusion (removing lamina and fusing one level to the next)
- Laminoplasty (expanding the existing lamina without fusing one level to the next)

Depending on what surgery is recommended to alleviate your symptoms, sometimes fusing the bones of different levels of vertebra is required to maintain spine alignment.

Typically, patients who undergo posterior cervical surgery return home after spending one to two nights in the hospital. Unless you are told otherwise, you should plan to go home one to two days after your surgery.

General anesthesia is utilized for all spine surgeries discussed in this guide. Your anesthesia provider will be able to go over the specifics on the day of surgery. Any previous reactions or ill effects from previous anesthesia should be discussed at this time.

Scheduling Surgery

After you and your doctor have agreed to a surgical procedure, your surgeon submits a request to our Surgical Scheduling Center. This request includes details like your hospital preference, available dates, and surgical equipment needs. The Surgical Scheduling Center will schedule the surgery appointment and contact you to confirm the appointment and schedule your pre-operative appointment in the Peri-Operative Medicine Clinic.

Pre-Operative Consultation

During the pre-operative consultation, past medical history and diagnoses will be reviewed with you to ensure that medically you are clear to proceed with surgery. The Peri-Operative Medicine Clinic will also discuss your current medications and answer any questions you have about them.

One of the best ways to have a successful surgery and recovery is to know what's going on and what you need to do. It's important to ask questions and make sure you understand what's happening with your condition and treatment.

Consent Form

Prior to your surgery, you will be asked to sign a consent form that:

- Gives your permission for the operation
- States that you know what surgery you are having
- States that you are aware of the possible risks, benefits, complications, side effects, and alternatives

Make sure that you and the health care professionals treating you all agree on exactly what will be done during the surgery or procedure, and that the informed consent form includes the correct information about your operation and your surgical site (for example, the left or right side of your body). Make sure you understand what will be done; you should be able to say in your own words why you are having the surgery and what the risks are.

Below are examples of the consent discussion for specific surgeries:

Surgery Type	Informed Consent
ACDF (Anterior cervical discectomy and fusion)	The risks of the procedure were discussed with the patient including but not limited to bleeding, infection, non-resolution of pain, no benefit from surgery, paralysis, shoulder weakness, C5 palsy, wrong level surgery, stroke, heart attack, loss of bowel/bladder or sexual function, death, Horner's syndrome, hoarseness, difficulty swallowing, and nonunion as well as adjacent segment disease and possible need for re operation in the future. We also reviewed possible alternative approaches as well as the expected benefits from the proposed surgery.
Posterior cervical	The risks of the procedure were discussed with the patient including but not limited to bleeding, infection, non-resolution of pain, no benefit from surgery, paralysis, shoulder weakness, C5 palsy, wrong level surgery, stroke, heart attack, loss of bowel/bladder or sexual function, death, vertebral artery injury, nonunion as well as adjacent segment disease and possible need for re operation in the future. We also reviewed possible alternative approaches as well as the expected benefits from the proposed surgery.

Preparing For Surgery

Stopping Medications

To make sure your body recovers and heals from the surgery, your doctor may need to adjust your prescriptions up to two weeks prior to your surgery. The Peri-Operative Clinic will work with you to ensure you understand which medications you can or cannot take as you prepare for your surgery.

The following instructions provide a generic overview of medications that may be adjusted. The Peri-Operative Clinic will provide your specific instructions.

- **Certain medications (including aspirin, ibuprofen, certain vitamins and herbs, and warfarin or clopidogrel) make it difficult for blood to clot. You may be asked to stop using these or other blood-thinning medications before surgery.**
- **If you are on Coumadin, please contact the Coumadin clinic, In Sacramento at (916) 486-5256, in Napa Solano (707) 645-2520 for instructions and be sure to discuss those instructions this with your surgical team. You will also need to let your surgical team know what the recommended amount is for you.**

- **If you are on any anti-platelet drugs such as Plavix and/or Aspirin for a cardiac stent, please consult your Cardiologist regarding the management of these drugs prior to your surgery.**
- **Unless instructed by your surgeon to do so, it is very important that you do not take any anti-inflammatory medications for a period of two weeks prior to your surgery. This could cause your surgery to be cancelled. Examples of these medications include:**

- | | | | |
|------------|------------|------------|-------------|
| • Aspirin | • Advil | • Aleve | • Ascriptin |
| • Bayer | • Bufferin | • Celebrex | • Clinoril |
| • Disalcid | • Dolobid | • Easprin | • Ecotrin |
| • Excedrin | • Feldene | • Indocin | • Meclomen |
| • Motrin | • Nalfon | • Naprosyn | • Orudis |
| • Relafin | • Soma | • Tolectin | • Trilisate |
| • Voltaren | | | |

- If you are having a fusion, it is important to continue to stay off of these anti-inflammatories until your fusion is complete as these reduce your body's ability to heal bone.
- Discontinue any of the following supplements not taken under recommendation by your Primary Care Physician. For any you are taking for medical reasons, consult with your Primary Care Physician:

- | | |
|-----------------|-------------------|
| • Bromelain | • Ephedra |
| • Garlic | • Ginger |
| • Horsechestnut | • Licorice |
| • Saw Palmetto | • St. John's Wort |
| • Feverfew | • Fish Oil |
| • Ginko Biloba | • Ginseng |
| • Omega | • Papain |
| • Vitamin E | |

Your Checklist for Success

1. **Quit smoking.** Smoking makes it harder for your body to heal, including the healing of bones from having a cervical spine surgery. Quitting smoking represents the single most important step that anyone can take to enhance the length and quality of their lives. It is difficult to quit, but Kaiser Permanente has many resources available to assist you with smoking cessation. Call your Local Kaiser Permanente Health Education Department for a list of services and programs available to you.
2. **Complete an advance directive.** In the unlikely event that you are unable to speak for yourself or make health care decisions, an advance directive lets you choose someone to make decisions for you. Having an advance directive can give peace of mind not just to you, but to your family and friends as well. You can get an advance health care directive by going online to www.kp.org/lifecareplan.
3. **Obtain medical clearance for surgery.** Depending on your preexisting medical history this can be as simple as a telephone interview or as complex as a full cardiac work up. As mentioned above, The Surgery Scheduling Center will work with you to set this appointment up.
4. **Arrange for post-surgery transportation and a caretaker.**
5. **Watch KP Patient Education Videos.** We offer an excellent free online interactive tool created to help you prepare for surgery. [Prepare for Your Procedure – from EMMI™](#). These videos can help you prepare for your procedures and help you understand your care choices and risks.

You can access this tool by visiting www.kp.org/mydoctor, and following the below instructions:

1. Search for your surgeon by name
2. Click your surgeon's name
3. Click "Yes" if a Security Warning box appears
4. Click "Tools and Classes"
5. Click "Prepare for Your Procedure – Emmi"
6. Click the link of the procedure you are having under "Tools" column
7. If you receive a registration page, fill the required information out, click "Register"
8. Click "English" or "Spanish"
9. Click "Accept"
10. Verify your information and if correct, click "Yes"

****For questions or if you need assistance with this online feature, please visit the Health Education Department at any Kaiser Permanente Medical Office.**

Expected Time Off Work

Anterior discectomy	Sedentary occupation	Labor occupation
One or two disc levels	4 weeks	8 weeks
Three disc levels	6 weeks	12 weeks
Corpectomy	6 weeks	12 weeks

Posterior cervical	Sedentary occupation	Labor occupation
Laminoplasty	6 weeks	12 weeks
Laminectomy & fusion	6 weeks	12 weeks

The Week of Your Surgery

The day before surgery - confirm your arrival time

At least one business day prior to your surgery you will be contacted by our Perioperative Nurse and given the time you need to report for your operation. If you are active on kp.org, you may receive this information via secure message. This time will be earlier than your scheduled surgery to allow time for your admission and preparation.

Scheduled surgery times may change due to unforeseen events or emergencies. We will make every effort to keep your scheduled time and keep you informed. If you have not been told what time to come for your operation by 2:30 p.m. the afternoon before surgery, please call the Pre-Op Nurse (see page 12 for phone numbers).

The day of surgery:

1. On the day of surgery, do not eat or drink anything eight (8) hours before the time of your surgery.
2. Be on time for your preoperative check-in. Being late can delay your surgery. Allow extra time for parking or traffic. [Search our location finder](#) for driving directions to your medical center. The web address is:
<https://healthy.kaiserpermanente.org/health/care/consumer/locate-our-services/doctors-and-locations>
3. Shower the morning of surgery, but do not use any perfumes, colognes, or lotions on your skin. Do not shave the surgical area yourself. Shaving at home may increase infections after surgery.
4. Do not wear contact lenses. They could scratch your eyes during surgery.
5. Have your photo ID and your Kaiser Permanente identification card with you.

6. In Sacramento and South Sacramento please check in to the admitting office on the 1st floor. In Vacaville please check in to the Surgery Unit on the 2nd floor of our Vacaville Hospital at your scheduled time.
7. After checking in you will be taken to the pre-operative holding area, where you will be introduced to your health care team. Your family members will be shown to the post-surgical waiting room. The surgical waiting room is generally staffed with hospital volunteers that will help inform your family members of the progress you are making while in the operating room.
8. Your nurse will explain what will happen during the surgery and ask you several questions in preparation for the surgery to ensure your electronic medical record is up to date.
9. Your anesthesiologist will meet with you prior to surgery, so you have the opportunity to ask any questions you may have regarding anesthesia.
10. Your Surgeon will also be there to check on you, do a site verification marking with an ink pen to ensure the correct site for surgery, as well as ensure you followed your preoperative instructions
11. Once your surgery is complete you will be taken back to the post-operative recovery room for immediate post-surgical nursing care. After your surgery your surgeon will speak with your family members and explain the specific findings from the surgery. The hospital volunteers will instruct your family members on when they can see you in the post-operative recovery unit.

Discharge and Post-Operative Care

In the Hospital

Your post-operative care will cover both nursing care and discharge planning. Our nursing staff ensure that you are provided an excellent healing environment. Physical Therapy department will evaluate you for any equipment needs and for clearance for a safe discharge home. Depending on the operation, post-operative imaging studies may be ordered and evaluated prior to discharge.

Your neurosurgical healthcare team includes your surgeon, his or her surgical colleagues, hospital based medical doctors, intensive care doctors and physicians assistants who will make daily rounds to help you through the recovery process. In some circumstances other Surgeons from our Neurosurgical Team will be checking in on you should your recovery overlap with a day that your surgeon becomes scheduled to perform surgery.

Discharge Instructions

Upon discharge from the hospital, you'll be provided Discharge Instructions to help you recover as quickly and safely as possible. The instructions provide care instructions and guidelines around diet, medicine, and activity/exercise. Ask your doctor or nurse to explain anything you don't understand. This is a time to seek support from caring family members and friends. If you need help, ask for it.

See page 13 for example Discharge Instructions.

Follow-up Appointments

Your first follow up appointment is typically with the physician's assistant who followed you in the hospital. The hospital follow up appointment should be scheduled before you leave the hospital. The physician assistant is under the supervision of your surgeon and he/she reports directly to your surgeon. Often times the first visit is used to discuss the current state of recovery, ask questions obtain x-rays or medication etc. Typically this appointment takes 15-20 minutes. After this first follow up visit the second follow up visit is typically with your surgeon. Kaiser has provided a very streamline and easy way to contact your surgeon directly through mykp.org. If at any time you have questions for your surgeon please feel free to use this resource.

Additional Resources

Hospital and admission locations

Sacramento Hospital

2025 Morse Avenue, Sacramento CA 95825

Admissions phone number (916) 973-7450

South Sacramento Hospital

6600 Bruceville Rd, Sacramento CA 95823

Admissions phone number (916) 688-2522

Vacaville Hospital

1 Quality drive, Vacaville CA 95688

MOB B 2nd floor

Admissions phone number (707) 624-2080

Peri-Operative Medicine Clinic locations and phone numbers

Sacramento Hospital

2025 Morse Avenue, Station LL7 (basement), Sacramento CA 95825

(916) 973-7709

South Sacramento Hospital

6600 Bruceville Rd, MOB 1, 1st floor, South Sacramento

(916) 688 2745

Vacaville Hospital

1 Quality Dr, MOB B, 2nd floor #B21

(707) 651-3624

Neurosurgical Clinic phone numbers

Sacramento Neurosurgical Clinic: (916) 973-5490

South Sacramento Neurosurgical Clinic: (916) 627-7055

Vacaville Neurosurgical Clinic: (707) 624-1659

Example of Discharge Instructions

The remaining portion of this document is an example of discharge instructions for a cervical procedure.

CERVICAL procedure: After Your Surgery

Medications you should be taking will be listed:

Your Kaiser Permanente Care Instructions

A cervical (neck area) discectomy is surgery to cut away damaged tissue from the discs in the spine. This takes pressure off the nerves. You may be having this surgery because the discs between the bones in your neck (vertebrae) may be damaged and are squeezing the spinal cord. You might also have bone growths called spurs pressing on the nerves.

Your neck and back will probably feel stiff or sore after surgery. This should improve in the weeks after surgery. But it may take 4 to 6 months for you to get better completely. You may have trouble sitting or standing in one position for very long, and you may need pain medicine in the weeks after your surgery. It may take 4 to 6 weeks to get back to your usual activities, but it may depend on what kind of surgery you had.

Your doctor or other health care professional may advise you to work with a physical therapist to strengthen the muscles around your neck and back. You will need to learn how to lift, twist, and bend so that you do not put too much strain on your back.

The pain or numbness you were having in your arms before surgery should get better or go away completely.

This care sheet gives you a general idea about how long it will take for you to recover. But each person recovers at a different pace. Follow the steps below to get better as quickly as possible.

You can expect to feel better and stronger each day. You may get tired easily or have less energy than usual. Rest as you need to, but staying comfortably active will help you heal.

How can you care for yourself at home?

ACTIVITY

Arrange for extra help at home after surgery, especially if you live alone or provide care for another person.

For your safety, you must not drive until you are no longer taking pain medicines and you can move and react easily. This usually takes about 2 to 4 weeks.

Avoid taking long car trips for 2 to 4 weeks after surgery. Your neck may become tired and painful from sitting too long in one position.

Follow your doctor's directions about not lifting anything that would strain your neck and back. This may include heavy grocery bags and milk containers, a heavy briefcase or backpack, cat litter or dog food bags, a child, or a vacuum cleaner.

Rest when you feel tired. Getting enough sleep will help you recover.

Be as active as you comfortably can. Do a little more each day. Moving boosts blood flow and helps prevent pneumonia, blood clots, and constipation. Simply walking is excellent activity.

Avoid strenuous activities, such as bicycle riding, jogging, weightlifting, or aerobic exercise, until your doctor or other health care professional says it is okay.

Ask your doctor when it is okay for you to have sex. Avoid positions that put stress on your neck or cause pain.

DIET

You can return to your normal diet when you feel well. If your stomach is upset, try bland, low-fat foods like plain rice, broiled chicken, toast, and yogurt.

Avoid alcohol while you are taking prescription pain medicine.

Many people are constipated after surgery. This can be due to the pain medicine and a lack of activity. Be sure you get plenty of fluids, and take a fiber supplement such as methylcellulose (Citrucel) or psyllium (Metamucil) or a stool softener like docusate (Colace).

MEDICINE

Take pain medicine as needed, following the directions carefully. Do not wait until you are in severe pain. You will get better results if you take it sooner.

Talk to your doctor or other health care professional before starting any new medicine, including an over-the-counter medicine.

Do not take a non-steroidal anti-inflammatory medicine for 3 months after surgery. Examples of these medicines include ibuprofen (Advil, Motrin) or naproxen (Aleve). These pain medicines can prevent the bones from healing well.

Do NOT take more than one pain medicine that contains acetaminophen (Tylenol) at the same time. Many over-the-counter medicines, as well as the commonly prescribed pain medicines hydrocodone with acetaminophen (Vicodin, Norco) and oxycodone and acetaminophen (Percocet), contain Tylenol. Too much Tylenol is dangerous. Check the labels carefully.

To avoid an upset stomach, take your pain pills with food.

After surgery, your doctor will tell you when you can take your regular medicines again. Ask your doctor or other health care professional if you do not know when to restart your regular medicines after surgery.

If you are given antibiotics, be sure to finish them all. Do not stop taking them just because you feel better.

INCISION CARE

If you have tapes (Steri-strips) directly on your incision, leave them on for a week, or until they loosen and come off on their own.

You may shower when the outer bandage is off, approximately 72 hours after surgery. Do not scrub your incision. You may clean it with plain warm water, and gently pat it dry. Cover it with a dry gauze bandage if it weeps or rubs against clothing, otherwise it may stay open to the air. Most importantly just keep the area clean and dry.

Do not soak the incision under water during the first 4 weeks.

You may have some swelling around your surgery site. This is normal and may take several weeks to go away.

EXERCISE

Do exercises as instructed by your doctor or physical therapist to improve your strength and flexibility.

OTHER INSTRUCTIONS

Use an ICE pack or gentle massage on your back to reduce stiffness.

Follow-up care is a key part of your treatment and safety. As a partner in your health care, you can do things like keep all scheduled visits, be sure you know the results of all tests and labs ordered as part of your care, and keep an up-to-date personal list of the

medicines you are taking. Know how to contact us between visits, and call your doctor or other health care professional if you have signs that you are having problems.

WHEN SHOULD YOU CALL 911?

If you think you are experiencing a medical emergency, call 911 immediately or seek other emergency services. Examples of symptoms that may be an emergency include:

- You pass out (lose consciousness).
- You have chest pain.
- You cannot swallow.
- You have severe pain in your neck or back.
- When should you call your doctor or other health care professional?
- You are sick to your stomach or cannot keep fluids down.
- You have pain that does not get better after you take pain pills.
- You have a fever over 100.4°F.
- You have loose stitches, or your incision comes open.
- You have blood or fluid draining from the incision.
- You have signs of infection, such as increasing tenderness, red streaks, or pus from your incision.
- You have severe pain in your arms.
- You have new or increased weakness or numbness in your arms.
- You have trouble passing urine or stool.
- You are not feeling better day by day.
- You have any problems with your medicine.

HOW CAN YOU LEARN MORE ABOUT CERVICAL DISCECTOMY?

Log on: members.kp.org. Search for cervical disc herniation in the Health encyclopedia.