

## What is a Lumbar Puncture (Spinal Tap)?

A lumbar puncture, also known as a spinal tap, is a diagnostic test performed to collect a sample of the fluid that surrounds the brain and spinal cord. This fluid is known as "cerebrospinal fluid (CSF)." CSF circulates in the area of the brain and spinal cord. During a lumbar puncture, samples of the fluid are taken and sent to the laboratory for microscopic examination and chemical analysis. From the results of this test, your doctor may diagnose a particular disease/injury, or determine if you are responding to a specific treatment. Also, a lumbar puncture may be done to inject antibiotics or chemotherapy.

### A Lumbar Puncture is performed for the following purposes:

- To collect samples of cerebrospinal fluid (CSF) to assist in the diagnosis of certain diseases, such as: multiple sclerosis, Guillain-Barré Syndrome and other peripheral neuropathies, tumors and infections (for example: meningitis, encephalitis).
- To measure the cerebrospinal fluid (CSF) pressure and observe its appearance.
- To provide therapeutic interventions such as chemotherapy or anesthesia.
- To inject a radiopaque substance for diagnostic study of the structure of the brain and spinal cord.

## Scheduling Your Lumbar Puncture Procedure

- Your doctor's office staff will schedule your lumbar puncture. Lumbar puncture procedures are performed on both the Pacific and Davies Campus at California Pacific Medical Center.
- **Name:** \_\_\_\_\_  
(Last name) (First name) (Middle initial)
- **Date and Time of Lumbar Puncture:** \_\_\_\_\_
- **Campus Location and Arrival Time:**
  - Pacific Campus:** Plan to arrive 2 hours before.
  - Davies Campus:** Plan to arrive 1 hour before and pre-register.

## How Do I Prepare for a Lumbar Puncture (LP) Procedure?

- Eat a light breakfast.
- If you are a diabetic, eat a light breakfast and follow your usual routine.
- You should drink plenty of fluids the evening before to make sure you are well-hydrated for your procedure, unless otherwise indicated by your doctor.
- You may take your medications as usual.
- If you are taking blood-thinning medications such as Aspirin, Coumadin (Warfarin), Plavix (Clopidogrel), Aggrenox (Aspirin and Dipyridamole) or Non-Steroidal Anti-inflammatory medications such as Advil (Ibuprofen), Motrin (Ibuprofen), Naprosyn, (Naproxen), Aleve (Naproxen), call your doctor and ask when you should stop taking these medications before your lumbar puncture procedure.
- Tell your doctor and/or health care provider if you are allergic to any medications, particularly local anesthetics.
- If you have a cough, cold, or diarrhea, or any condition that may prevent strict bedrest for 2 hours, call your doctor before the procedure.
- Bring a list of your medications and insurance information.
- Your doctor may give you additional instructions for this test. Please read them carefully.
- **Arrange for a designated driver to take you home on the day of your procedure. You will not be allowed to drive yourself home.** You may take a cab home alone once you are released by the nursing staff.

### Notes & Questions to Ask My Doctor

---

---

---

---

## Where Do I Go for a Lumbar Puncture Procedure?

Go to the Specific Campus Location for Your Lumbar Puncture Test:	
<input type="checkbox"/> <b>Pacific Campus</b>  (refer to map on page 7)	<p><b>Go to: Ambulatory Care Unit (ACU)</b>            2351 Clay Street – 6<sup>th</sup> Floor (Stanford Building)            San Francisco, CA (415) 600-3480</p> <p><b>Plan to arrive 2 hours before your procedure.</b>            Parking is available in a garage located at 2405 Clay Street (corner of Clay and Webster Streets).</p>
<input type="checkbox"/> <b>Davies Campus</b>  (refer to map on page 8)	<p><b>Go to: Admissions – Lobby Level</b></p> <p><b>Pre-register in Admissions prior to LP procedure.</b>            Castro &amp; Duboce Streets            San Francisco, CA            You will be escorted to the Ambulatory Care Unit (ACU) – 1<sup>st</sup> floor, Nurses' Station.</p> <p><b>Plan to arrive 1 hour before your procedure.</b>            Parking is available in the garage at Castro &amp; Duboce Streets.</p>

## During the Lumbar Puncture Procedure

- The doctor explains the lumbar puncture (LP) procedure and its purpose. If you have any questions or concerns, now is a good time to share them. The procedure usually lasts about 30 minutes, but it may take longer.
- The Registered Nurse (RN) asks you to sign a consent form verifying that you understand and agree to the lumbar puncture procedure as explained by the doctor.
- The RN takes a brief history and checks a baseline blood pressure, pulse, and temperature.
- Positioning for the Lumbar Puncture (LP) Procedure: You will lie on your side with your knees drawn up to your chest. This position flexes your back and widens the space between your vertebrae (backbones), and therefore improves access for inserting the needle. Pillows may be placed for support.

## During the Lumbar Puncture Procedure *(continued)*

- Your doctor cleans ("preps") your skin in the lower back (lumbar area) with a special anti-bacterial soap, and then injects a local anesthetic under the skin to numb the area. This may feel like a mild sting that lasts only a few minutes, and will lessen your pain during the procedure.
- A thin, hollow needle will be inserted between the two lower vertebrae where the local anesthetic has numbed the area. You may feel pressure in your back during this part of the procedure.
- The cerebrospinal fluid pressure will be measured, and a small amount of fluid will be collected.
- Injectable medications, if ordered, will be given slowly.
- The needle will be removed.

## After the Lumbar Puncture Procedure

- The site on your back will be covered with a Band-Aid® (adhesive bandage). You may feel soreness at the site.
- After the lumbar puncture procedure, your doctor will order a specified time of bedrest (about 2-3 hours) in the Ambulatory Care Unit (ACU). You will be required to lie flat on your back, and you will not be able to get up to use the bathroom. Pillows may be placed under your knees for comfort.
- After your procedure, you will be allowed to eat and drink.
- You will not be allowed to drive yourself home. If you have a headache, you may be more comfortable reclining in a car seat.

## Caring for Yourself at Home

- **Care of the Puncture Site:** The Band-Aid® (adhesive bandage) can be removed from your back on the evening of your lumbar puncture.
- **Headache:** A spinal headache is from a cerebrospinal fluid (CSF) leak. A spinal headache is a headache that you experience when you sit up or walk, but when you lie down it goes away. "Headache, which occurs in 10% to 30% of patients, is the most common complication following lumbar puncture."<sup>1</sup>
  - To help relieve a headache, lie down and drink extra fluids. Drinking beverages with caffeine, such as coffee, tea, and colas, may be especially helpful to relieve headaches. However, do not drink only those beverages.
  - For each beverage you drink with caffeine, drink at least one without caffeine. Do not drink caffeine if a doctor has instructed you to avoid it (for example, caffeine may cause rapid heart rates in people who are sensitive to caffeine).
  - If spinal headache persists, and it is not relieved by bedrest, fluids, or pain relieving medications, then you need to call your doctor and/or neurologist, or go to the emergency room. You may need to have a blood patch to seal the leaking fluid from the lumbar procedure.
- **Back Discomfort:** Some people feel back discomfort after a lumbar puncture. To help relieve back discomfort, apply ice wrapped in a towel for 20 minutes three (3) to four (4) times the first day.
- **Bathing:** On the day of your procedure, you may shower, but do not soak in a bathtub. The day after your procedure, you may bathe in a bathtub or shower. Do not use a hot tub or whirlpool bath for 24 hours after your procedure.

---

<sup>1</sup> UpToDate®: Lumbar puncture: Technique, indications, contraindications; and complications in adults. Retrieved August 1, 2005, from [http://www.utdol.com/application/topic/topicText.asp?file=cns\\_infe/9312&type=A&selected](http://www.utdol.com/application/topic/topicText.asp?file=cns_infe/9312&type=A&selected).

## Caring for Yourself at Home *(continued)*

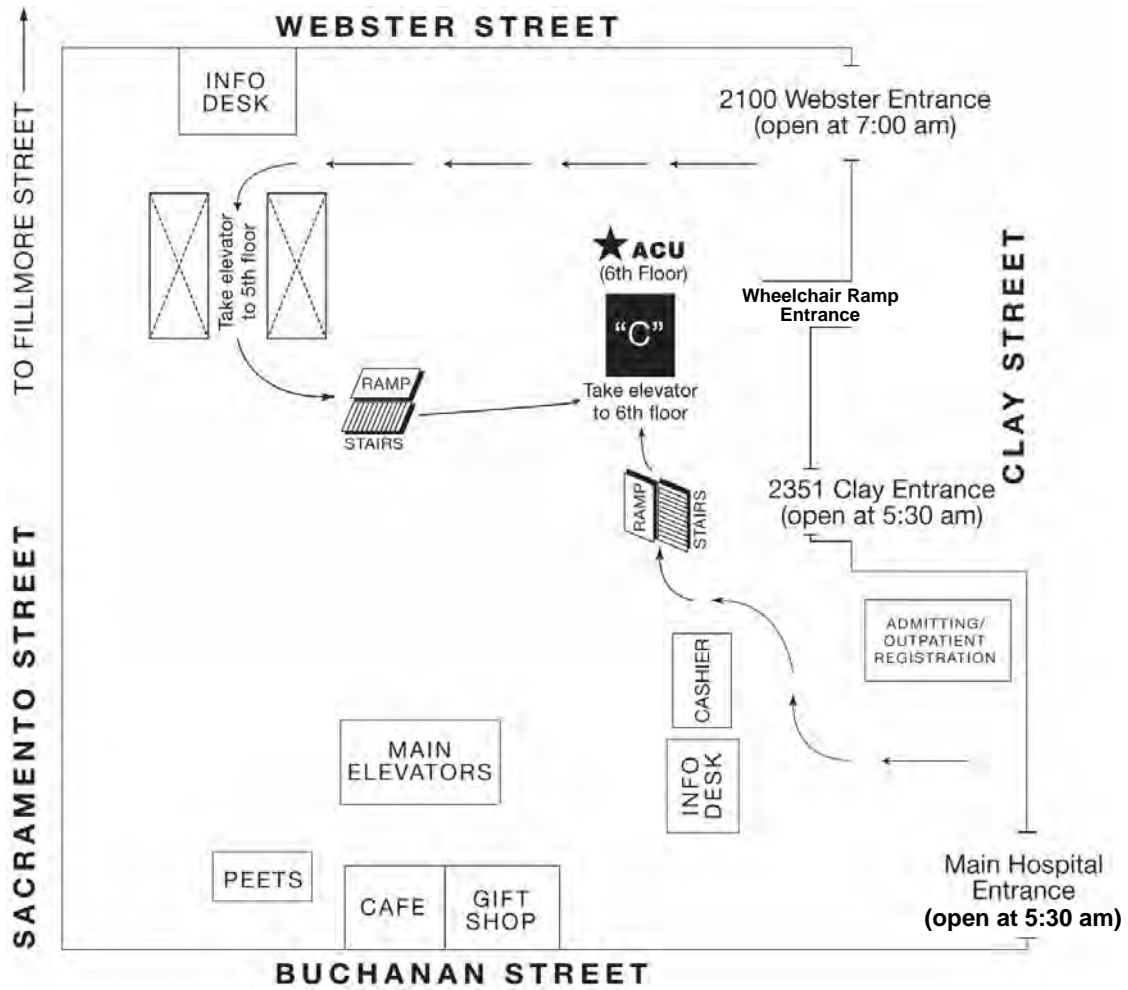
- **Activity Limitations:** On the day of the procedure rest as much as possible. Do not participate in strenuous activities the day and evening of your procedure including:
  - Do not lift greater than 10 pounds (lbs.)
  - No bending
  - No straining
  - Avoid constipation (straining with a bowel movement)
- **Diet:** Resume your normal diet and intake of fluids.
- **Returning to Work:** Discuss with your doctor when you are able to return to work.

### When to Call Your Doctor

#### Call Your Doctor Immediately if You Experience Any of the Following Symptoms

- If you develop a spinal headache after a lumbar puncture, try to lie down as much as possible. If the spinal headache persists, and it is not relieved by bedrest, fluids, or pain relieving medications, then you will need to call your doctor and/or neurologist, or go to the emergency room. You may need to have a blood patch to seal the leaking fluid from the lumbar procedure.
- Fever of 101°F / 38.5°C or above.
- If you have questions, problems, or notice anything unusual that is not covered by these instructions.

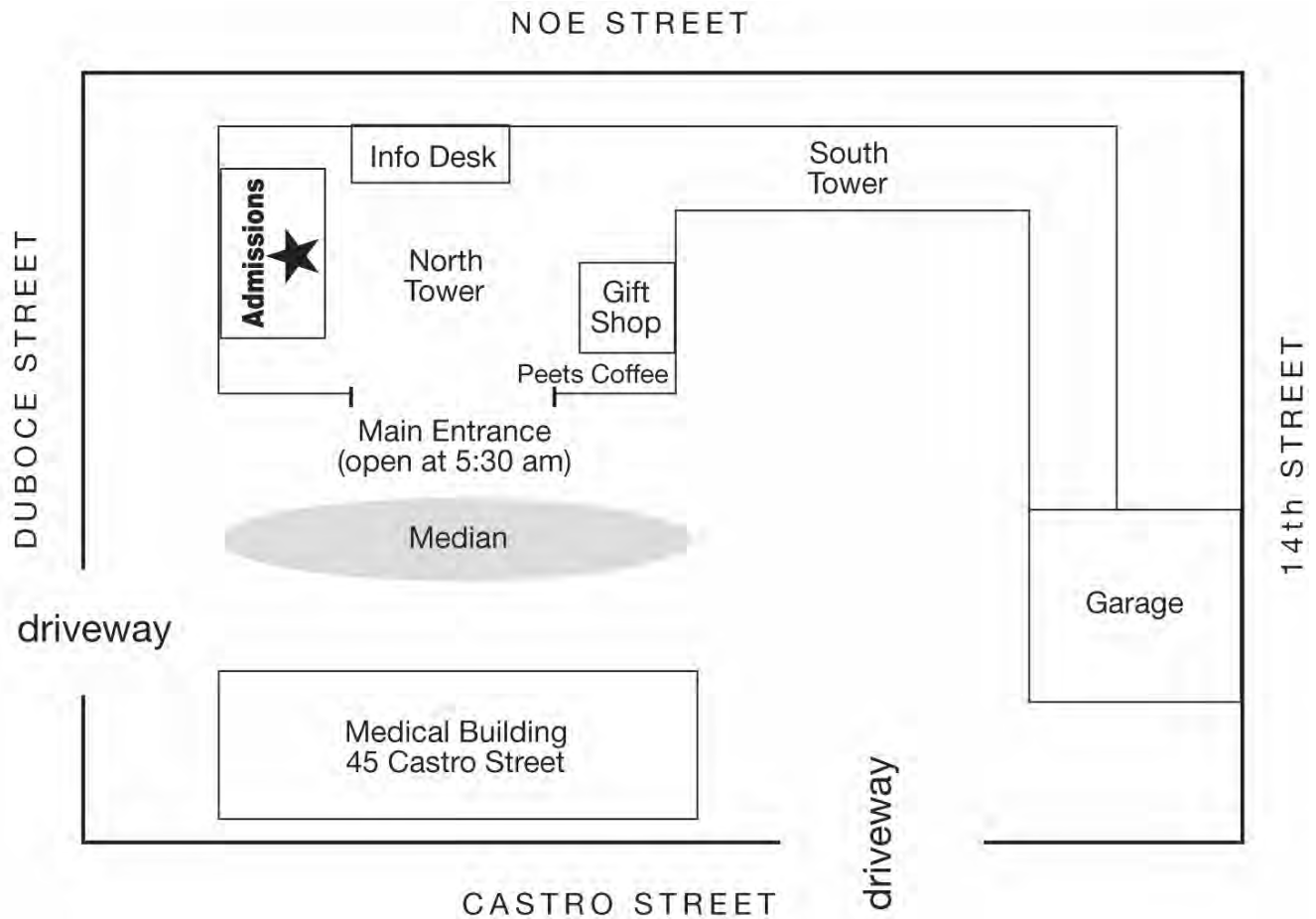
# Map of Pacific Campus



---

## Map of Davies Campus Castro & Duboce Streets

---



### When Will I Get the Results of my Lumbar Puncture?

Your primary doctor or Neurologist will let you know when to expect the results of your lumbar puncture procedure. Some results (for example: cell count, glucose level, and protein level) are available within 1-3 days. Other results may take 1-2 weeks (for example: cytology, tumor studies, and multiple sclerosis panel).

## More Ways to Learn

- Go to [www.cpmc.org/learning](http://www.cpmc.org/learning).
- Visit the American Academy of Neurology Web site at [www.aan.com](http://www.aan.com) and click on "Public" for more information on neurological diseases.
- Visit The Brain Matters Web site developed by the American Academy of Neurology Foundation at [www.thebrainmatters.org](http://www.thebrainmatters.org) for information on common disorders of the brain and to learn how people are living with these disorders.

### Frequently Asked Questions

**Question: Why do I have to limit my activity after a lumbar puncture?**

**Answer:** To prevent a spinal headache. A spinal headache is from a cerebrospinal (CSF) leak. It is a headache that you experience when you sit up or walk, but when you lie down it goes away.

**Question: Can I drive home after a lumbar puncture?**

**Answer:** No, you cannot drive yourself home after a lumbar puncture procedure. Arrange for a designated driver to take you home on the day of your procedure. If you have a headache, you may be more comfortable reclining in a car seat. You may take a cab home alone, if you are released by the nursing staff.

**Question: When will I get the results of the lumbar puncture?**

**Answer:** Some results (for example: cell count, glucose level, and protein level) are available within 1-3 days. Other results may take 1-2 weeks (for example: cytology, tumor studies, multiple sclerosis panel).

---

Produced by the Center for Patient and Community Education in association with the staff and physicians at California Pacific Medical Center. Date: 6/05

© 2005-2007 California Pacific Medical Center

Funded by: A generous donation from the Mr. and Mrs. Arthur A. Ciocca Foundation.

Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).