

ASCENSION ST VINCENTS

LUMBAR PUNCTURE & MYELOGRAM PATIENT HANDOUT

Radiologist who performed your procedure:

Procedure Description:

- A lumbar puncture or myelogram is performed to evaluate or treat conditions involving the spinal canal and cerebrospinal fluid (CSF).
- During the procedure, a radiologist uses imaging (usually fluoroscopy or CT) to precisely guide a needle into the lower back. The skin is cleaned with antiseptic, and local anesthetic is used to numb the area.
- For a lumbar puncture, a small needle is inserted into the spinal canal to collect CSF for laboratory testing or to measure pressure.
- For a myelogram, a small needle is inserted into the spinal canal and contrast material is injected. CT imaging is then performed to evaluate the spinal cord and nerves.
- For lumbar puncture with intrathecal chemotherapy, a small needle is inserted into the spinal canal and medication is injected directly into the CSF through the needle to treat certain cancers affecting the nervous system.
- The procedure usually takes about 15-30 minutes. You will then be observed for period of time to monitor for any complications.
- Any CT imaging requires additional time after the procedure.
- Almost all outpatients go home the same day; however, rarely a patient may be kept in the hospital overnight or longer.
- Inpatients remain in the hospital until their other medical conditions are adequately addressed.

Benefits:

- Imaging allows the radiologist to precisely guide needle placement.
- Provides important diagnostic information by analyzing CSF or imaging the spinal canal and nerves.
- Allows direct delivery of chemotherapy into the CSF when needed for treatment.
- Uses small needles and does not require surgery.
- Helps guide treatment decisions and further care.
- Most patients tolerate the procedure well and return to normal activities shortly afterward.

Risks & Potential Complications:

- The following list includes some, but not all, possible complications.
- Pain is common but usually mild, typically resolves within a few days, and can be managed with over-the-counter pain medication. Severe pain can occur but is uncommon.
- Minor bleeding is common and usually does not require medical treatment. Any resulting bruising typically resolves on its own over several days. Serious bleeding that requires medical treatment (such as hospital admission or an additional procedure or surgery) can occur but is uncommon.
- Infection can occur but is uncommon. Most infections are mild and can be treated with antibiotics.
- Injury to nearby organs blood vessels, or nerves can occur but is uncommon.

- Headache after the procedure (post-lumbar puncture headache) can occur and usually improves with rest and fluids. Rarely, an additional procedure may be needed.
- Leakage of CSF from the puncture site can occur and may contribute to headache.
- Nerve irritation causing temporary numbness, tingling, or pain in the legs can occur but is uncommon.
- Side effects from intrathecal chemotherapy can occur, depending on the medication used.
- Inaccurate or inconclusive results can occur. In some cases, a repeat procedure may be needed.
- Feeling faint or lightheaded (a vasovagal reaction) can occur during or after the procedure. This is usually mild and resolves quickly.
- Allergic reactions to the local anesthetic, topical antiseptic or other medications are uncommon.
- Death can occur but is rare.

Alternatives:

- Blood tests or other noninvasive studies in select cases.
- Medical management without CSF testing or injection, depending on your condition.
- MRI or CT imaging alone, depending on the clinical question.
- Surgical procedures in rare cases when imaging or treatment cannot be performed using a needle.
- Some patients choose no further evaluation or treatment; however, this carries the risk of delayed diagnosis or progression of disease and is generally not recommended.

Aftercare:

- A bandage will be applied over the procedure site. You may remove the bandage 24 hours after your procedure.
- It is important to lie flat for 6–8 hours after your procedure to help reduce the risk of cerebrospinal fluid (CSF) leakage and post-procedure headache.
- You may shower and allow water to flow over the site 24 hours after your procedure; however, do not submerge the site in water (bath, pool, hot tub, or ocean) until it has healed.
- If you were provided with an ice pack, apply it to the procedure site periodically for 15-30 minutes after your procedure.
- Do not apply lotion or ointment to the site until it has healed unless instructed to do so.
- Avoid strenuous physical activity for at least 24 hours after your procedure. Then gradually increase your activity level as tolerated.
- It is normal to experience mild pain and bruising after your procedure. You may take acetaminophen (Tylenol), aspirin, ibuprofen (Motrin), or naproxen (Aleve) for relief. It is safe to take aspirin, ibuprofen, or naproxen soon after your procedure; however, you may experience increased bruising if you do so.
- Contact Radiology, your ordering provider, or your nurse if you have any concerns or experience any of the following: severe pain not responding to medications; significant pain or swelling at the procedure site; signs of possible infection (significant redness or purulent drainage from the procedure site, severe pain, or high fever); shortness of breath and/or chest pain worse than normal for you; dizziness or lightheadedness when standing; a faster-than-normal heart rate; headache that worsens when standing; new weakness, numbness, or tingling in your arms or legs; or difficulty urinating or having a bowel movement. Call 911 in the event of an emergency.
- Weekdays 8 am to 5 pm call 308-8401 (Riverside), 296-3886 (Southside), 602-1360 (Clay), 691-1297 (St Johns) or Optimal Imaging (450-6955). Weekdays 5 pm to 10 pm or weekends 6 am to 10 pm call 308-

8401. If outside of these hours, call the hospital operator at 308-7300 and ask to speak to the Interventional Radiologist on call.

How Do I Receive Procedure Results?

- Many lumbar puncture procedures produce a CSF sample that is sent to the laboratory for analysis. Results can take 1-2 weeks (sometimes longer) to become available, depending on which tests were ordered by your provider.
- For myelogram imaging, your provider usually receives the CT results within 1–2 business days.
- Please contact your ordering provider's office to obtain results and for follow-up instructions.