



For more information please visit us online at: <http://www.osmh.on.ca/diagnostics/>

**If you or your support person do not clearly understand the procedure, please ask for clarification**



## THORACENTESIS<sup>1</sup>

### What is it?

Thoracentesis is a medical procedure used to remove excess fluid from the pleural space (the space between the lungs and the chest wall). This fluid buildup, known as pleural effusion, can cause difficulty breathing and discomfort. Thoracentesis can relieve symptoms, help diagnose underlying conditions, and improve lung function. At OSMH, we generally only sample pleural fluid for laboratory analysis. We do not offer this as a therapeutic service.

### Why do I need it?

Your doctor may order a diagnostic thoracentesis in order to:

- Investigate unexplained pleural effusions to identify the cause (e.g., infections, malignancies, heart failure, and liver cirrhosis).
- Analyze pleural fluid for suspected infection (e.g., empyema or tuberculosis) or malignancy.
- Relieving symptoms such as difficulty breathing caused by large pleural effusions.
- Preparing for pleurodesis in recurrent effusions.
- Draining infected or bloody fluid (e.g., empyema or hemothorax) to prevent complications.
- Managing pleural effusions related to conditions like pneumonia, cancer, autoimmune diseases, and trauma.



## HOW IS THE PROCEDURE PERFORMED?

### Before

For specific questions regarding the clinical need for this procedure, please contact your ordering provider.

#### Patient Preparation:

You should wear loose-fitting clothing that is easy to change out of. **You will need to arrange for someone to drive you home after you have recovered from the procedure.** One support person (spouse, friend, caregiver, family member) may accompany you on the day of your appointment, but not into the procedure room.

Please bring a list of the medications you are currently taking and a list of any drug/medication allergies you may have.

You can eat and drink normally before the procedure. You may take your usual medications prior to the procedure. See next page if you take blood thinners.

Please phone the Diagnostic Imaging booking line at **705-325-2201 ext. 3505** for cancellations or rebooking if you are unable to attend your appointment.



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### Bloodwork<sup>3</sup>

Bloodwork is **usually not needed** for this procedure.

However, it is required if you:

- Take Warfarin (Coumadin®)
- Have **prolonged bleeding**, risk of **thrombocytopenia** or **known thrombocytopenia**

If the above applies to you then your doctor will order:

- INR (must be  $\leq 2.5$ ,  $\leq 2.0$  for ports or tunneled catheters)
- PTT
- CBC (platelets must be  $\geq 20 \times 10^9/L$  or greater)

The bloodwork results must be current within **4 weeks of the procedure**.

**If you take Warfarin (Coumadin)**, you'll need a new INR drawn **the day before** your procedure.

**Important:** Missing bloodwork may delay or reschedule your appointment.

### Blood Thinners / Anticoagulants / Antiplatelets Medications<sup>3</sup>

Stop the listed medications as per the below schedule before your procedure unless instructed otherwise. If unsure, then consult your doctor or healthcare provider about which medications to pause, for how long, when to restart them, and any concerns you may have.

Medication	Withholding	When to Stop	Restart After
Coumadin® (Warfarin)*/**	Based on INR	Based on INR	NA or same day re-initiation for bridged patients
Cangrelor (Kengreal)	Yes	Defer procedure until off medication; if procedure is emergent, withhold 1 h before procedure	multidisciplinary decision making
Abciximab (ReoPro)	Yes	Withhold 24 h before procedure	multidisciplinary decision making
eptifibatide (Integrilin) tirofiban (Aggrastat)	Yes	4–8 h before procedure	multidisciplinary decision making
* consider bridging with heparin (need admission) for high thrombosis risk cases			
** consider using reversal agent if emergent or STAT			

### Important Notes

- Patients on Warfarin (Coumadin®) need an **INR** test the **day before** the procedure.
- Those with **prosthetic valves**, **prior clots**, or **stroke-related atrial fibrillation** may need bridging therapy to prevent thrombosis.
- **Do not** stop blood thinners if you have **coronary or brain stents**—consult your doctor first.
- If anticoagulation is stopped, your doctor must provide instructions.
- Applies only to elective procedures, not emergencies.



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#### Coming To The Hospital

You must first sign-in with **Centralized Patient Scheduling & Registration (CPSR)**, which is located immediately to your left when you enter the hospital from the main entrance (off Dunlop Street, across from the gift shop). You will receive a patient wristband and be directed to the **Diagnostic Imaging department**.

**Please bring to the hospital your OHIP card and a list of current medications you are taking.**

#### During

Thoracentesis is done in the Interventional Radiology or Ultrasound Department of Diagnostic Imaging.

**The duration of your appointment time will vary from 30 minutes – 1 hour.**

1. You will be asked to remove your clothing from above the waist and put on a hospital gown.
2. A Medical Radiation and Imaging Technologist (MRIT) will explain the procedure and answer any questions you have before the procedure.
3. You will sit on a stool or chair and lean over a procedure table. This procedure is generally performed through your lower back.
4. This is an aseptic procedure; your back will be cleaned using a hospital-approved cleansing agent, and a sterile drape applied.
5. To assist with your comfort, a radiologist will inject a numbing agent, called Lidocaine, at the procedure site. This freezes the area for the procedure. This should be the only pain or discomfort felt during the procedure.
6. The radiologist will use ultrasound to guide the needle. Sample fluid is taken; rarely will we attempt to drain beyond what is needed for a diagnostic sample.
7. A dressing / bandage is applied once the thoracentesis is completed.

**Notes / Questions** *(write down any notes or questions you may have for your doctor, healthcare practitioner, or the care team in Diagnostic Imaging on the day of your appointment. You can also use this space to write down a list of your current medications):*




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## WHAT TO EXPECT AFTER<sup>2</sup>



### Recovery & Going Home

You may leave once the procedure is completed, as long as you are feeling well.

**We recommend having someone drive you home after the procedure.**

Don't drive if you are taking strong pain medicine. If you were given medication to help you relax or manage pain during the procedure (not common), then you cannot drive for the next 24 hours.



### Diet & Activity

- Rest when you feel tired. Getting enough sleep will help you recover.
- Avoid strenuous activities, such as bicycle riding, jogging, weight lifting, or aerobic exercise, until your doctor says it is okay.
- Ask your doctor when you can drive again.
- You may need to take 1 or 2 days off from work. It depends on the type of work you do, how you feel, and how much fluid was removed.
- You can eat your normal diet.
- Drink plenty of fluids (unless your doctor tells you not to).



### Wound Care

- Wash the area daily with warm, soapy water, and pat it dry.
- Don't use hydrogen peroxide or alcohol, as these may delay healing.
- You may cover the area with a gauze bandage if it weeps or rubs against clothing.
- Change the bandage every day.
- Keep the area clean and dry.



### Bathing

- You may shower.
- Do not take a bath until the procedure site has healed, or until your doctor tells you it is okay.



### Medication

- **If your doctor or healthcare provider advised you to stop any medications for this procedure then consult with them first about the safety of when you can start your medications again;**
- Otherwise, resume your normal medication schedule.
- If you **normally** take acetylsalicylic acid (Aspirin™) or another blood thinner medication, ask your doctor when to start taking it again. Make sure that you understand exactly what your doctor wants you to do;
- Otherwise, **do not** take (Aspirin™) or anti-inflammatory medicines (such as ibuprofen) for one **week** after the procedure.



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## WHEN TO SEEK HELP<sup>2</sup>



### Call 911:

If you believe you require emergency care – **call 911**. Reasons to call 911 include:

- You have passed out (lose consciousness), or become very dizzy, weak, or less alert
- You have severe trouble breathing
- You have a fast or uneven pulse
- You experience sudden chest pain and shortness of breath; you cough up blood, and/or
- Significant bleeding from the procedure site (i.e. bright red blood that won't stop)



### Call your doctor, healthcare provider, or Health Connect Ontario immediately if you experience:

- Shortness of breath that is new or getting worse.
- New or worsening pain in your chest, especially when taking a deep breath.
- Nausea or inability to keep fluids down.
- Fever over 38°C.
- Bright red blood soaking through the bandage over your procedure site.
- Signs of infection, such as:
  - Increased pain, swelling, warmth, or redness.
  - Red streaks leading from the procedure site.
  - Pus draining from the procedure site.
  - Swollen lymph nodes in your neck, armpits, or groin.
  - A fever.
- Coughing up significantly more mucus than usual or a change in mucus color.
- Any other concerns.

### Health Connect Ontario may be reached 24-hours a day, including weekends, by:

- Calling 811
- Calling 1-866-797-0007 (TTY – teletypewriter service)
- Visiting <https://healthconnectontario.health.gov.on.ca/> and selecting “Chat with us”

**BRING THIS INFORMATION PACKAGE WITH YOU SHOULD YOU URGENTLY NEED TO SEE YOUR DOCTOR OR GO TO THE EMERGENCY DEPARTMENT OF YOUR NEAREST HOSPITAL.**

*Use this material for your information only. It does not replace advice from your doctor or other health care professionals. Do not use this information for diagnosis or treatment. Consult with your health care provider about a specific medical condition.*

### References:

1. Wiederhold BD, Sharma S, O'Rourke MC. Thoracentesis. [Updated 2024 Oct 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK441866/>
2. My Alberta Health. Thoracentesis: What to Expect at Home. [Updated 2022 Mar 2]. <https://myhealth.alberta.ca/health/AfterCareInformation/pages/conditions.aspx?Hwid=ud2410>
3. Patel et al. Society of Interventional Radiology Consensus Guidelines for the Periprocedural Management of Thrombotic and Bleeding Risk in Patients Undergoing Percutaneous Image-Guided Interventions—Part II: Recommendations. JVIR 2019; 30:1168–1184.

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