



# Distant Metastasis Biopsy

**Distant metastasis is the spread of cancerous cells to areas of the body other than the original tumor site. A biopsy can identify features of the abnormal cells and determine whether they are cancerous or noncancerous. Additionally, a biopsy may help in evaluating whether an existing cancer has evolved or progressed since the original diagnosis.**

Biopsy methods vary depending on what part of the body is being assessed. The information provided below explores the types of biopsies that can be taken from the lung & chest, liver, and bone. The degree of invasiveness differs amongst biopsy methods. Typically, more invasive procedures are carried out if the minimally invasive options are unable to provide a definitive diagnosis.

## Ways to Perform a Lung & Chest Biopsy

- **Sputum cytology:** Secretions from a deep cough are used to analyze the lungs and respiratory system. While patients have an easy time performing this method, the results may not be conclusive.
- **Transthoracic image-guided needle biopsy:** A needle is inserted through the skin of the chest into the area of concern to collect and assess local cells.
- **Endobronchial lung biopsies:** A special, flexible camera is placed through the mouth and into the lungs to take images of the lesion and obtain samples that need further analysis. A few different methods of endobronchial lung biopsies exist. Some methods involve removing a piece of the tissue (biopsy), whereas others remove only a few cells (transbronchial needle aspiration, brush biopsy, bronchoalveolar lavage). For patient comfort, sedation and a numbing medicine are used.



Please note that this information is intended for educational purposes. It does not replace consultation with your doctor, and it should not be interpreted as medical advice. We encourage you to speak to your health care provider if you have further questions or concerns regarding your medical care.

For more information scan this code or visit:

<https://thancguide.org/cancer-basics/diagnosis/biopsy/distant-metastasis/>

- **Video-assisted thoracoscopic surgery (VATS) or mediastinoscopy with biopsy:** A procedure performed under general anesthesia where a camera is inserted directly into the chest through a small incision. VATS can be used to both diagnose metastasis by sampling tissue, and in some cases to treat it by excising the problematic tissue in its entirety.
- **Open surgical biopsy (thoracotomy):** A surgical procedure is performed under general anesthesia to open a window in the chest and remove the suspicious region of the lung. This method is the most invasive and results in the longest recovery time for the patient. However, it provides the most definitive results. Similar to VATS, this method can be used to both diagnose and remove metastatic tissue.

## Ways to Perform a Liver Biopsy

- **Transabdominal (or percutaneous):** A small needle is inserted through the skin and an ultrasound or low-dose CT scan is used to ensure the needle has entered the lesion. Once the needle is in the correct location, cells are drawn out through the needle for analysis. Patients will be asked to lie still on their side with their right arm up, and hold their breath briefly during the biopsy.
- **Transvenous:** A catheter is inserted into the jugular vein and threaded through the system of veins into the liver. This method is less commonly used for cancer diagnoses because it is challenging to enter the specific lesion.
- **Laparoscopic:** A surgical procedure performed under general anesthesia where biopsy instruments and a small camera are inserted through incisions in the abdomen. A piece of suspicious tissue is removed and analyzed.

## Ways to Perform a Bone Biopsy

- **Percutaneous needle biopsy:** The skin is numbed and a needle is placed through the skin and into the bone. Cells are removed and analyzed.
- **Open biopsy:** An incision is made in the skin, either after numbing the area or putting the patient to sleep, and cells are removed from the bone lesion.



Please note that this information is intended for educational purposes. It does not replace consultation with your doctor, and it should not be interpreted as medical advice. We encourage you to speak to your health care provider if you have further questions or concerns regarding your medical care.

For more information scan this code or visit:

<https://thancquide.org/cancer-basics/diagnosis/biopsy/distant-metastasis/>