

## Enlarged Lymph Nodes

### What Is a Lymph Node?

Lymph nodes are small, bean-shaped organs that are part of your immune system. Lymph nodes contain white blood cells, or lymphocytes, to help fight infections and cancers. Lymph nodes are connected by lymph vessels. These are located throughout the body, including your neck, armpits, chest, abdomen, and groin.

### Why Do Lymph Nodes Enlarge?

Enlarged lymph nodes are called lymphadenopathy. Samples of an invader, for example infection or cancer, are brought to the lymph nodes. The white blood cells work together to fight the illness. Lymphadenitis is when lymph nodes enlarge from an infection. This is common in children. Certain medications or autoimmune diseases can also cause swollen lymph nodes. Less commonly, cancer may enlarge lymph nodes. Lymphoma is a cancer that begins in the lymph nodes. Cancers from other parts of the body may also invade lymph nodes. This is called metastasis.

### When Should I Be Concerned?

In children, enlarged neck lymph nodes are very common after routine illnesses. These usually get better on their own. Worrisome features are constant fevers, night sweats, weight loss not on purpose, and enlarged lymph nodes all over. It is concerning if lymph nodes are larger than 2 cm after 2 weeks or if they enlarge at a fast rate. It is not normal if lymph nodes are firm, feel stuck in place, or are located lower in the neck. For adults, newly enlarged lymph nodes when not sick or that persist 2 to 4 weeks after illness should be checked by a doctor to rule out cancer.

### What Are the Next Steps?

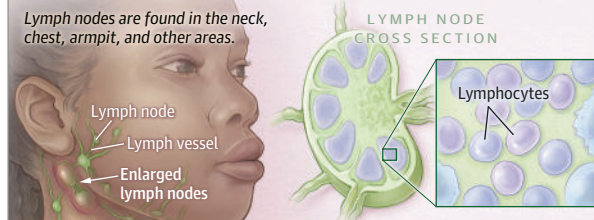
See your pediatrician or primary care physician if you are worried about an enlarged lymph node. A history and examination may help determine the cause. Blood work or imaging, like chest radiography (also known as x-ray) or computed tomography, may be ordered. Antibiotics may be used to see if the swelling will decrease. Steroids should generally be avoided until the cause is known. You may be referred to a subspecialist, like an otolaryngologist, for head and neck lymphadenopathy.

### What Is a Biopsy?

A biopsy may be recommended for diagnosis. This is when a piece of the lymph node is examined under a microscope. A fine-needle aspiration is when a needle is used to sample fluid and cells within the lymph node. This is often completed with ultrasonography and injected local anesthetic. A core needle biopsy is performed

**Lymph nodes** are small, interconnected organs of the immune system that filter a fluid called lymph from the body's tissues. Lymph nodes contain white blood cells, called lymphocytes, that help detect and fight infections.

Lymph nodes are found in the neck, chest, armpit, and other areas.



**Lymphadenopathy** is when lymph nodes become enlarged, sometimes due to infection or cancer.

*In children, swollen lymph nodes after infection are common.*

#### Concerning symptoms of enlarged lymph nodes include

- Persistent enlargement
- Constant fevers
- Night sweats
- Unintended weight loss
- Lymph nodes feel firm or stuck in place

*J. Kethu*

**See a health care professional if concerned about lymphadenopathy.** Next steps may include antibiotics, blood tests, or imaging, such as computed tomography, to determine the cause of swelling.



Fine-needle aspiration

Diagnosis may require a biopsy, where a sample of lymph is taken using a small needle or when a piece of or the entire lymph node is surgically removed.

similarly. However, this allows for a larger sample and more special studies to be performed.

An incisional or excisional biopsy is when a piece of or the entire enlarged lymph node is removed. This is sometimes preferred if there are worrisome features or concern for atypical infections. This is often performed with the patient sedated or fully asleep in the operating room. Expect stitches and a small scar.

#### FOR MORE INFORMATION

National Library of Medicine

<https://medlineplus.gov/ency/article/003097.htm>

<https://medlineplus.gov/ency/article/001301.htm>

American Cancer Society

<https://www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html>

**Authors:** Nicole A. Stoler, MD; Daniel C. Chelius, MD

**Published Online:** September 12, 2024. doi:10.1001/jamaoto.2024.2686

**Author Affiliations:** Department of Otolaryngology–Head and Neck Surgery, Baylor College of Medicine/Texas Children's Hospital, Houston.

**Conflict of Interest Disclosures:** None reported.

**Section Editor:** Samantha Anne, MD, MS.

The JAMA Otolaryngology–Head & Neck Surgery Patient Page is a public service of *JAMA Otolaryngology–Head & Neck Surgery*. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, *JAMA Otolaryngology–Head & Neck Surgery* suggests that you consult your physician. This page may be downloaded or photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, email [reprints@jamanetwork.com](mailto:reprints@jamanetwork.com).