

# B 2

# EXAMINATION OF LYMPH NODES

## INTRODUCTION

Lymphatic system is an integral part of the immune system

The main functions are to transport excess fluid from the interstitial spaces to the circulatory system and to protect the body against infectious organisms. It provides defense against microorganisms by producing antibodies and performing phagocytosis. It also plays an unwanted role in providing at least one pathway for the spread of malignancy.

It is composed of lymph fluid (lymph), collecting ducts, lymph nodes, spleen, thymus, tonsils, adenoids and Peyer's patches.

The purpose of this examination is to assess whether a patient has evidence of lymphadenopathy or hepatosplenomegaly which are common clinical findings seen in conditions such as lymphoma and leukemia.

## SKILL

Motor

## LEARNING OBJECTIVES

At the end of session all the students would be able to

- Discuss the general functions of the lymphatic system..
- List the locations of the major groups of lymph nodes.
- Perform standard technique of lymph node examination

## EXAMINATION OF LYMPH NODES

- Wash hands
- Introduce yourself and take consent for examination
- Confirm patient details – (name)
- Ensure presence of a chaperone

## INSPECTION:

- Any visible nodes
- Overlying skin for discoloration, scar, any discharge
- Draining area

## PALPATION

For any palpable lymph node, it is important to assess the following characteristics to help determine the likely cause:

## SITE:

Palpable nodes may be localized to one region e.g. local infection or early lymphoma or generalized e.g. late lymphoma

The palpable lymph nodes areas are:

- Epitrochlear
- Axillary
- Cervical and occipital
- Supraclavicular
- Infraclavicular
- Inguinal
- Popliteal
- Para -aortic

## SIZE

- Number, temperature, surface margins

## CONSISTENCY

- Hard nodes suggest carcinoma deposit
- Soft nodes may be normal
- Rubbery nodes may be due to lymphoma

## TENDERNESS

This implies infection or acute inflammation

## FIXATION / MATTING

Nodes that are fixed to underlying structure are more likely to be infiltrated by carcinoma  
Matted lymph nodes are features of tuberculosis.

## OVERLYING SKIN

Inflammation of the overlying skin suggest infection, and tethering to the overlying skin suggest carcinoma

## NOTE:

If an enlarged lymph node is found, examine:

- P Primary site
- A All associated nodes
- L Liver
- S Spleen

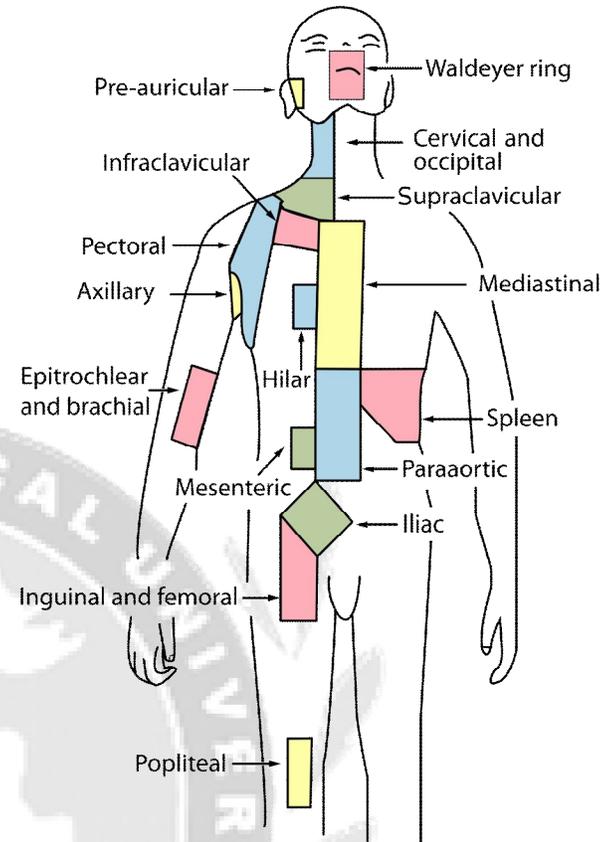
## CERVICAL LYMPH NODES – METHOD

1. Inspect for any evidence of lymphadenopathy or irregularity of the neck from front.
2. Stand behind the patient and use both hands to palpate the neck.
4. Use the pads of the second, third and fourth fingers to press and roll the lymph nodes over the surrounding tissue to assess various characteristics of the lymph nodes. By using both hands (one for each side), you can note any asymmetry in size, consistency and mobility of lymph nodes.

## EXAMINATION OF LYMPH NODES

5. Start in the submental area and progress through the various lymph node chains. Any order of examination can be used, but a systematic approach will ensure no areas are missed:
- Submental
  - Submandibular
  - Tonsillar
  - Parotid
  - Pre-auricular
  - Post-auricular
  - Superficial cervical
  - Deep cervical
  - Posterior cervical
  - Occipital
  - Supraclavicular – left supraclavicular region is where Virchow's node may be noted (associated with upper gastrointestinal malignancy)

Take caution when examining the anterior cervical chain that you do not compromise cerebral blood flow (due to carotid artery compression). It may be best to examine one side at a time here.



## LYMPH NODES OF THE HEAD AND NECK

