

Radical Neck Dissection

WHAT IS RADICAL NECK DISSECTION?

This is an operation for cancer to remove all lymph nodes and associated non-vital tissues -- muscles, nerves, and blood vessels -- on one side of the neck. Carried out under general anesthesia, the procedure may take several hours. Radical neck dissection may also be carried out as part of a more extensive operation to remove a primary tumor. A tracheostomy may be performed to assist breathing postoperatively. Average hospital stay is 10-14 days.

RISKS AND BENEFITS

Chains of lymph nodes in the neck form a barrier to malignant cells. By removing all the nodes on the affected side the possible sites of metastasis are also removed. This reduces the risk of recurrence of cancer. Radical neck dissection is a major procedure and as such entails a degree of risk. The removal of nerves will affect sensation and movement to some degree in the lower face, arm, and trunk on the affected side.

WHY IS IT PERFORMED?

Radical neck dissection may be performed when a malignant growth is found in the neck. It is also done when a primary tumor of the face or neck has metastasized (spread) to lymph nodes of the neck. Removal of these secondary growths treats the cancer and helps prevent further metastasis. Lymph nodes form an important part of the body's defenses against disease. If malignancy starts to spread, the nodes in the neck will contain cells from the tumor. Malignant cells can also be found in the muscles that form the lymph node beds and in the associated blood vessels. Enlarged nodes can be felt on manual examination. Sometimes, they are the first sign of unsuspected cancer of the face so a thorough diagnostic examination is made. This may include viewing the upper respiratory and digestive tracts with laryngoscope, bronchoscope, and esophagoscope. CT scans of the neck are made.

PREPARING FOR SURGERY

You may be admitted to the hospital a few days before surgery. You will be given a thorough physical, and blood and urine samples will be taken for analysis. Blood will also be cross-matched in case a transfusion is needed. A physiotherapist may visit to show you some breathing exercises that will be continued after surgery to reduce the risk of postoperative complications. Medical and nursing staff will discuss your postoperative treatment with you.

ON THE DAY OF SURGERY

You will have nothing to eat or drink after midnight. You will be asked to take a shower or bath and wash your hair. All make-up, jewelry, and dentures must be removed. If you are a man, a nurse will shave your skin along the line of the jaw from the mouth to behind the ear, and down to the level of the nipple on the affected side. About an hour before surgery you will be given your premedication to relax you.

IN THE OPERATING ROOM

The surgeon will work with you lying, anesthetized, on your back, head turned to the opposite side. A tracheostomy may be made before the procedure begins. The incision is made in the neck. The successive layers of muscle and fat that form the node beds are freed of their attachments and divided. Associated nerves and blood vessels are tied and divided. When all the node-bearing tissues have been removed from the neck, the incision is sutured and a wound drain inserted to prevent a build-up of fluids and to improve healing. You will be taken to the recovery room briefly for observation as you come out of the anesthetic. Oxygen may be given via the tracheostomy and fluids by intravenous infusion.

BACK IN YOUR ROOM

Your vital signs (pulse, temperature, blood pressure, respiration) will be monitored at regular intervals for several hours. You will feel sleepy, sore, and possibly nauseous. Painkilling injections will be given as needed as well as something for the nausea. Speech will be difficult at first, and if a tracheostomy tube is in your throat speech will not be possible. A Magic Slate or pencil and paper will be provided so that you can communicate. You will be positioned with head and shoulders elevated to reduce swelling and make breathing easier. You may be able to get out of bed on the first postoperative day, and begin to take fluids orally. Pressure bandages may be applied to improve healing of the operative site. The physiotherapist will help with breathing to keep the lungs clear. A routine of gentle exercises will help mobilize your neck and shoulders. By performing these gently and for a short time at first, you should be able to regain adequate function. Sutures are removed in about a week. Your surgeon will discuss with you the cosmetic options of a prosthesis and reconstructive surgery, and you may have a visit from a counselor or member of a support group.

GOING HOME

On leaving the hospital you will be advised to take it easy for a few weeks. Continue with your exercises, which will strengthen the remaining muscles. It is advisable to avoid unnecessary bending and heavy lifting. You should be able to return to work after a few months. It takes time to come to terms with surgery for cancer that affects your appearance. Do not hesitate to call on support groups for advice, help or -- equally important -- someone to talk to and express your feelings.

POSSIBLE COMPLICATIONS

If internal hemorrhage occurs, you will be taken to the operating room and the incision will be re-opened to trace the source of bleeding. Occasionally, fluid leaks from a divided lymphatic vessel. If this does not stop spontaneously, surgical repair may be necessary. Intracranial (inside the head) pressure may become raised after the sacrifice of large veins which channel blood away from the head. The head of the bed is elevated and any pressure bandages removed until the build-up of fluid is relieved. Edema (swelling) of the neck may obstruct the trachea or esophagus. A nasogastric tube may be passed temporarily for feeding. If breathing becomes too difficult, a tracheostomy may be performed.