SURGERY
Sentinel Lymph Node Biopsy

- A second method of identifying the SLN involves using a blue dye that is injected into the skin around the melanoma. After several minutes, a surgeon makes a small incision in the identified lymph node area.

- The lymph nodes are then checked to find which one(s) turned blue or became radioactive.

- When the sentinel node has been found, it is removed and looked at under a microscope.

- Since only one or two nodes are analyzed the pathologist can intensely examine the nodes with serial sections and immunohistochemistry.

(courtesy of Dermatology Clinic: Bellevue Hospital Center)
Wide Excision

- For this procedure, the skin is first anesthetized with a local anesthetic.

- The tumor is then cut out with a surgical knife, along with some surrounding normal skin.

- The remaining skin is carefully stitched back together.
  - This will leave a scar.
Wide Excision

- Excisional biopsy permits postoperative pathologic assessment of the tumor and microscopic margins of the excision (i.e., how close the cut edge is to the tumor cells).

- The width of margin assessment is dictated by the location of the lesion and the presence or absence of high risk factors.

- It is much more difficult to obtain wide margins in areas such as the face, hands and feet.
Curettage and Electrodessication

• This treatment removes the cancer by scraping it with a curette (a long, thin instrument with a scraping edge on one end), then treating the area where the tumor was located with an electric needle (electrode) to destroy any remaining cancer cells.

• This process is often repeated.

• Curettage and electrodessication is a good treatment for small basal cell and squamous cell cancers.

• Drawbacks:
  – It will leave a scar
  – It does not permit pathologic assessment of the tumor and microscopic margins
Mohs Micrographic Surgery

• Using the Mohs technique, the surgeon removes a thin layer of the skin that the tumor may have invaded and then checks the sample under a microscope immediately.

• If cancer cells are seen, deeper layers are removed and examined until the skin samples are found to be free of cancer cells.

• This process is slow, but it means that more normal skin near the tumor can be saved. This creates a better appearance after surgery. This is a highly specialized technique that should be used only by doctors who have been trained in this specific type of surgery (i.e., completed a Mohs fellowship).
Mohs Micrographic Surgery

• Its use is indicated for the treatment of primary basal cell carcinomas when they occur at sites known to have a high initial-treatment failure rate with traditional methods (e.g., periorbital area, nasolabial fold, nose-cheek angle, posterior cheek sulcus, pinna, ear canal, forehead, scalp, or tumors arising in a scar).

• Mohs micrographic surgery may also be indicated for tumors:
  – With poorly defined clinical borders
  – That are recurrent
  – With diameters more than 2 cm
  – With histopathologic features showing morpheaform or sclerotic patterns
  – Arising in regions where maximum preservation of uninvolved tissue is desirable (such as the eyelid, nose, finger, and genitalia)