From Scalpel to Survivor – The Surgical Journey in the Road of Breast Cancer

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Elements to Address in Breast Surgery

- Breast
- Axillary Staging
- Patient's preference

Elements to Address in Breast Surgery

Breast

- Breast Conservation Surgery
- Mastectomy

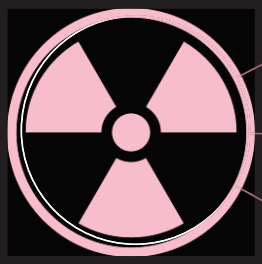
Breast Conservation Surgery

Partial mastectomy / Lumpectomy

Partial Mastectomy/ Lumpectomy

- Traditional technique - removing the tumor along with a small rim of normal tissue with or without overlying skin.

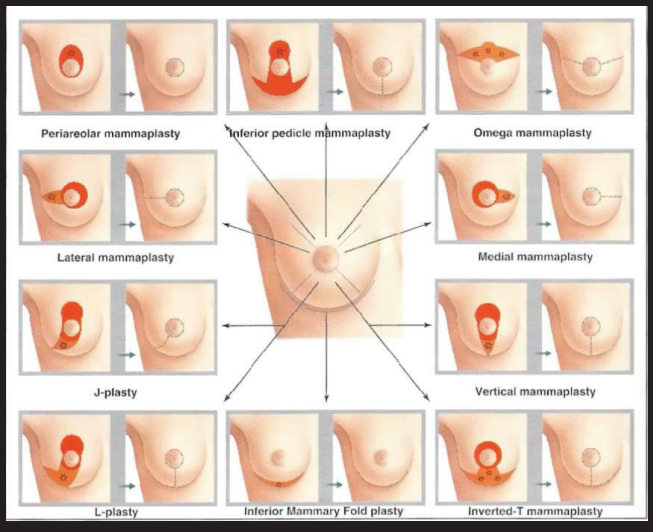
Effects of Radiation on the Breast



- Dosing Distribution
  - Discrepancies
  - Nonhomogeneous
  - Late Reactions
  - Poor Aesthetics
- Decreased Blood Flow
  - Risk of Infection
  - Wound Healing Delay
- Fibrosis
  - Deformities
  - Poor Aesthetics
  - Retraction

Partial Mastectomy/ Lumpectomy 2.0

- Methodical Incision Placement



Partial Mastectomy/ Lumpectomy 2.0

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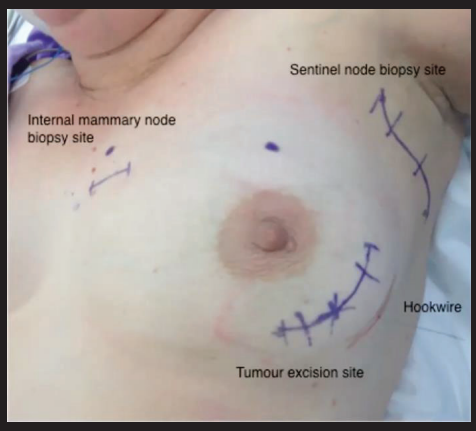
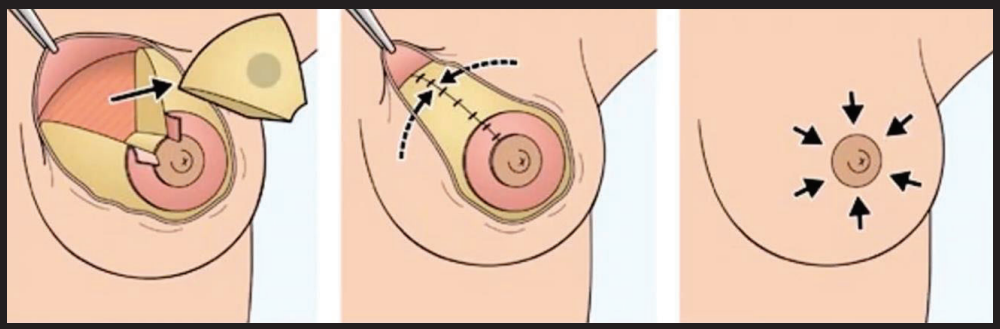


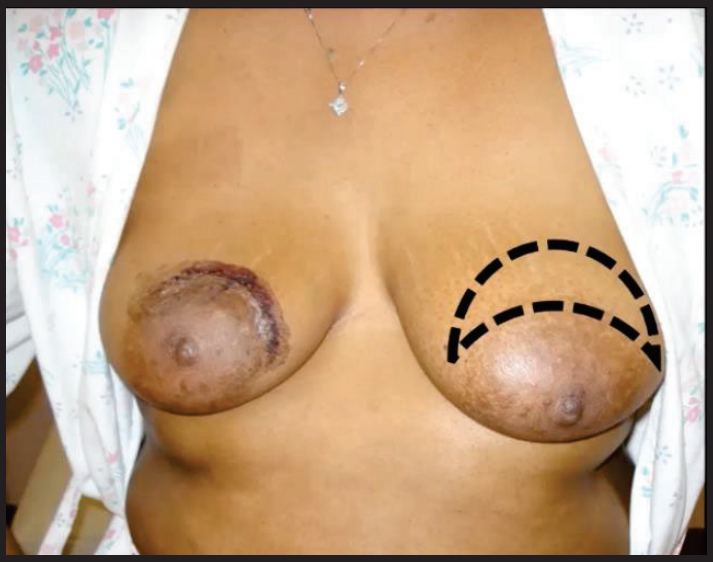
Partial Mastectomy/ Lumpectomy 2.0

- Consideration for tissue re-arrangement techniques



Partial Mastectomy/ Lumpectomy 2.0

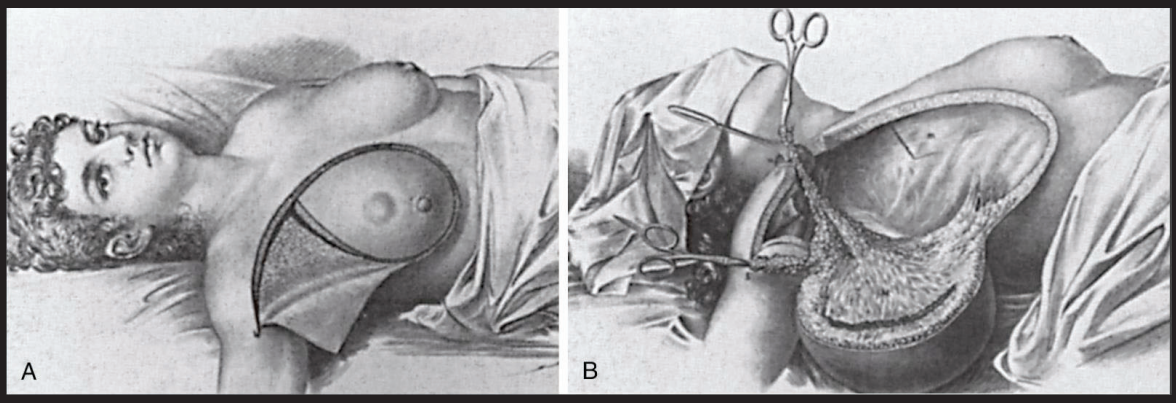
- Symmetry



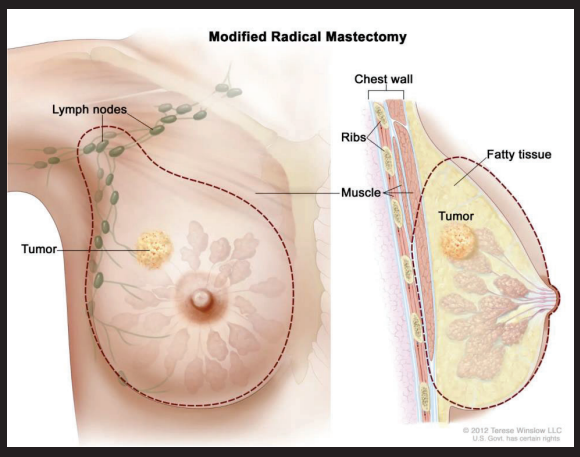
Mastectomy

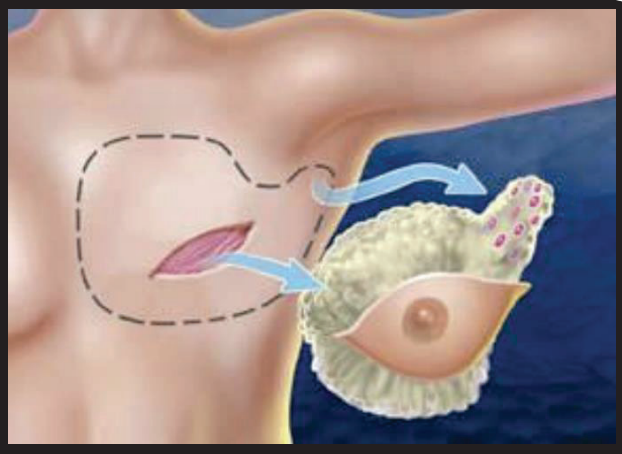
- Modified Radical Mastectomy
- Simple Mastectomy
- Skin Sparing Mastectomy
- Areola Sparing Mastectomy
- Nipple Sparing Mastectomy

Radical Mastectomy

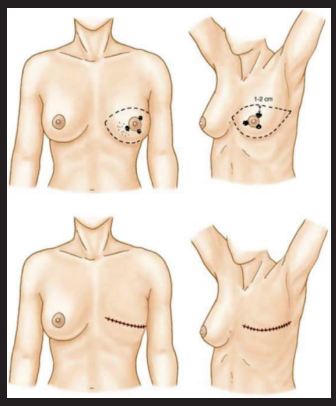


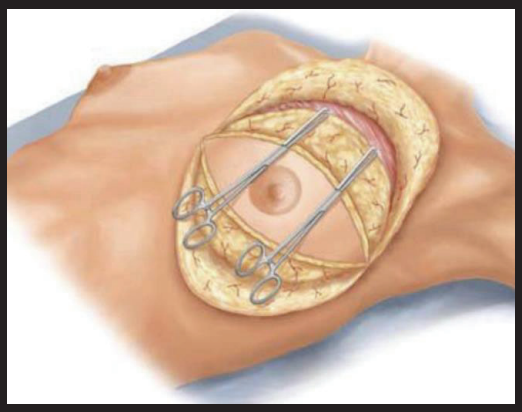
Modified Radical Mastectomy



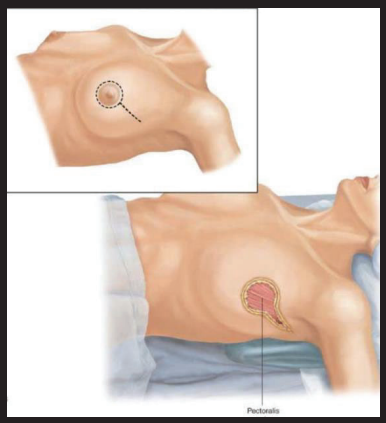


Simple Mastectomy

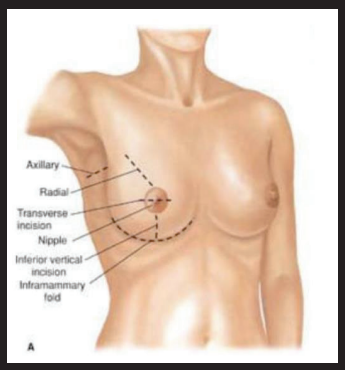




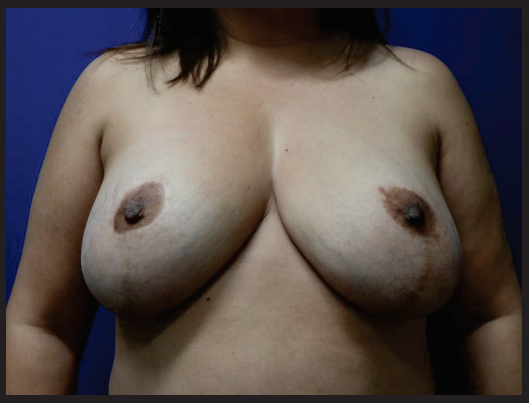
Skin Sparing Mastectomy



Nipple Sparing Mastectomy



Nipple Sparing Mastectomy With Skin Mastopexy



Elements to Address in Breast Surgery

- Breast
- Axillary Staging
- Patient's preference

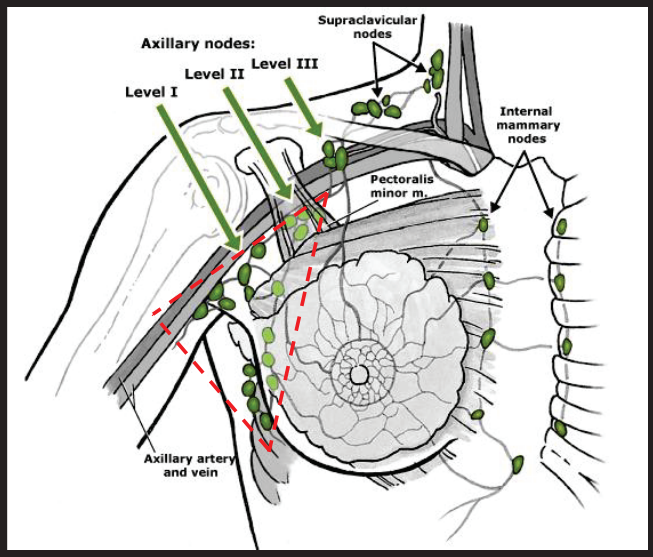
Elements to Address in Breast Surgery

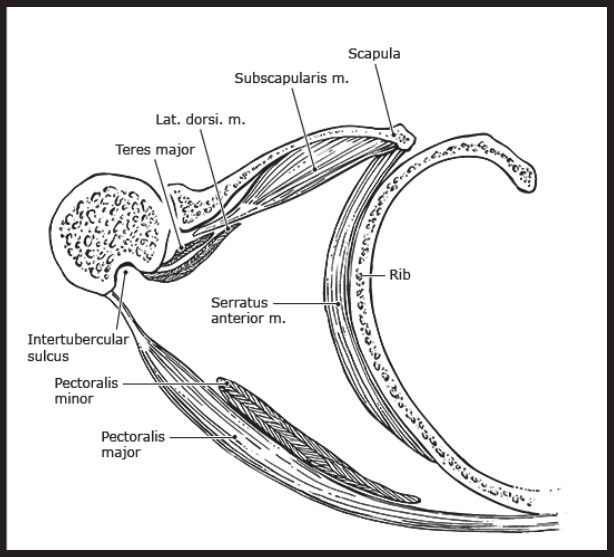
- Axillary Staging
  - Axillary Dissection
  - Sentinel Lymph node biopsy
  - Omission

Why is axillary staging important?

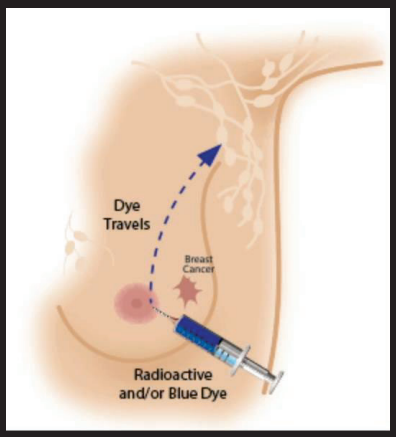
- Presence of axillary node metastasis and the size of the primary tumor are the two main prognostic factors.
- Used to select best adjuvant treatment plans

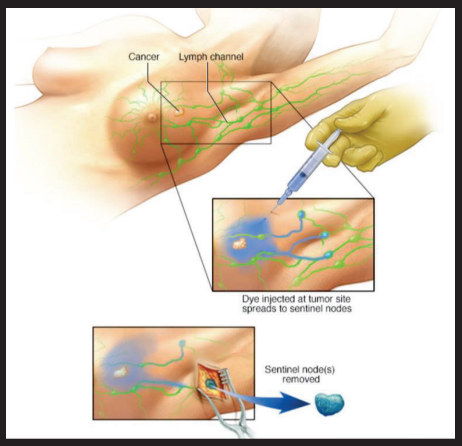
Axillary Dissection

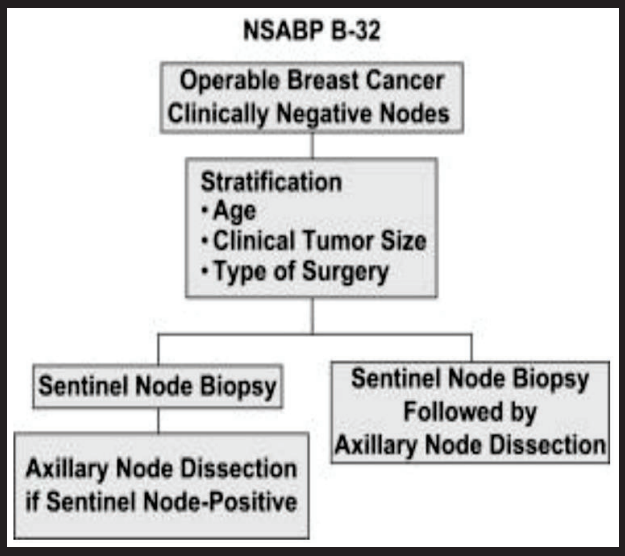




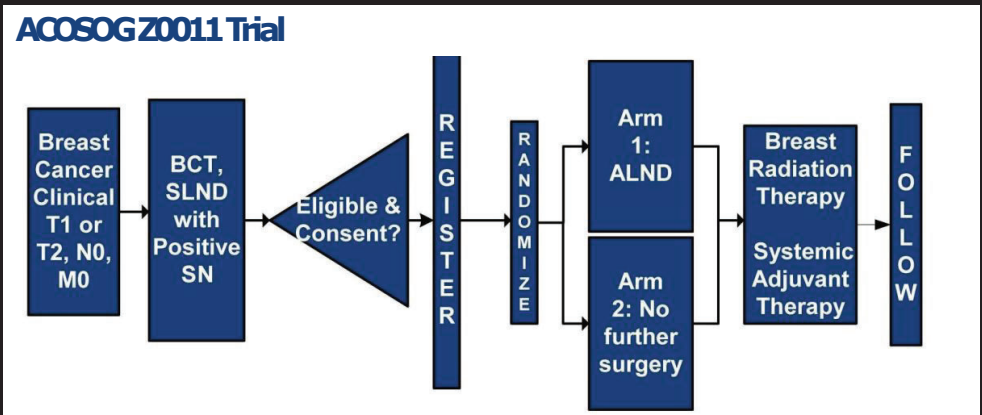
Sentinel lymph node biopsy







- N=5611
- SLN identification rate was 97%
- False negative rate on 9.7%



- N=891 patients enrolled
- From 1999-2004
- Published in 2010 showing no benefit for ALND in women with limited SLN disease

Omission

- The *Choosing Wisely* initiative recommended the omission of routine sentinel lymph node biopsy (SLNB) in patients ≥ 70 years of age, with clinically node-negative, early stage, hormone receptor (HR) positive and human epidermal growth factor receptor 2 (Her2) negative breast cancer in August 2016

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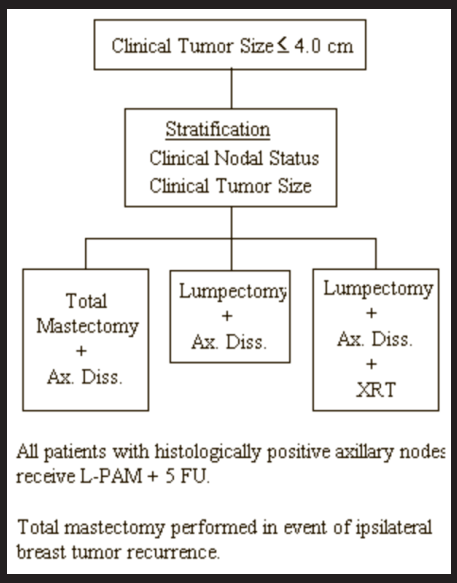
Elements to Address in Breast Surgery

- Patient's preference

Not all breast cancer surgeries look the same – which one is better?

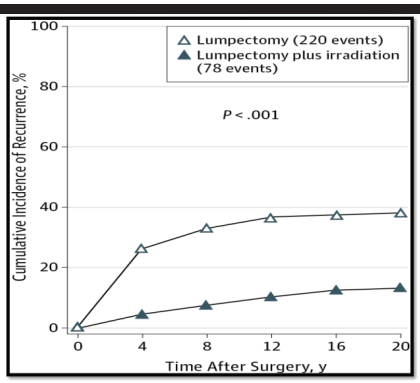
- Breast cancer can be safely treated with breast conservation surgery + radiation or with mastectomy



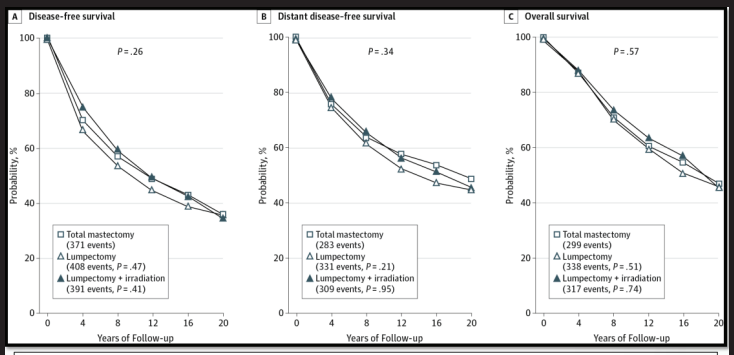
NSABP B-06 Trial

2163 women enrolled August 1976 – January 1984

1851 treated according to protocol



Fisher B et al. Twenty year follow up of a randomized trial comparing total mastectomy, lumpectomy and lumpectomy plus irradiation for the treatment of invasive breast cancer. N Engl J Med 2002; 347(16)L1233-1241.



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Mastectomy vs Breast Conservation Therapy How do we decide?

- **Everyone** is a candidate for mastectomy
- Not everyone is a candidate for partial mastectomy

Possible Contraindications for Partial Mastectomy

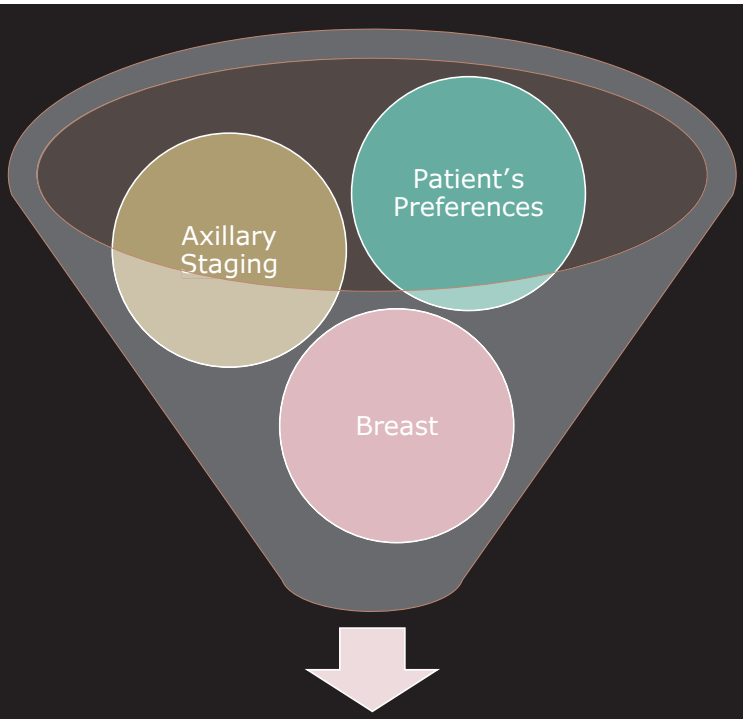
- Multicentric Disease*
- Diffuse malignant calcification
- Inability to obtain clear margins
- Inability to undergo radiation therapy
- Patient's preference (does not desire a partial mastectomy)

Counseling For Breast Conservation Therapy

- Can a partial mastectomy be safely done?
- What is the breast to tumor ratio?
- Is the patient a candidate for neoadjuvant chemotherapy? (And would it help?)
- Does the patient have a genetic predisposition to cancer?
- Can the patient receive radiation therapy; Is the patient willing to receive radiation therapy?

Counseling For Mastectomy

- Do they understand that survival is the same?
- Patient understands that mastectomy will not change recommendations for systemic therapy?
- Do they desire reconstruction? *Are* they a candidate for reconstruction?
- Do they understand that reconstruction is NOT the same as a cosmetic augmentation?
- Do they understand that radiation may still be recommended?
- Can the skin, areola, or nipple be spared?



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