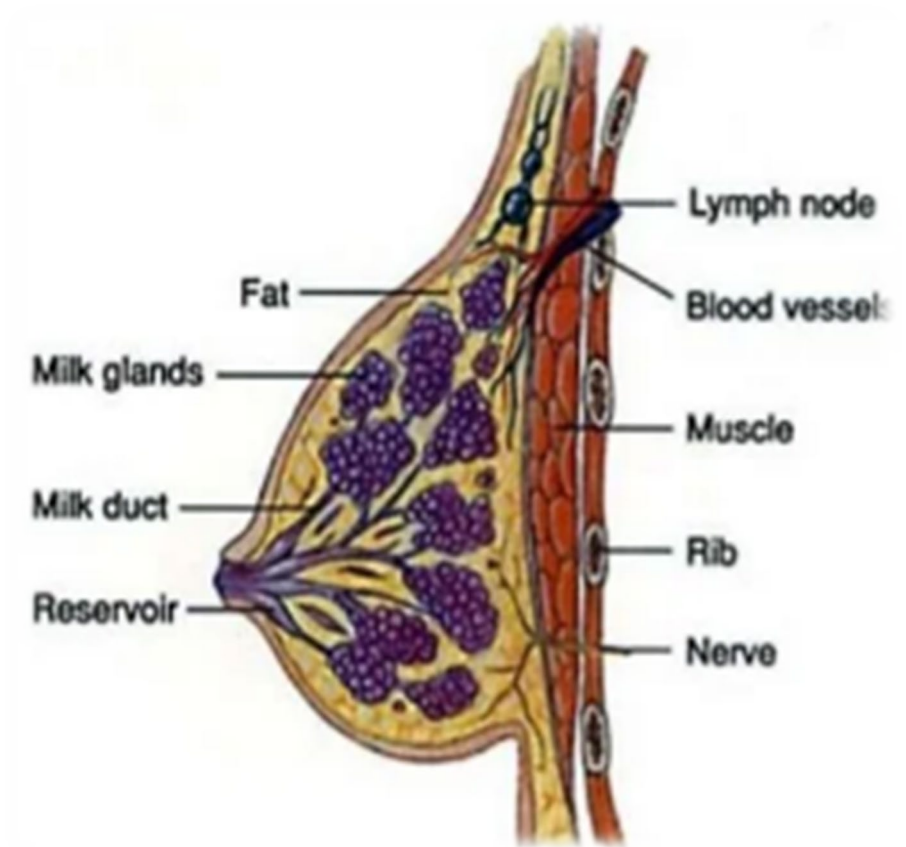


Breast Surgeries & Procedures

Daniel A. Howard, MD
Mercy Health
Lourdes Hospital

Breast Anatomy

- Ligaments attach the breasts to the chest wall on either side of the breastbone
- The breasts have no muscle tissue
- Circle of 15-20 lobes located in each breast
 - Each lobe is made-up of many lobules
- At the end of the lobules are tiny bulb like glands, or sacs
 - These sacs produce milk in response to hormonal signals
- The lobes, lobules, and glands are connected to ducts
 - These ducts deliver milk to openings in the nipples
- A layer of fat surrounds the glands and ducts and extends throughout the breast
 - This fat is what gives the breasts their shape and size
- The areola is the darker-pigmented area around the nipple



Diagnostic Procedures

Physical Exam

- Breast Exam

Imaging

- Mammogram
- Ultrasound
- CT
- MRI

Tumor Markers

- ER
- PR
- HER2

Pathology

- Incisional Biopsy
- Lumpectomy

Breast Surgeries

Options in the Surgical Treatment of Breast Cancer

Breast Conserving Surgery

- Partial Mastectomy
 - Lumpectomy
 - Segmentectomy
 - Quadrantectomy
 - Wide Local Excision
 - Tylectomy

Mastectomy

- Total Simple Mastectomy
- Radical Mastectomy
- Extended Radical Mastectomy
- Super Radical Mastectomy
- Mastectomy with contralateral Prophylactic Mastectomy

Techniques

- Oncoplastic – combines plastic surgery techniques w/ the cancer surgery to give a better cosmetic outcome
- Mammoplasty - a group of surgical procedures, the goal of which is to reshape, resize, or otherwise modify the appearance of the breast
 - Augmentation
 - Reduction
 - Reconstruction
- Mastopexy – breast lift (removal of excess skin)
 - Wise pattern – anchor-shaped incision that goes around the chest and below the breast
 - LeJour – incision goes around the areola and down
 - Donut (peri—areolar) – incision goes around the areola only

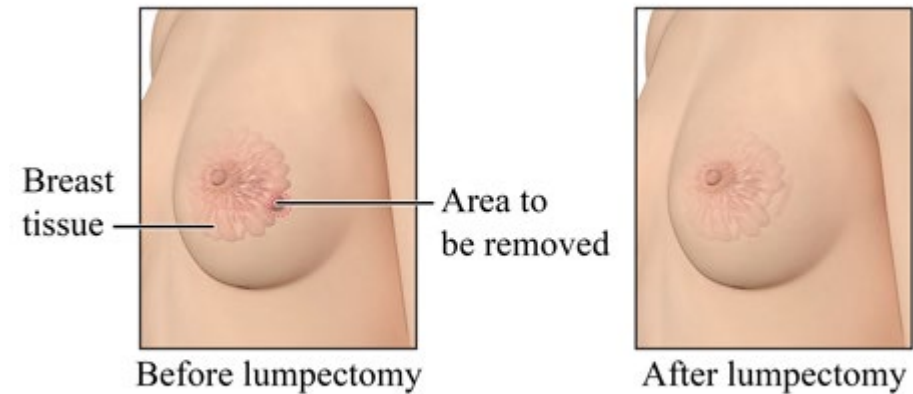
Deciding Factors for Surgical Procedures

- Tumor size
- Behavior (invasive vs insitu)
- Tumor location
- Number of tumors
- Family history
- Lymph nodes
- Hormone receptors (HER2, ER, PR)
- Grade

Partial Mastectomy

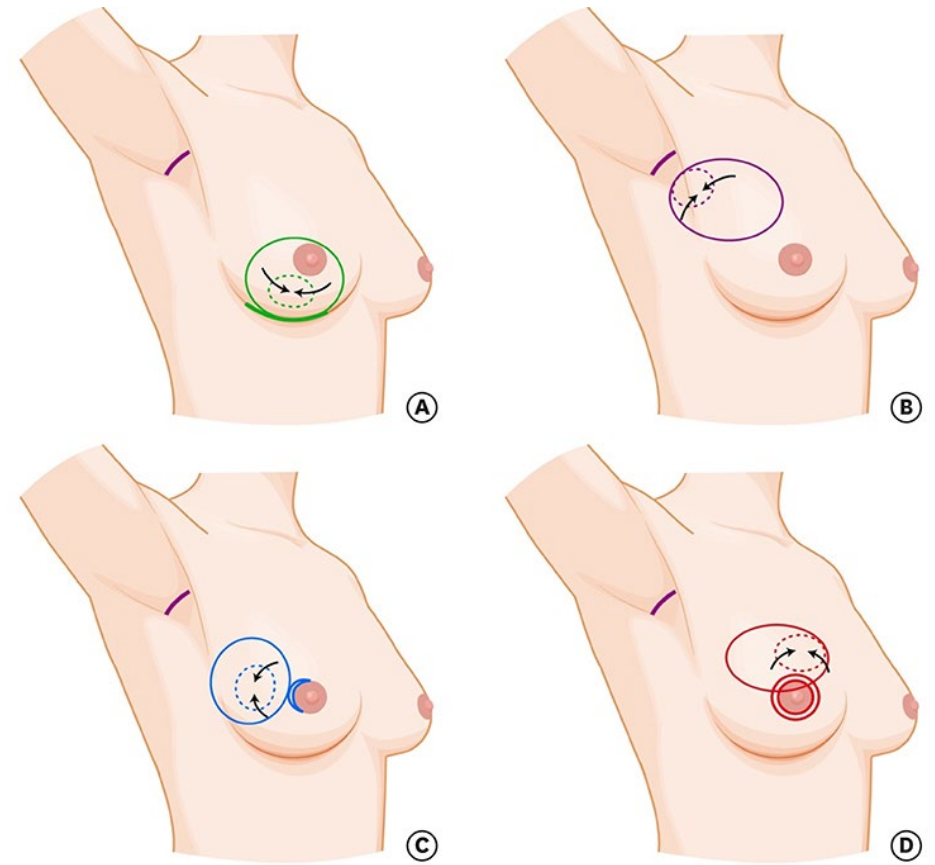
Partial Mastectomy - Lumpectomy

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph node procedure?
- Reconstruction Surgery?



Aesthetic Scar-less Procedures

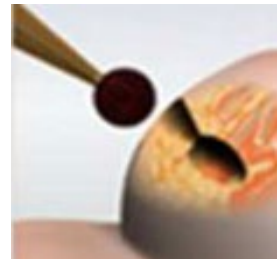
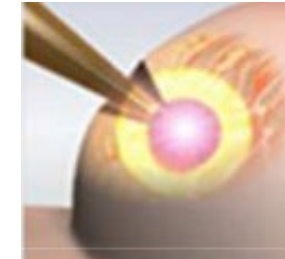
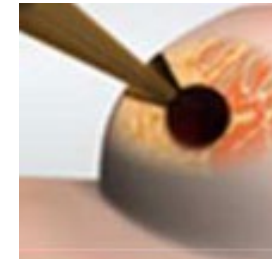
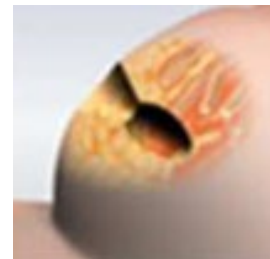
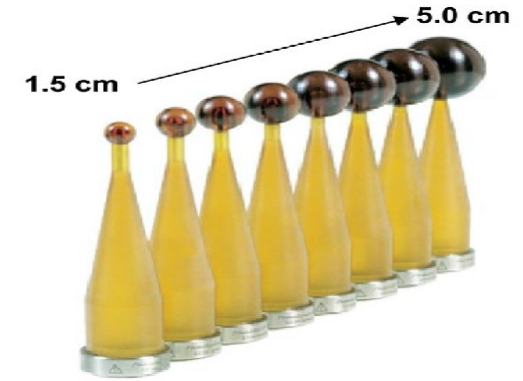
- Inframammary fold (A)
- Axillary area (B)
- Periareolar line (C, D)
- What is the benefit?



Intra-Operative Radiation Electronic Brachytherapy

Delivers low-energy photon therapy

- Who is a candidate?
- Why is this performed?
- What is the benefit?



Segmental Mastectomy

- Wedge resection
- Quadrantectomy
- Tylectomy
 - Who is a candidate?
 - Why is this performed?
 - What is the benefit?
 - How is it performed?
 - What is removed?
 - Lymph node procedure?
 - Reconstruction Surgery?



Wide Excision



Quadrantectomy

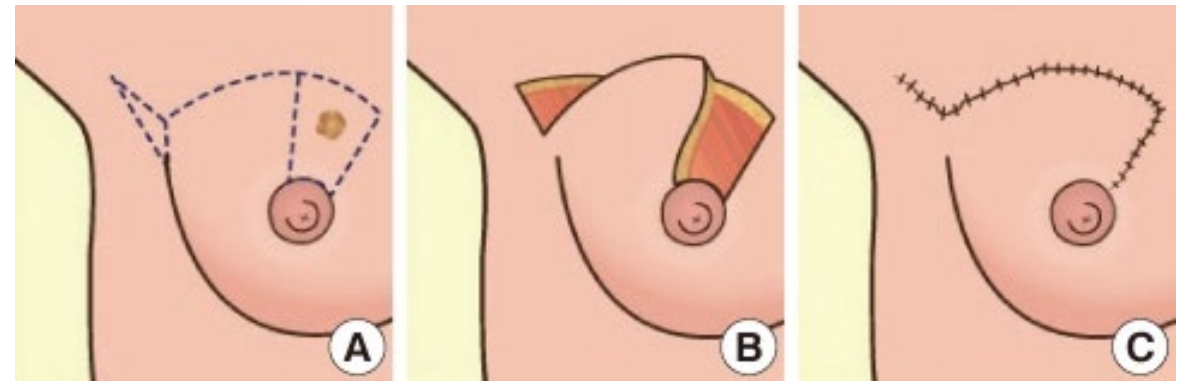
Glandular Flap

Why is this performed?

What is the benefit?

How is it performed?

Reconstruction Surgery?



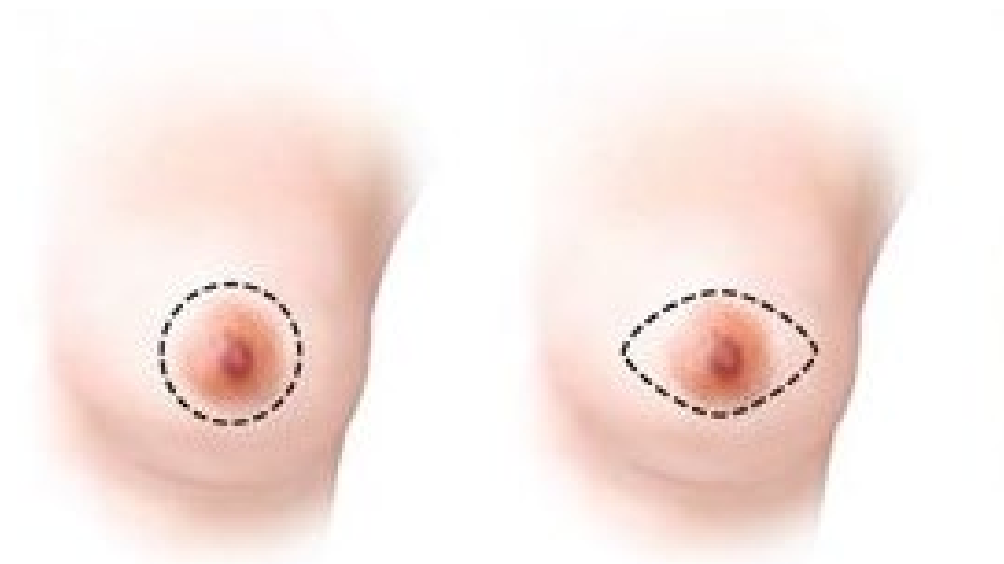
Subcutaneous Mastectomy

Subcutaneous Mastectomy

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph nodes procedure?
 - Sentinel procedure
 - Axillary dissection
- Reconstruction Surgery?

Skin Sparing

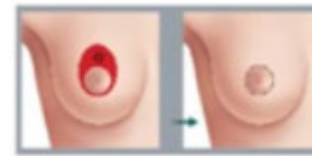
- Skin/tissue remains
 - Breast/mammary tissue removed
 - Areola and nipple removed
- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
- Reconstruction Surgery?



Nipple Sparing

Volume Displacement Techniques

- Skin/tissue remains
 - Breast/mammary tissue removed
 - Areola and nipple remains
- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
- Reconstruction Surgery?



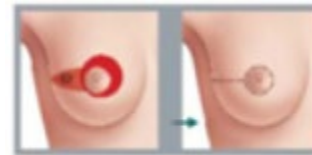
Periareolar



Inferior Pedicle



Omega



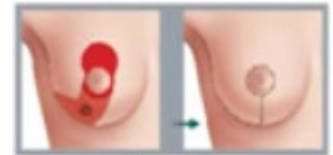
Lateral



Medial



J-plasty



L-plasty



Vertical



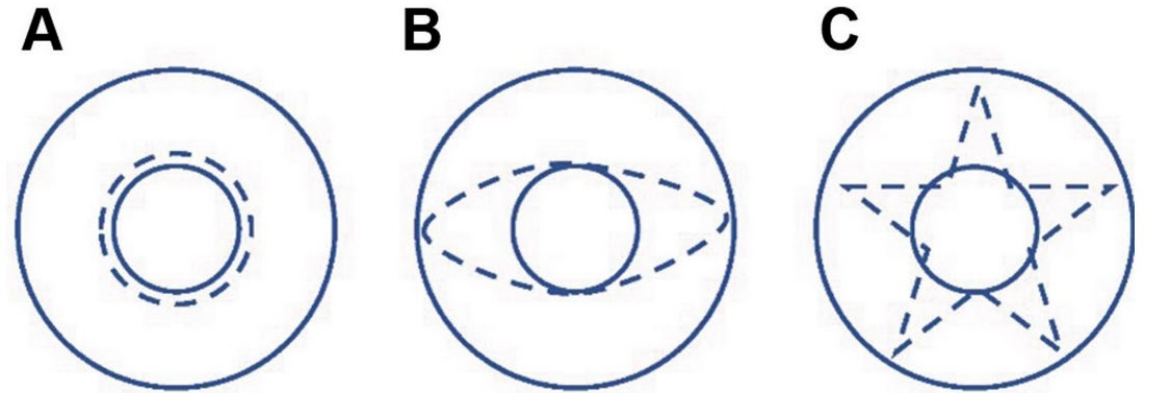
Inferior Mammary Fold



Inverted T

Areola Sparing

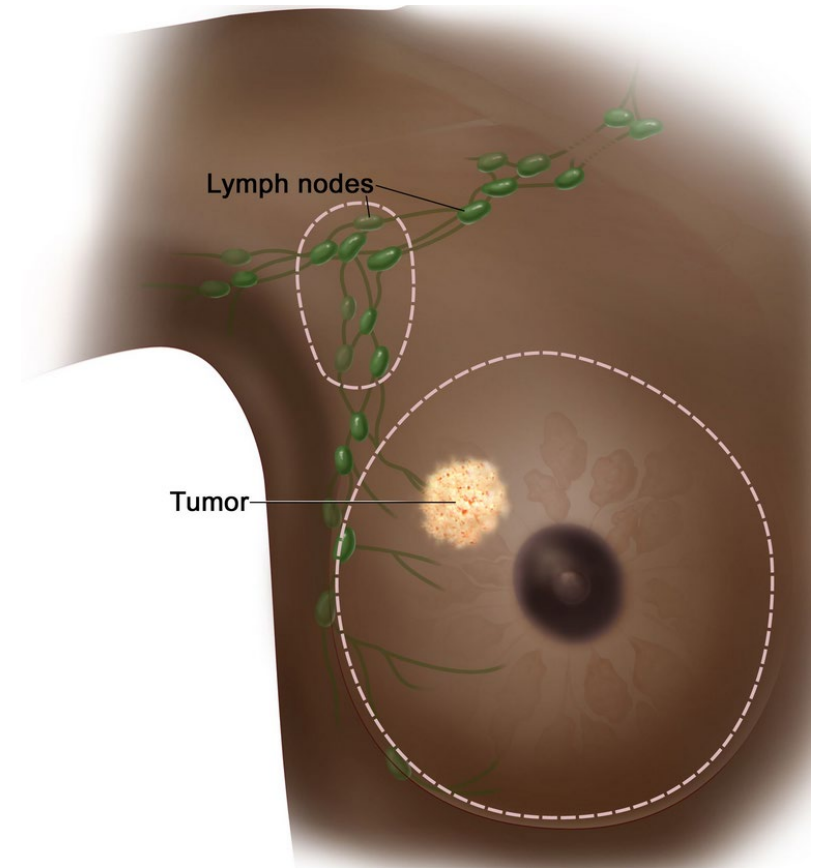
- Skin/tissue remains
 - Areola remains
 - Breast/mammary tissue removed
 - Nipple removed
- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
- Reconstruction Surgery?



Mastectomy

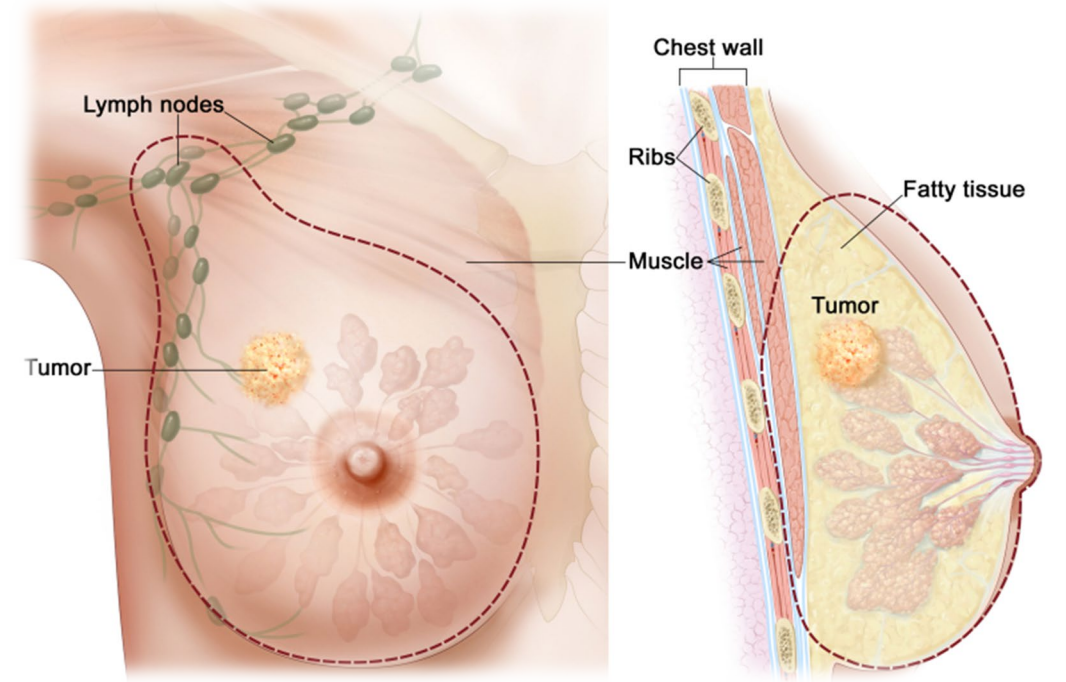
Total Simple Mastectomy

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph node procedure?
 - Sentinel procedure
 - Axillary dissection
- Reconstruction Surgery?



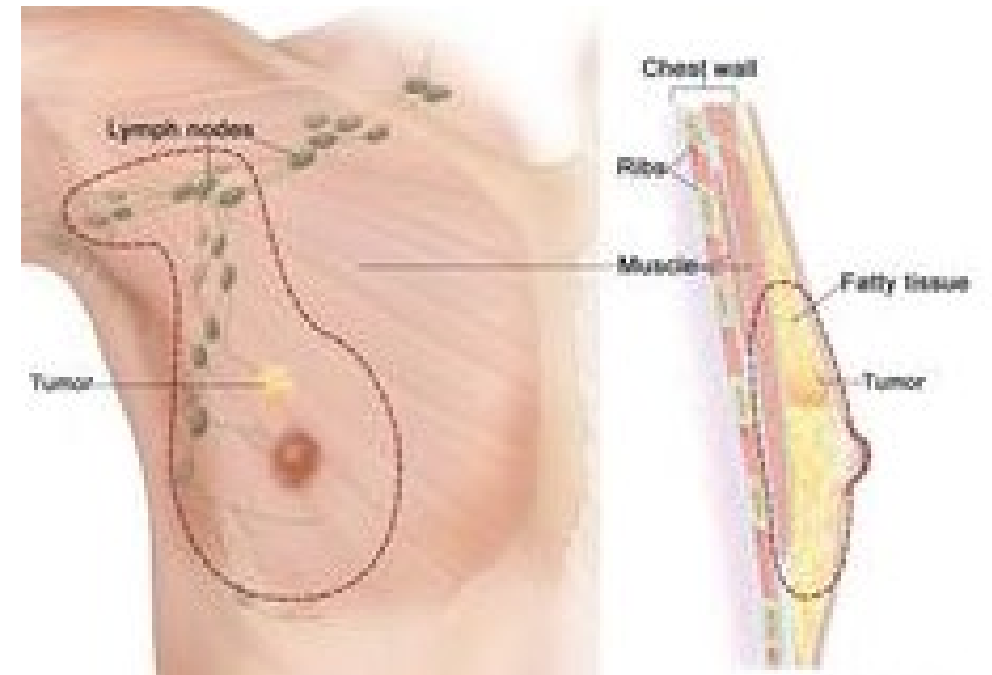
Modified Radical Mastectomy

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph node procedure?
 - Sentinel procedure
 - Axillary dissection
- Reconstruction Surgery?



Radical Mastectomy

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph node procedure?
 - Sentinel procedure
 - Axillary dissection
- Reconstruction Surgery?



Extended Radical Mastectomy vs Super Radical Mastectomy

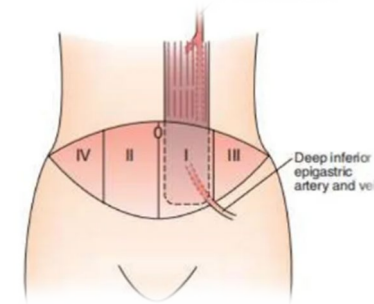
- What is the difference
- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Lymph node procedure?
 - Axillary dissection
 - No sentinel lymph node procedure
- Reconstruction Surgery?

Mastectomy with Contralateral Breast

- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
- Reconstruction Surgery?

Autologous Tissue Replacement

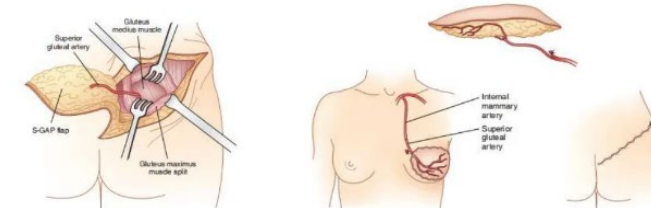
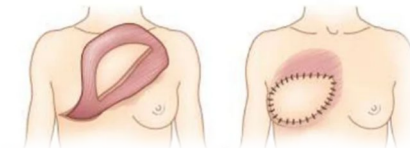
- Who is a candidate?
- Why is this performed?
- What is the benefit?
- How is it performed?
 - What is removed?
 - Tissue source?
- Reconstruction Surgery?



**Abdominal
(Gold Standard)**



Back



Gluteal

Questions?