BREAST REDUCTION AND RECONSTRUCTION FOR THE PRIMARY CARE PROVIDER

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Co-Founder Dermatology & Plastic Surgery of Arizona
OBJECTIVES

- Identify patients who would benefit from reduction or reconstruction
- Learn the basics about the insurance qualifications/documentation for reduction and reconstruction
- Learn about the different techniques for reduction and reconstruction
- Review gynecomastia and surgical options
- Review of coding of reduction and reconstruction
**Breast Reduction**

- **Who is a candidate?**
  - Large breast
  - Back pain
  - Neck pain
  - Shoulder pain
  - Breast pain
  - Kyphosis
  - Bra strap grooving
  - Intertrigo/rashes or infection below breast
Breast Reduction

Who is NOT a good candidate?
- Obese (>35 BMI)
- Tobacco User
- Uncontrolled Diabetics
- Unrealistic expectations
INSURANCE REQUIREMENTS

- Most insurance companies require
  - 3 months of failed conservative therapy
    - NSAIDS
    - POSTURAL MANEUVERS
    - OMM/CHIROPRACTOR/MASSAGE
    - SPECIALTY BRAS
  - X-Rays
  - Mammograms (if indicated)
  - ***FUNCTIONAL IMPAIRMENT***
    - Limited, delayed or impaired physical movement, ability to perform task or coordinate activity

- Reduction Mammoplasty may not be covered by certain plans
Insurance requirement

- Referral to a specialist
  - Exam
  - Photos
  - Measurements
  - Letter and consultation to the insurance company
    - >22% on the Schnur scale
    - Documentation on what type of improvement is expected with the surgery
    - Supporting notes from the PCP or other provider treating symptoms
SCHNUR SCALE

- Formula using BSA
  - BSA = (W 0.425 x H 0.725) x 0.007184

- Must be over 22% for removal
- OR
- between 5-22% with extenuating circumstances (difficult to get approval)

- Example:
  5’2”
  125#
  BSA of 1.56
  Schnur of 289 grams BCBS, Cigna, UHC (Aetna 430 g)
<table>
<thead>
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PROCESS

- 30-45 days to get authorization
- Secondary appointment to set surgery date and answer questions
- Surgery takes between 3-5 hours
- Mostly done as outpatient or 23 hour observation
- Recovery time is 4-6 weeks
- 1 week off work for most unless very physical job
Reduction Techniques

- Liposuction (controversial)
- Vertical Mammaplasty
- Inverted-T (classic)
- Free Nipple Graft
LIPOSUCTION TECHNIQUE

- Not widely accepted by insurance companies for reduction
- Can be combined with skin excision
- Does not allow for pathology
- Can work well on breast with no ptosis and high fat content (small reductions only)
Vertical Mammaplasty

- “Lollipop” incision
- Better for smaller reductions <350g with little ptosis
- Younger patients with better skin envelope
INVERTED-T MAMMOPLASTY

- Classic Reduction technique (anchor scar)
- Key-Weiss pattern
- Allows for large reductions and greater ptosis correction
T-MAMMOPLASTY
(SCHNUR 320 G REMOVED 470 G)

Pre-op

Post-op
Pre-op

Post-op
FREE NIPPLE GRAFT

- Good technique for long pedicle
  - Sternal notch to nipple distance > 30 cm
- Giganotmastia – planned reduction of 2000g or more

Drawbacks
- Loss of ability to breast feed
- Loss of specialized sensation and possibly erectile function
- Increased risk of loss of pigment
COMPLICATIONS

- Wound healing issues
  - Necrosis of Nipple Areolar Complex
  - Tri-point delayed healing
- Changes in sensation
- Scarring
- Asymmetry
- Poor shape or size
- Infection
- Hematoma
- Seroma
NAC necrosis
CODING

ICD-9

- 611.1 Macromastia
- 611.71 Mastodynia
- 695.89 Intertrigo
- 723.1 Neck pain
- 723.9 Shoulder pain
- 724.1 Thoracic pain
- 724.2 Lumbar pain
- 737.10 Kyphosis
- 739.3 Shoulder grooving

CPT

- Reduction Mammoplasty 19318
  - -50 modifier for bilateral
  - left and right modifier
GYNECOMASTIA

- Male breast development
- Bi-Modal peak
  - Teens and elderly
- Cause of significant psychosocial embarrassment
- 1% of men will have malignancy
CLASSIFICATION OF GYNECOMASTIA

- Grade I: Small enlargement with localized to the areola
- Grade II: Moderate enlargement exceeding areola boundaries
- Grade III: Moderate enlargement exceeding with skin redundancy
- Grade IV: Marked breast enlargement with skin redundancy and feminization of the breast
CAUSES OF GYNECOMASTIA

Physiologic Gynecomastia

- Neonatal gynecomastia
  - transplacental passage of female hormones.
- Prepubertal gynecomastia (rare)
- Pubertal gynecomastia:
  - Peak incidence 14 years
  - Generally disappears by age 20.
- Old age
  - Related to a fall in testosterone levels

Pathologic Gynecomastia

- Hypogonadism
  - Testicular disorder or tumor
  - Klinefelter's syndrome.
- Endocrine disorders
  - Hyperthyroidism
- Metabolic disorders
  - cirrhosis
  - refeeding
- Neoplasms
- Male breast cancer
CAUSES

Pharmacologic Gynecomastia
- RX-
  - Cimetidine
  - Digitalis
  - Methadone
  - Clomiphene
  - chemotherapeutic agents
  - anti-retroviral agents
  - herbal remedies
  - chlorpromazine
- Anabolic steroids
- Marijuana
Insurance Requirements

- Vary more than with women
- Less provide procedure coverage
- Can be consider cosmetic

Lab work
- Thyroid
- Testosterone
- Beta-HCG
- Estrogen
- Liver/kidney function

- US/ mammogram
- Functional impairment and pain
- D/C medications
TECHNIQUES

- Liposuction alone (doesn’t address breast tissue)
- Sub Areolar resection
- Combo technique
- Reduction Mammaplasty
COMBO TECHNIQUE

Pre-op

Post-op
COURTESY OF DR MARSHALL
Coding

ICD-9

- Hypertrophy of breast 611.1
- Mastodynia 611.7
- Lump/mass in breast 611.72

CPT

- Biopsy of breast – incisional 19101
- Excision of breast mass 19120
- Mastectomy for gynecomastia 19140
- Subcutaneous mastectomy 19182
- Breast reduction 19318
- Suction assisted lipectomy, trunk 15877
  - Bilateral cases–50 modifier.
1 in 8 women will be diagnosed with breast cancer in their lifetime.

Breast cancer is the most commonly diagnosed cancer in women.

Breast cancer is the second leading cause of death among women.

Over 220,000 women in the U.S.A will be diagnosed with breast cancer each year.

More than 40,000 will die.

Over 2,150 men will be diagnosed with breast cancer each year.
Breast Reconstruction

Women’s Health and Cancer Rights Act (WHCRA)

- Approved on October 1, 1998
- Effective on January 1, 1999
- Requires postmastectomy insurance coverage of:
  - Breast and nipple reconstruction
  - Contralateral breast symmetry
- Supported by research showing breast reconstruction was:
  - More than a cosmetic procedure
  - Beneficial to quality-of-life
  - Important for breast cancer recovery
- Includes lumpectomy and benign breast tumors on some plans
**Who?**

- Any newly diagnosed cancer patient
- Any patient with previous mastectomy without reconstruction
- Any patient with prior reconstruction needing revision or contralateral breast treatment
- Any patient with previous lumpectomy with asymmetry
OVERVIEW OF BREAST CANCER TREATMENTS

- Localized treatments:
  - Surgery
  - Radiation therapy

- Systemic treatments:
  - Chemotherapy
  - Hormone therapy
  - Biologic therapy

- Additional considerations:
  - Breast reconstruction
  - Contralateral breast surgery
SURGICAL TREATMENT OF BREAST CANCER

- Indicated for nearly all women
- Main goals of surgery:
  - Remove cancerous tissue
  - Assess disease stage
- Surgical options:
  - Lumpectomy (breast-conserving)
  - Mastectomy
- Same expected long-term survival for both options
- Surgery also includes:
  - Sentinel lymph node biopsy
  - Axillary lymph node dissection
**Breast Reconstruction Overview**

- **Main goals of reconstruction:**
  - Restore breast mound
  - Maintain/improve quality of life

- **Process involves:**
  - Rebuilding the breast
    - Autologous tissues
    - Implants
  - Reconstructing the nipple-areola complex

- **Timing of reconstruction**
  - Immediate
  - Delayed
Lack of Patient Awareness About Breast Reconstruction Options

- A study found that 2 of 3 women with breast cancer were not told about their breast reconstruction options before surgery.
- Only 24% of surgeons referred >75% of their patients to a plastic surgeon.
- Patients who are informed about reconstruction are more likely to:
  - Consider their surgical options
  - Be satisfied with their choices
  - Improved quality of life
Reconstructive Surgical Options

- Autologous
- Implant Based
- Oncoplastic
Autoologous Reconstruction

- Transfer of patient’s own tissues to the chest, including:
  - Muscle
  - Skin
  - Fat
- Donor site options:
  - Abdomen (TRAM, DIEP, SIEA)
  - Back (Latissimus dorsi, T-Dap)
  - Buttocks (SGAP, LSGAP)
  - Thighs (TUG)
- Tissue flap options:
  - Pedicled
  - Free
# Autoologous Complications

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<th>General</th>
<th>Autologous-Specific</th>
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<tbody>
<tr>
<td>Donor site</td>
<td>• Infection</td>
<td>• Hernia</td>
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<tr>
<td></td>
<td>• Seroma</td>
<td>• Bulging</td>
</tr>
<tr>
<td></td>
<td>• Hematoma</td>
<td>• Weakness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wound breakdown</td>
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<tr>
<td>Tissue flap</td>
<td>• Infection</td>
<td>• Flap loss (partial or total)</td>
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<tr>
<td></td>
<td>• Skin necrosis</td>
<td>• Fat necrosis</td>
</tr>
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<td>• Contracture</td>
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<td></td>
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<td>• Vessel thrombosis</td>
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TRAM
LAT DORSI

Latissimus dorsi muscle

Skin, fat, and muscle moved to chest

© Healthwise, Incorporated
Implant Based Reconstruction

- Procedure typically begins at the time of mastectomy
- Implant-based options:
  - Single-stage implant reconstruction
  - Two-stage expander/implant reconstruction
  - Combined implant/autologous tissue reconstruction
- Implant or expander placement:
  - Subcutaneous
  - Totally submuscular
  - Partially submuscular (dual plane)
USE OF TISSUE EXPANDERS IN IMPLANT-BASED RECONSTRUCTION

- Temporary tissue expanders are:
  - Usually placed at the time of mastectomy
  - Used to expand the skin-muscle envelope
  - Injected with saline over a period of time through self-sealing ports

- Expanders allow for:
  - Directional expansion inferiorly
  - Better control of the implant pocket
  - Corrections during expander-to-implant exchange

- They are exchanged for permanent implants 3-12 months later.
# Implant Based Complications

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<th>Complications</th>
<th>General</th>
<th>Implant-Specific*</th>
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| **Early**     | • Infection  
• Seroma 
• Hematoma 
• Skin necrosis | • Extrusion  
• Exposure |
| **Late**      | • Infection | • Capsular contracture  
• Rippling 
• Leak/Rupture 
• Removal 
• Reoperation |
Comparison of Autoologous and Implant-Based Breast Reconstruction

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<tr>
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<th>TRAM flap</th>
<th>Latissimus flap</th>
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<td>83.3%</td>
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<td>Complication rates¹⁴</td>
<td>26.9%</td>
<td>67.9%</td>
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<td>Reoperation rates¹⁴</td>
<td>5.8%</td>
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<td>Aesthetic scores* (4-point scale)¹⁴</td>
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<td>Recovery time (days to normal activity)¹⁴</td>
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<td>Pain scores (post-op day 7)¹⁴</td>
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* Statistically significant
Safety of Breast Reconstruction and Cancer Treatment

- Research shows reconstruction is oncologically safe
- No effect has been found on:
  - Detection of cancer recurrence
  - Delivery of adjuvant therapies
- Implants have not been linked to cancer or other diseases
- Higher 5-year survival than mastectomy alone, possibly due to:
  - Increased follow-up
  - Psychosocial benefits
ONCOPLASTIC TECHNIQUES

- Newest in reconstructive options
  - Reduction
  - Lift
  - Implant/augmentation
  - Free Fat Transfer
  - Combination of the above
Oncoplastic Breast Reduction Examples

"Vertical" Breast Oncoplastic Reduction-Reconstruction for Lateral Breast Cancer

Lateral Breast Cancer

Removed Breast Tissue Includes Cancer + Margin

"Vertical" Breast Reduction Scars

"Weiss" Breast Oncoplastic Reduction-Reconstruction for Medial Breast Cancer

Medial Breast Cancer

Removed Breast Tissue Includes Cancer + Margin

"Weiss" Breast Reduction Scars

Mychalyshyn (2011)
LUMPECTOMY RECONSTRUCTION USING LIFT/REDUCTION

http://westcountyplasticsurgeons.wustl.edu/en/Gallery#BreastReconstructionforLumpectomy
Coding

ICD-9
- Any breast cancer diagnosis 174.9
- Personal history of breast cancer V10.3
- Family History of breast cancer V16.4
- Acquired absence of breast V45.71
- Asymmetry of breast 611.89

CPT
- Immediate/delayed recon TE 19357
- Reconstruction delayed with implant 19342
- Recon Imm with implant 19340
- Lat Dorsi flap 19361
- TRAM/DIEP flap 19367
REFERENCES

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REFERENCES


REFERENCES

QUESTIONs
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