

Gender Affirming Chest Surgery

CANCER AND SCREENING CONSIDERATIONS

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Pronouns: she/her

18 October 2024

6th Annual Breast Cancer Symposium



Icahn
School of
Medicine at
Mount
Sinai

WPATH WORLD PROFESSIONAL
ASSOCIATION for
TRANSGENDER HEALTH

Photo credit

- Surgeons' names labeled below photos (in **grey**)
- Thanks to Drs Elan Horesh & Yasmina Zoghbi
- Other photos from gender surgery publications & public domain

Gender affirming chest surgery

- Transfeminine – breast augmentation
- Transmasculine – breast reduction / mastectomy
- Goals:
 - Improve patient's comfort with self
 - Relieve gender dysphoria
 - Achieve a natural result
 - Minimize complications

Cancer and screening considerations after gender affirming chest surgery

Chest Feminization

BREAST AUGMENTATION

Chest feminization goals

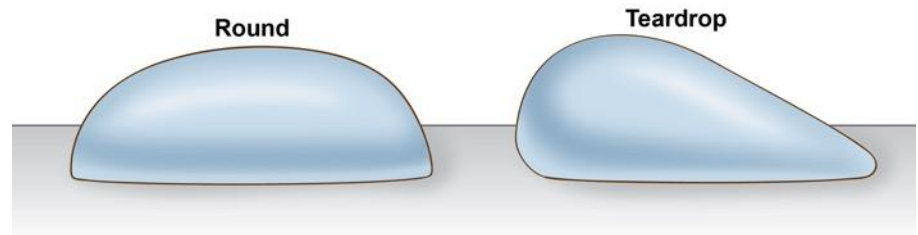
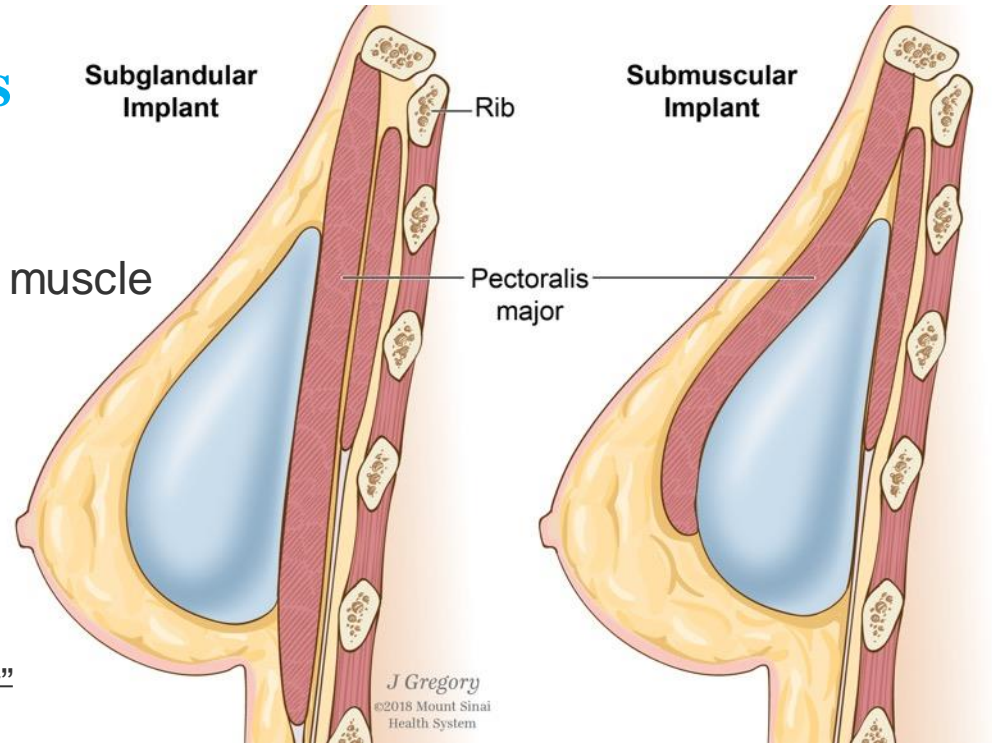
- Increase breast size
- Natural appearing result
- Minimize scarring
- Minimize interference with future breast cancer screening

Chest feminization options

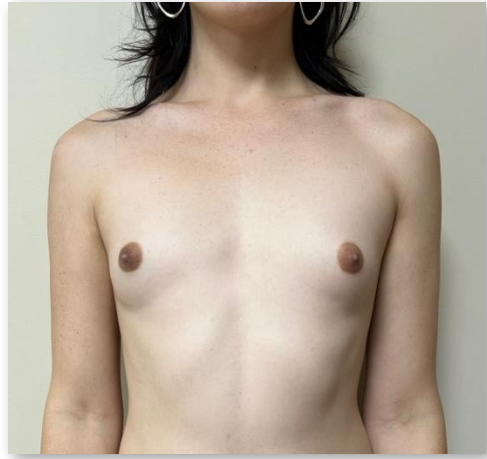
- Breast augmentation with implants
- Lipofilling (fat grafting to breasts)

Augmentation with implants

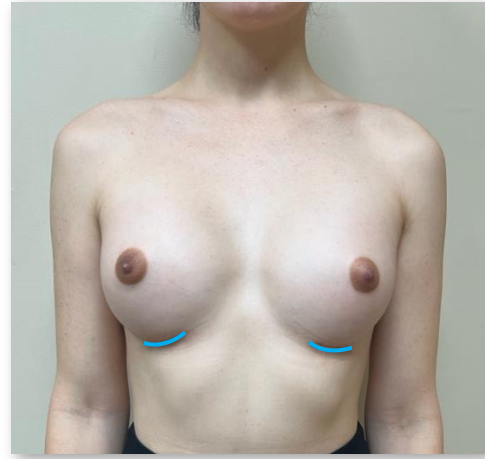
- Position
 - Subglandular/subfascial – over the muscle
 - Subpectoral – under the muscle
- Type
 - Silicone/saline
 - Round/shaped
 - Shaped = “teardrop”, “gummy bear”
 - Smooth/textured
- Incision placement



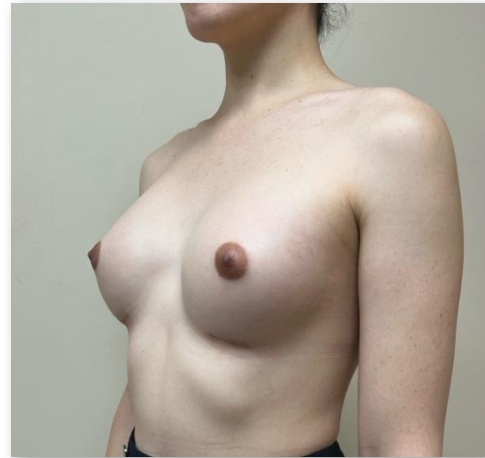
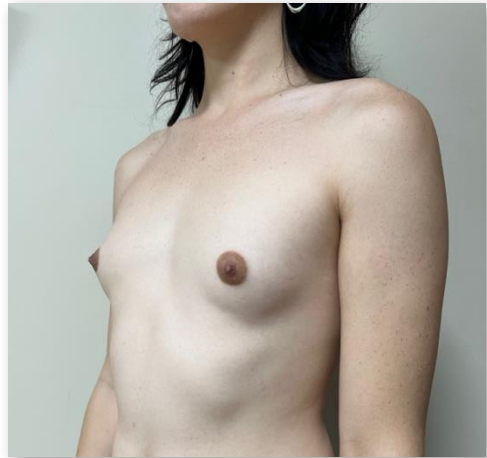
**Breast
augmentation
with silicone
implants
(submuscular)**



Before



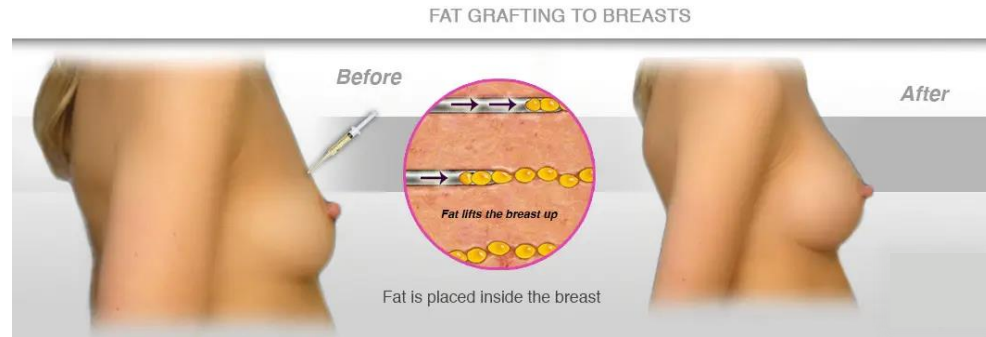
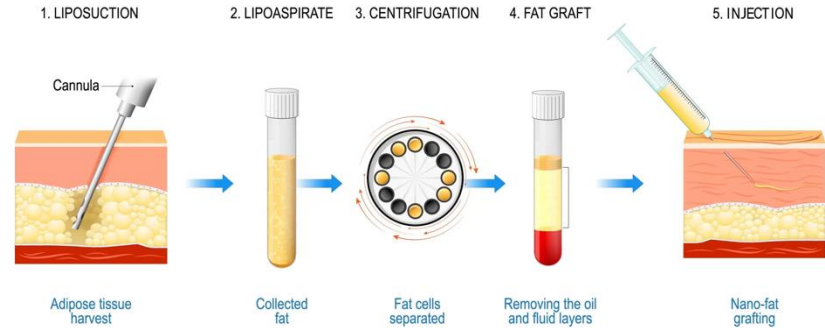
After



Breast auto-augmentation / lipofilling / fat transfer / fat grafting

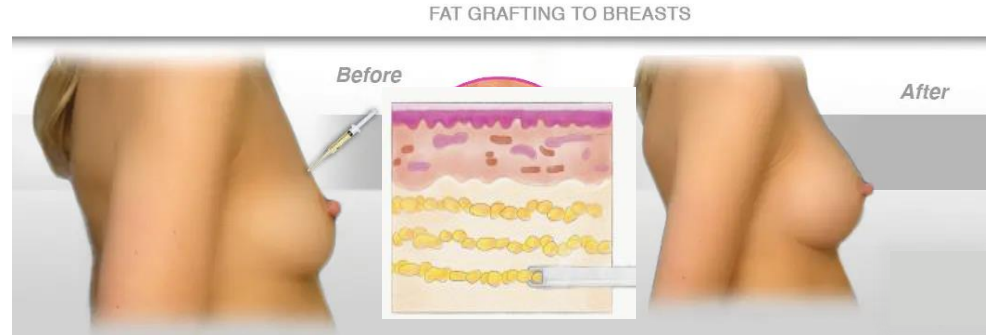
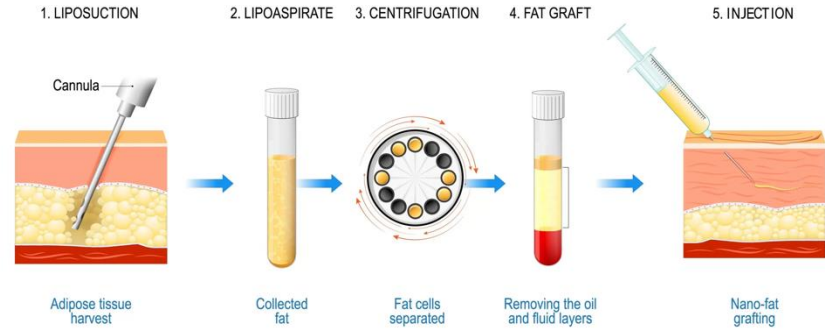
Fat grafting for breast augmentation

- Suction assisted lipectomy (SAL) fat harvest
- Processing harvested fat
- Injection of processed fat into breast gland

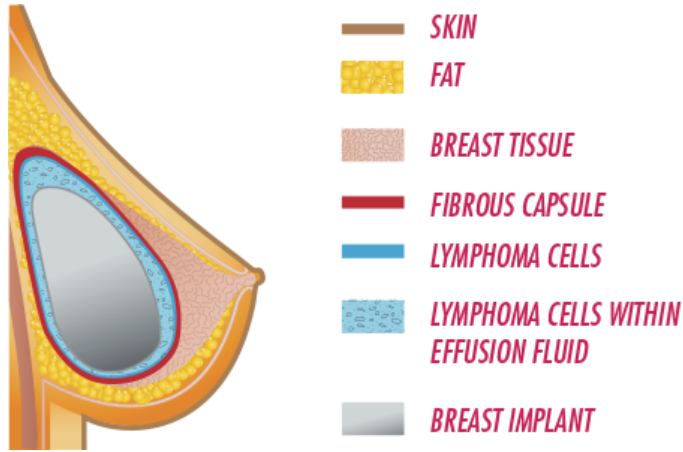


Breast auto-augmentation / lipofilling / fat transfer / fat grafting

- Maximize fat graft contact with well-vascularized tissues for optimal survival
 - Small aliquots of fat in many different planes
- Fat graft survival rates vary (30-80%)
- Devitalized fat graft →
 - Oil cysts
 - Microcalcifications



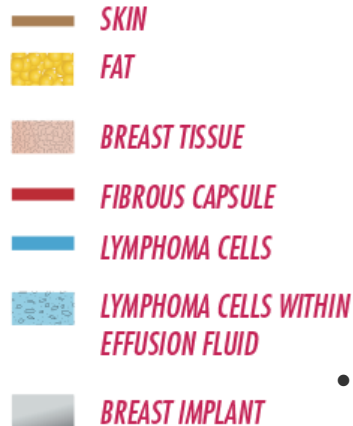
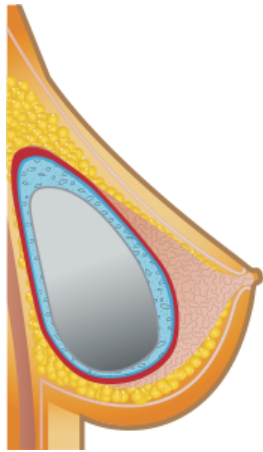
BIA – ALCL (Breast implant-associated – anaplastic large cell lymphoma)



- Textured implants, silicone & saline
 - Lifetime risk 1:2,207-1:86,029
- Classically a delayed unilateral seroma
 - May have pain/lump/rash
 - >1 year postop
 - Average 8 to 10 years postop
- Diagnosis:
 - Ultrasound or MRI
 - If confirmed seroma/mass →

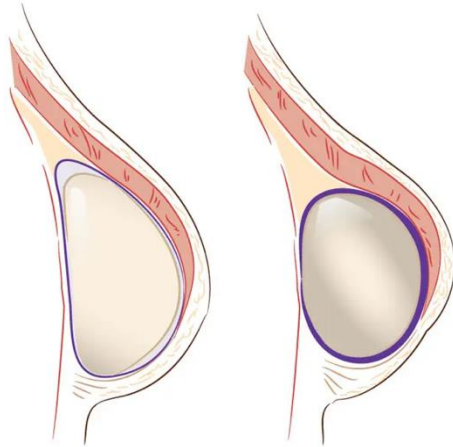
BIA – ALCL (Breast implant-associated – anaplastic large cell lymphoma)

- If confirmed seroma or mass
 - Aspiration/biopsy
 - CD30 immunohistochemistry
- Workup/treatment:
 - PET/CT
 - OR: total capsulectomy with implant removal
 - +/- LN biopsy
 - If metastatic:
 - Chemo +/- radiation
 - Possible BM transplant
- Report confirmed case to PROFILE registry (FDA + ASPS/PSF)



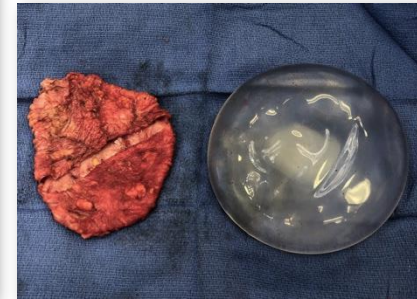
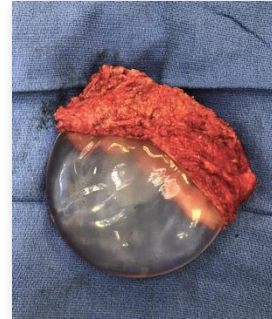
Capsular contracture (not breast cancer)

- Hypertrophic/firm scar at implant envelope
- Constricts/deforms implant
 - Visible & palpable deformity – high, tight, firm
 - Pain



Normal

Cap con

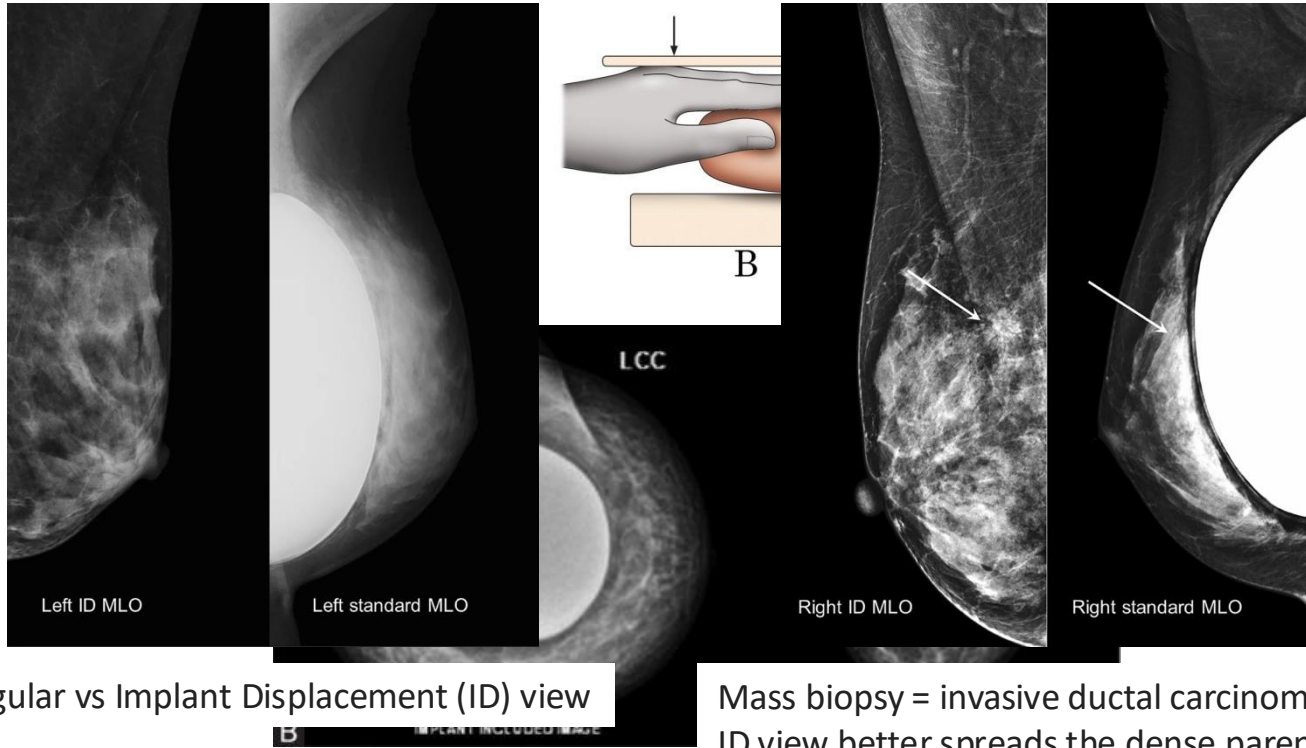


Breast Cancer Surveillance after breast augmentation

- **Same screening as recommended for cis women**
 - Onset/frequency of screening depends on risk factors
- Screening techniques / imaging
 - Mammogram
 - Implant displacement (ID) views
 - Ultrasound
 - MRI
 - Implant surveillance
 - Checks integrity of implants (rules out silent rupture)
 - Recommended 5 to 6 years postop, then every 2 to 3 years

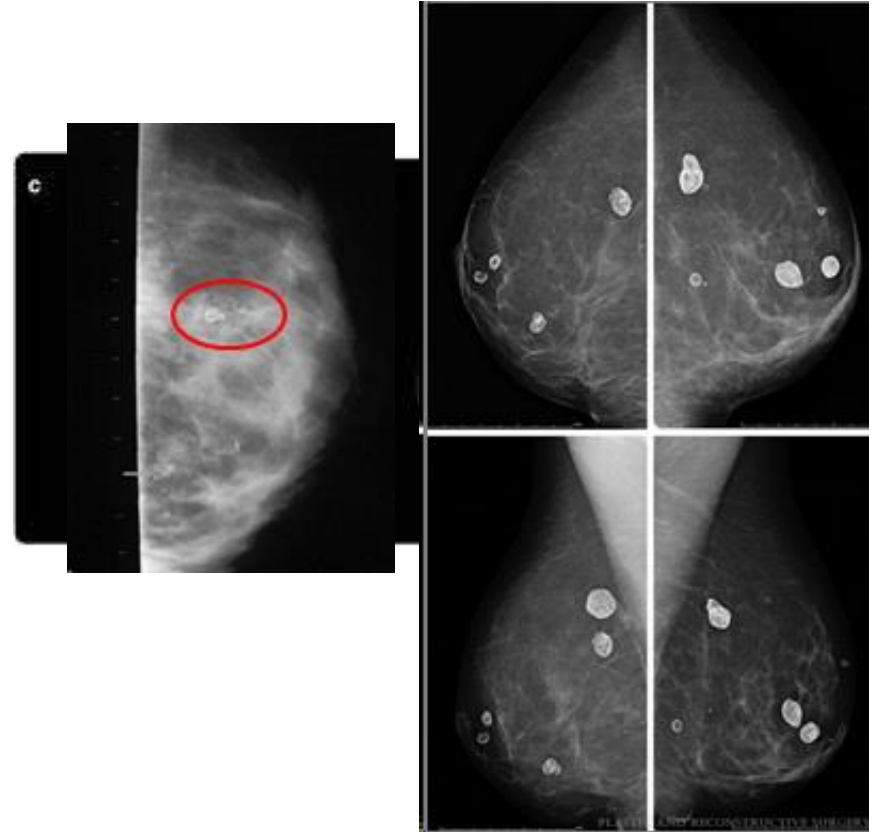


Mammogram Implant Displacement (ID) views



Breast Cancer Surveillance after breast lipoaugmentation

- Mammogram after fat grafting for breast augmentation
- No known increased cancer risk
 - Scattered oil cysts & microcalcifications
 - Can look suspicious
 - → more biopsies
 - Can obscure suspicious findings
 - ?delayed or missed early diagnosis



“mastectomy”

“top surgery”

Chest Masculinization

BREAST REMOVAL

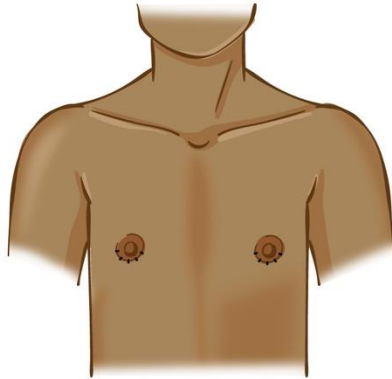
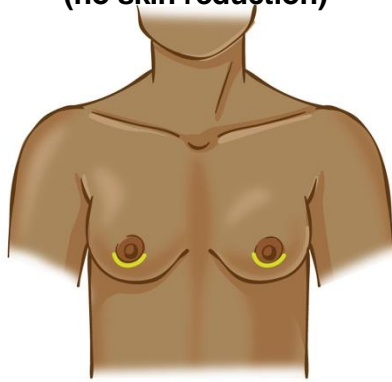
“chest masc”

“keyhole mastectomy”

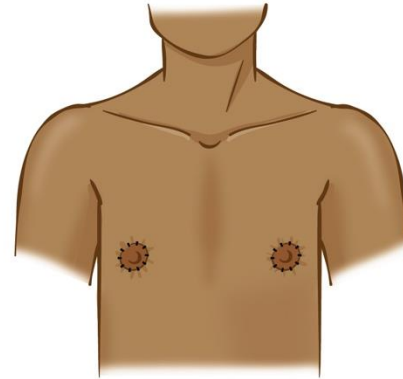
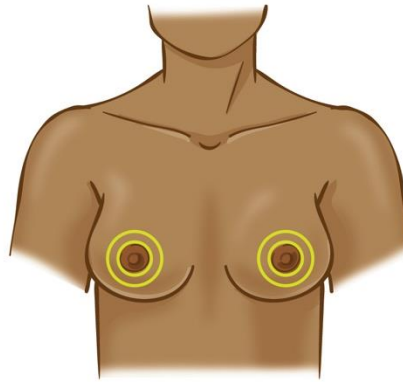
“double-incision mastectomy”

Chest masculinization incisions vary

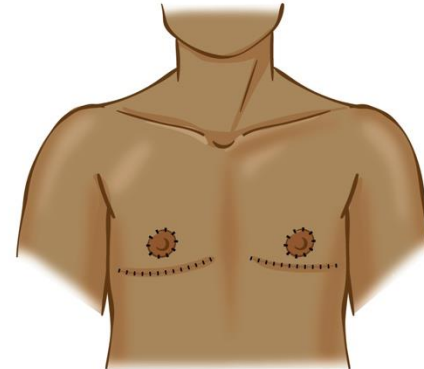
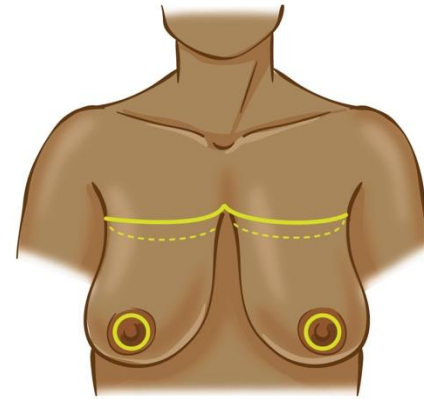
Periareolar
(no skin reduction)



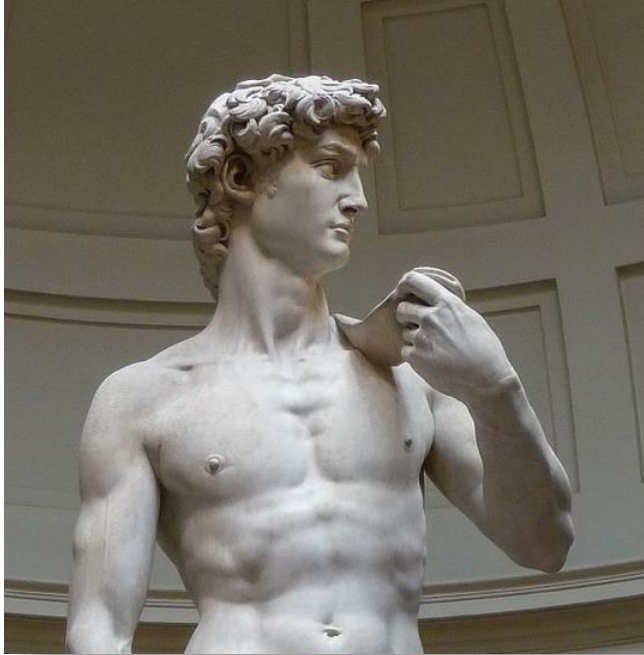
Circumareolar/"Donut"



Double-incision



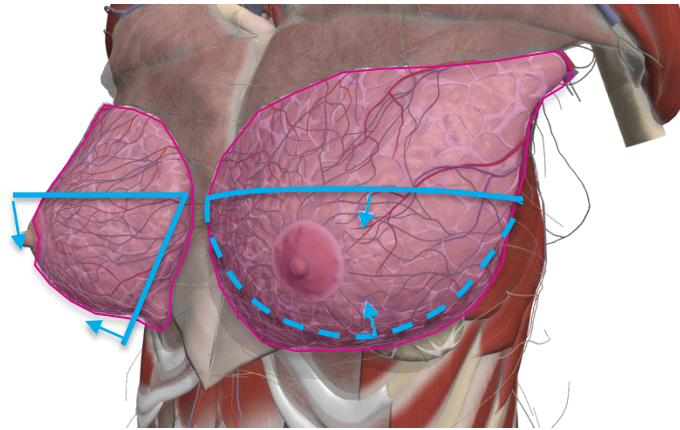
Chest masculinization



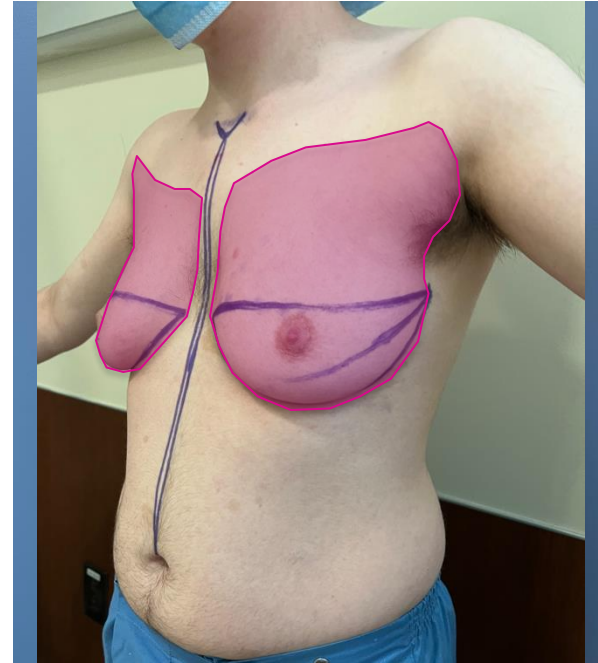
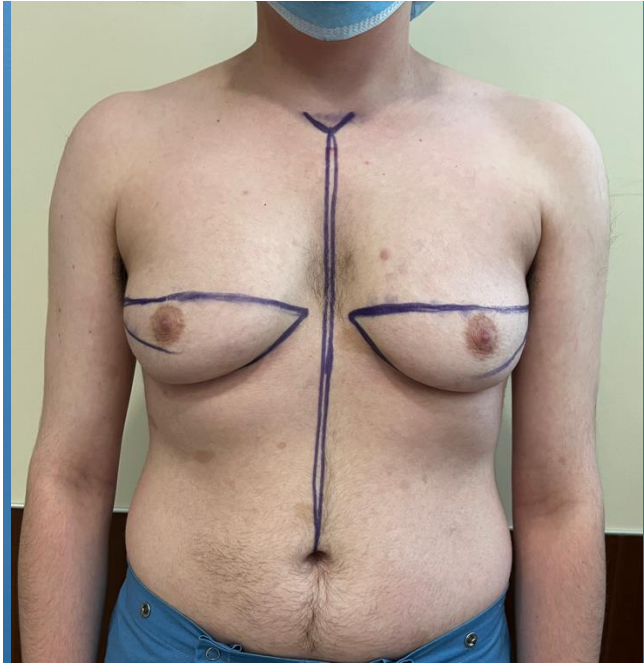
- **Techniques vary:**
 - Risk reduction mastectomy
 - Breast reduction / partial mastectomy
- Technique is surgeon dependent!
- Postop appearance is similar!
- Patient may not know technique details
 - May assume they've had "mastectomy"
- Doctors may also assume "mastectomy"

Risk reduction mastectomy

- Full resection of breast gland



Risk reduction mastectomy

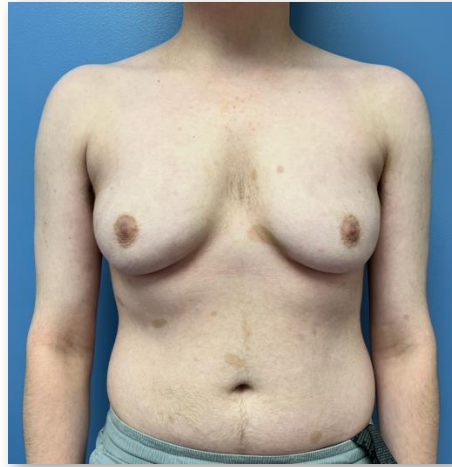


Risk reduction mastectomy

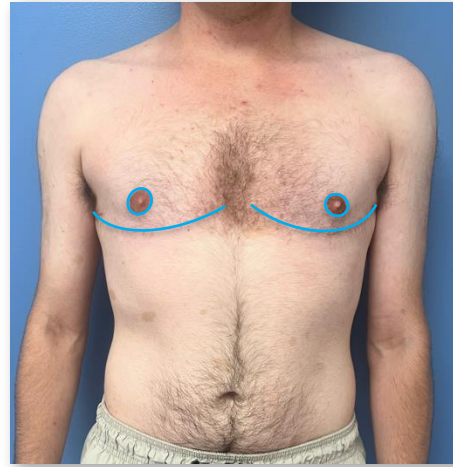


Full breast gland resected, including axillary tail

**Risk
reduction
mastectomy**



Before

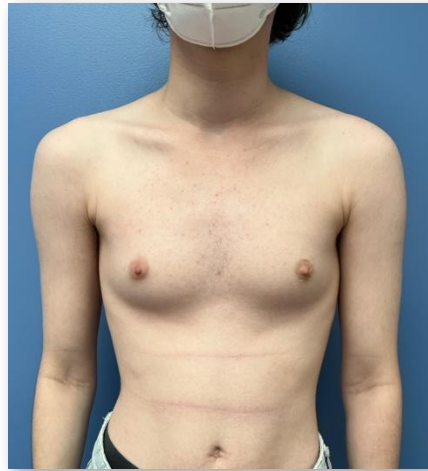


After

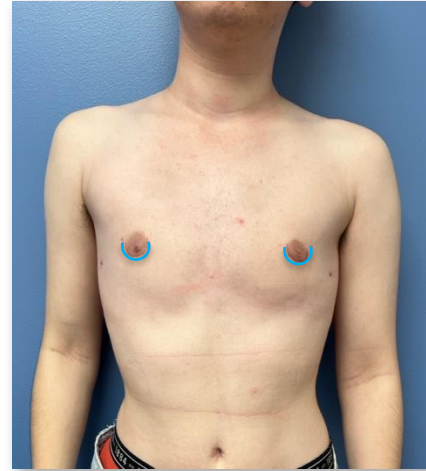


**Double
incision
(free nipple grafts)**

**Risk
reduction
mastectomy**



Before



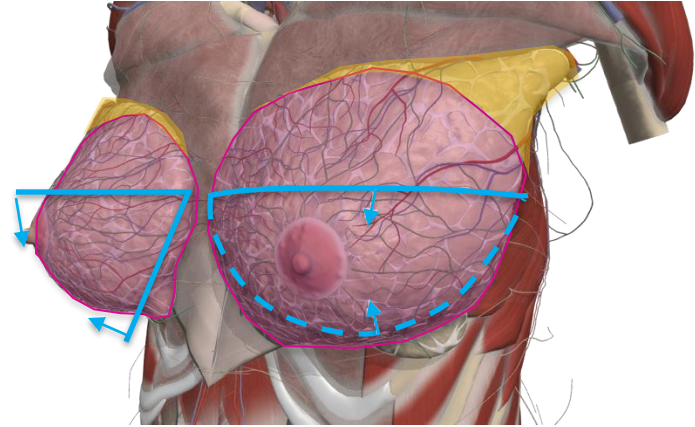
After



**Periareolar
(limited)
incision**

Subtotal mastectomy

- Most of breast gland resected
- No resection of axillary tail
- +/- suction assisted lipectomy (SAL) at axillary tail



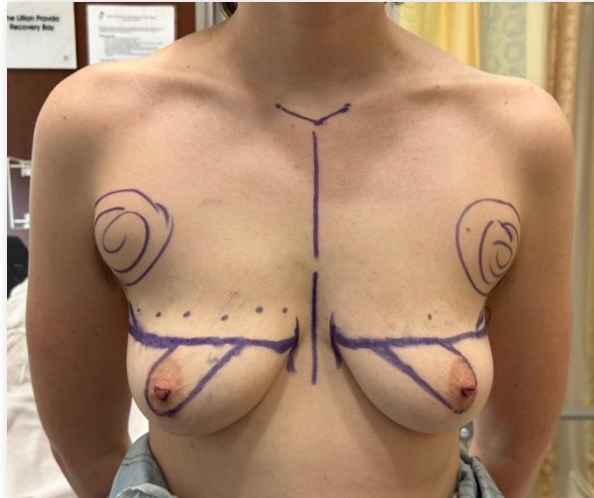
Subtotal mastectomy



Before

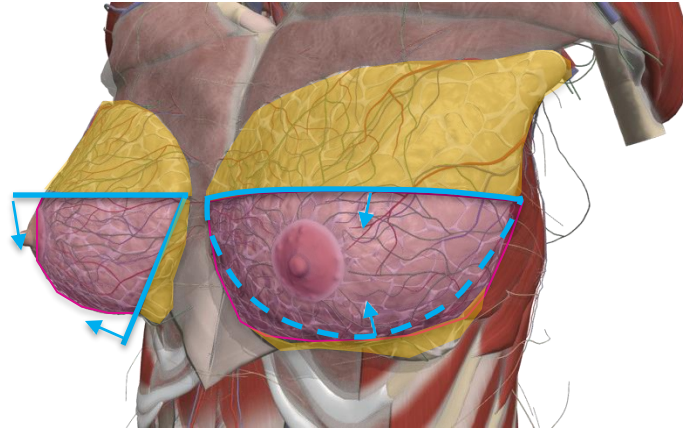


After



Breast reduction / wedge excision of breast gland

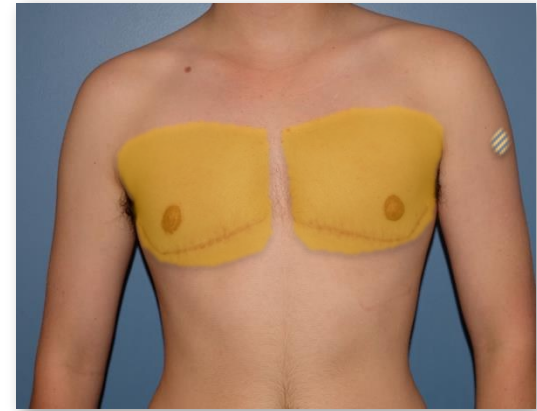
- Reduces but leaves breast tissue throughout
- Wedge excision



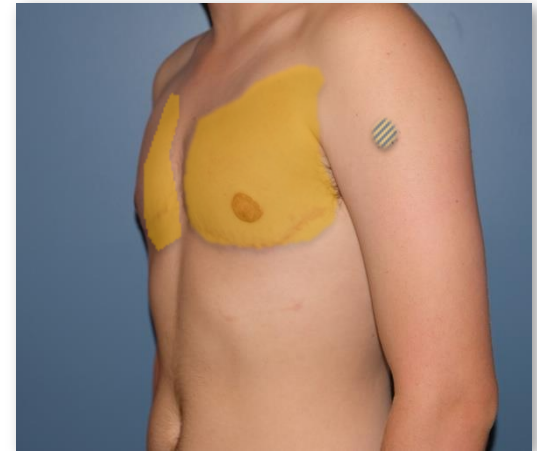
**Breast
reduction /
wedge
excision of
breast gland**



Before

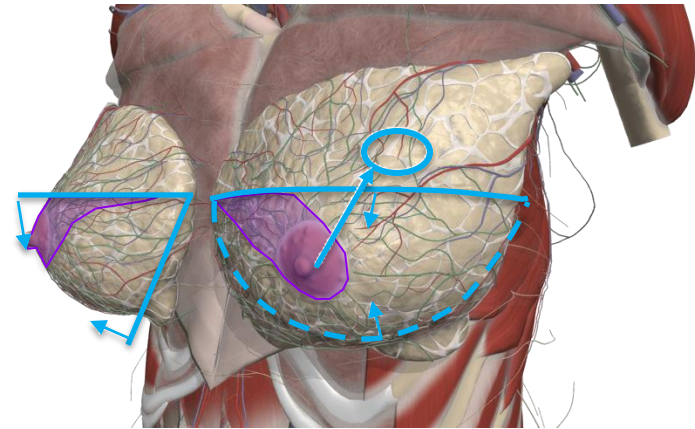


After



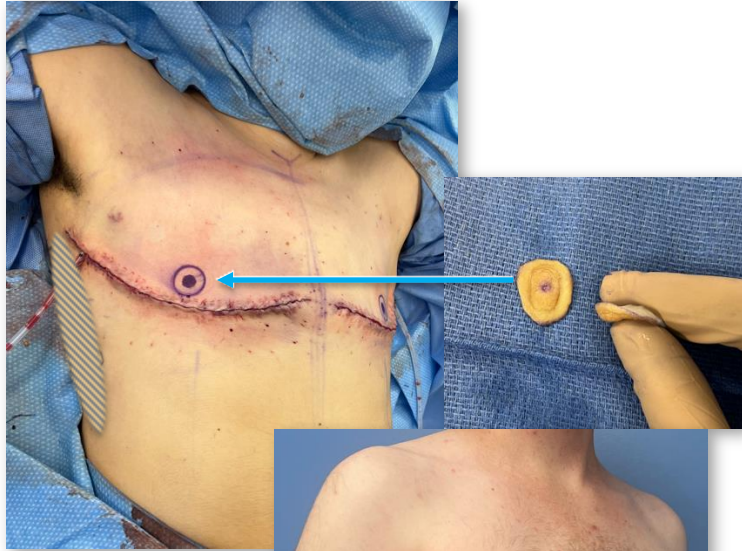
Pediced nipple flaps

- Nipple areolar complex left attached to the mastectomy skin flap
- Dermal vs dermoglandular pedicle
- Pair with any technique
 - Risk reduction mastectomy
 - Subtotal mastectomy
 - Breast reduction



Free nipple grafts vs

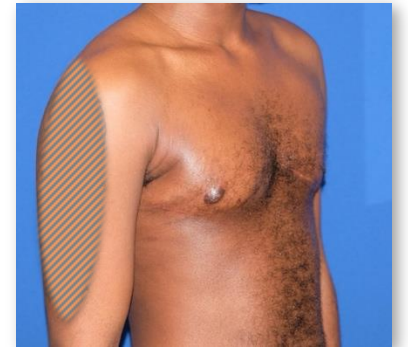
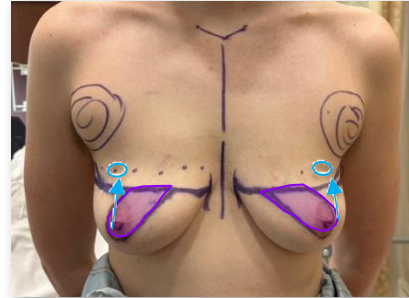
Skin only, no underlying breast tissue



Avanessian

Pedicated nipple flaps

Dermal pedicle vs dermoglandular pedicle



Horesh / Zoghbi

Comparison of techniques & results

Avanessian



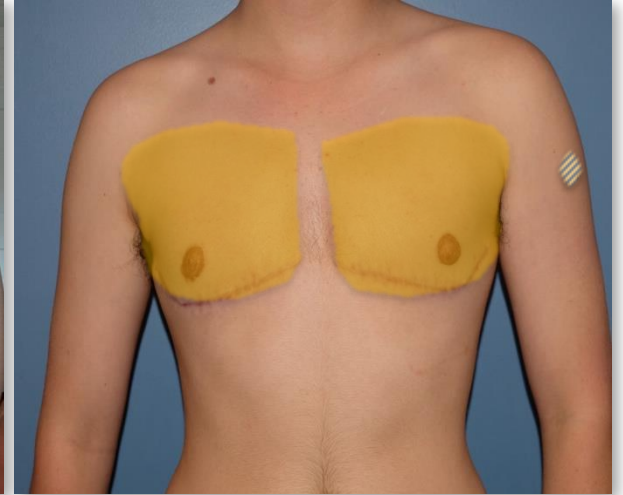
Risk reduction mastectomy

Horesh



Subtotal mastectomy

Zoghbi



Breast reduction / wedge

All look similar, but breast cancer risk is different

Breast cancer surveillance

- Incidence of breast cancer following “mastectomy” for chest masculinization
 - Unknown
 - Typically young/healthy patients
 - Typically NOT a risk-reduction mastectomy
 - No screening guidelines currently exist
- American Cancer Society
 - After risk reduction mastectomy, cis women need an annual breast exam
- Follow recommendations for cis women



Breast cancer surveillance after chest masculinization

- Same screening as recommended for **cis women**
 - Onset/frequency of screening depends on risk factors
- Screening techniques / imaging
 - Breast self-exam
 - **If true risk-reduction mastectomy**
 - Imaging only if lump or pain
 - (Mammogram)
 - Typically impossible postoperatively
 - Ultrasound
 - MRI
 - **Any modalities used for very small-breasted cis women**



Thank you

Questions?

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Thank you