Breast Reconstruction:
What Every Patient Needs to Know
Goals of Care

• Restore shape and function after cancer

• Aid in physiological and psychological benefit
  – Relationship with significant other
  – Self esteem and positive body image
  – Feeling of a “whole body”
  – Avoid having to wear prosthesis
Timing for Breast Reconstruction

**Immediate**

**Pros**
- Better cosmetic results
- Less scarring
- Less surgery

**Cons**
- May delay cancer treatment
- Cosmetic result compromised by radiation

**Delayed**

**Pros**
- Cancer treatment first

**Cons**
- Mastectomy scars
- Additional surgery
- Wait time for reconstruction
Reconstruction 10-12 months

- Implant
- Your Own Tissue
- Combined
Implant-Based Reconstruction

Advantage
• Quick procedural time
• Shorter recovery time
• Variable size
• One operative site (breast)

Disadvantage
• Limited implant lifespan
• Multiple procedures
• Revisions necessary
• Visible/palpable implant
• Risk for potential infection
• Risk of capsule contracture
Two Step Process

Step 1
Placement of Tissue Expander
- 1 hour/side
- 1 overnight stay

Step 2
Exchange of Tissue Expander for Implant
- 1 hour/side
- Outpatient procedure
Tissue Expander Reconstruction

- Clinic visit 1-2 weeks for gradual fills with fluid
- In 3mo (or 6mo with radiation) replaced with implant
Implant-Based Breast Reconstruction

Mastectomy + Tissue Expander Insertion

Expansion

Implant Exchange

Nipple Reconstruction

OR ~1 mo Clinic 3-6 mos OR 3 mos Clinic
Potential complications with Implants

- Rupture/Deflation
- Displacement
- Infection
- Capsular contracture
- Difficulty with mammograms
- Need for revisional surgery
- Visible rippling
- Unnatural feeling
- Asymmetry
- Pain
Radiation and Reconstructive Surgery

• Different timing and approach
• Immediate reconstruction may not be possible
• Radiation affects blood supply to normal skin
• Higher risk of complications
  – Delayed wound healing
  – Fat necrosis
  – Capsular contracture
Autologous Reconstruction: Using your own tissue

Reconstructive Options

Tissue expansion breast implant

T-Dap
Latissimus dorsi muscle

DIEP
SIEA
Free TRAM
Pedicled TRAM

LSGAP
SGAP

TUG
Abdominal Flap/Tummy Tuck Flap

- pedicle TRAM
- free TRAM
- MS-TRAM
- DIEP
- SIEA

Sacrifices muscle

Sparres muscle
Autologous Tissue - Abdomen

**Advantage**
- Natural own tissue
- No implant complications
- Natural look/feel
- Opportunity for aesthetic improvement (tummy tuck)

**Disadvantage**
- Longer procedure
  - 6 hours/side
- Longer hospital stay
  - 4-5 days
- Longer recovery
  - 6-8 weeks
- Risk of abdominal hernia
- Risk of damaged blood flow

**Contraindications**:
- Not enough fat tissue
- Prior liposuction
- Prior surgeries/scars
Complications of autologous transplants

• Blood clots 3%
• Flap failure 1%
• Partial flap loss 1%
• Abdominal wall weakness 3%
• Hernia 1%
• Bulge 1%
• May require synthetic mesh to reinforce muscle 5%
• Fluid collection (seroma) 2%
• Blood Collection (hematoma) 1%
• Infection 1%
Alternative sites for reconstruction with your own tissue

**Buttock**
- Skin and fat tissue
- No muscle taken
- Buttock lift

**Thigh**
Latissimus Flap with Implant

Pre-Operative Surgical Markings

Flap Transfer in the Operating room

Final Appearance with Nipple Reconstruction
Latissimus Flap Reconstruction

• Skin, fat, muscle, and blood vessels transferring from the back to the chest
• Implant inserted
  – to replace missing volume
  – achieve desired shape, size, and projection
• Back up option for patients with wound healing problems and prior radiation treatment
Latissimus Flap Reconstruction

**Advantage**

- Blood vessels remain attached
- Natural appearance
- Good option for patients after radiation therapy
- Incision on the back placed under bra stripe
- Quicker procedural time (3-4 hours)
- Short recovery time (3-4wk)
- Variable size

**Disadvantage**

- 2-4 day hospital stay
- Limited implant lifespan
- Two operative sites (back and breast)
- Possible partial loss of muscle function
- Possible revisions
- Visible/palpable implant
- Risk for potential infection
- Risk of flap failure
Autologous Breast Reconstruction

Mastectomy  Flap  Revision(s)  Nipple Reconstruction

Immediate  OR  3 mos  OR  3 mos  OR  Clinic

OR  OR

Delayed
Nipple Reconstruction

- Patient’s preference
- Nipple is reconstructed after the breast is healed (3-4 months after reconstruction surgery)
  - Use local tissue (projected nipple) + tattoo
  - Three dimensional tattoo (flat nipple)
Risks and Complications of ANY Surgery

- Bleeding
- Infection
- Scars
- Pain
- Loss of sensation
- Asymmetry

- Blood Clots
- Respiratory problems
- Problems with ambulation
- Delayed wound healing
- Need for more surgery
Summary

• Tissue Expander/Implant
  – Less surgery, faster recovery
  – Implants are mechanical devices
  – Less “natural”

• Own tissue transplant
  – Bigger surgery, longer recovery
  – Highly technical
  – Greatest longevity

• Combination
  – Selected patients
  – Recovery and extent of surgery a blend of the two