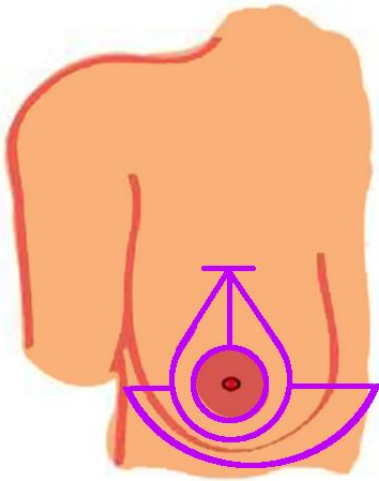# AR for Symmetric Outcome in Plastic Surgery

Incision lines

Skinned

Removed

- Breast reconstruction is high volume

- Many procedures are **bilateral** e.g. reductions

- Outcome is unclear:
  - Healing pattern
  - Amount …
  - … and distribution of removed tissue
  - etc.

- During the procedure, patient is raised to **sitting pose** at least once for **verification**

- **AR solution** to assess **symmetry** of intra-operative result

# AR for Symmetric Outcome in Plastic Surgery

- **What Students Will Do:**
  - Use RGBD camera on HMD to get 3D model of sitting patient
  - Asses asymmetry in the 3D patient model
  - Develop AR solution to provide this information to the surgeon

- **Deliverables:**
  - Unity + C# source code (proof-of-principle implementation)
  - Code documentation
  - Report describing the methods and achievements

- **Size group:** 2

- **Skills:** Experience in Unity + C# desired

- **Mentors:**
  - Mathias unberath@jhu.edu, Prof. Navab
  - Clinical collaborator: Prof. Soltanian M.D.