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# Reconstructive Surgery with Free Flaps Following Mastectomy

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Plastic & Reconstructive Surgery  
Memorial Sloan Kettering Cancer Center

# Objectives

1

Define and  
categorize Flaps

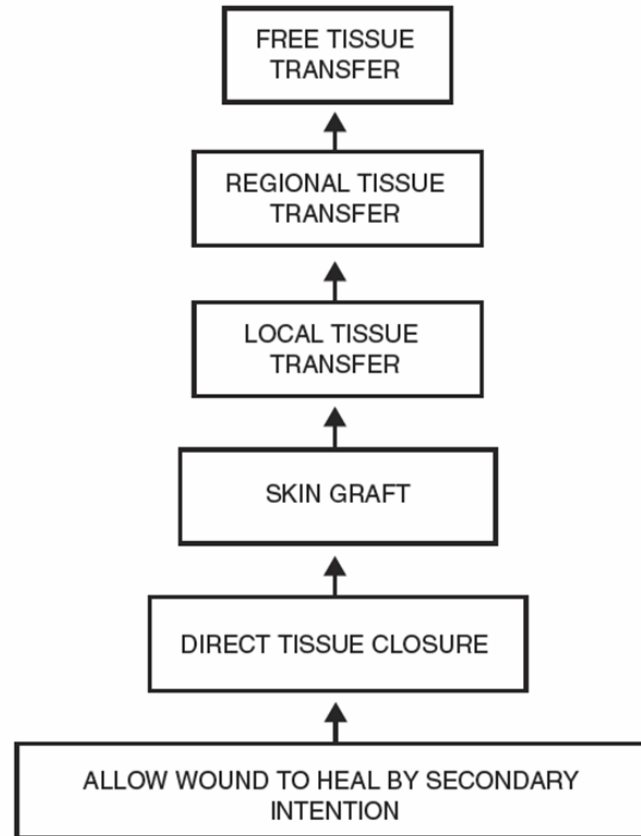
2

Understand the role  
of Flaps in  
autologous  
oncologic  
reconstruction

3

Discuss commonly  
used Free Flaps in  
Breast  
Reconstruction

# The Reconstructive Ladder



# FLAP

PEDICLE

LAYERS:

SKIN

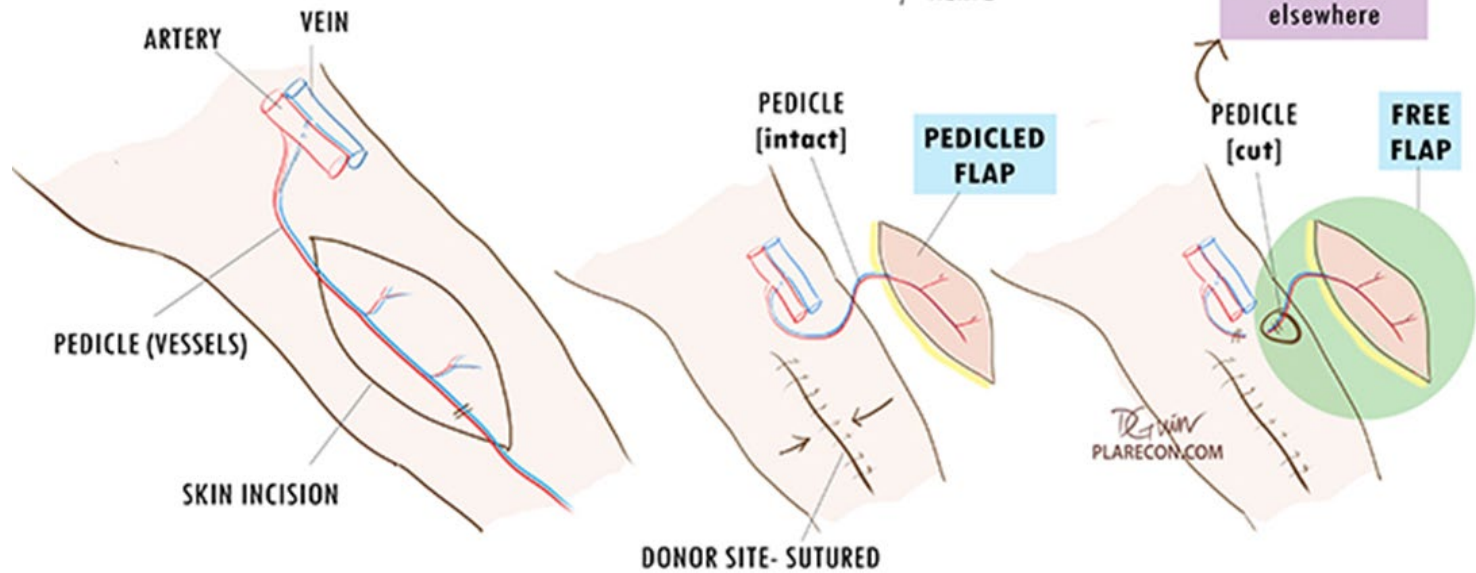
SUBCUTANEOUS TISSUE

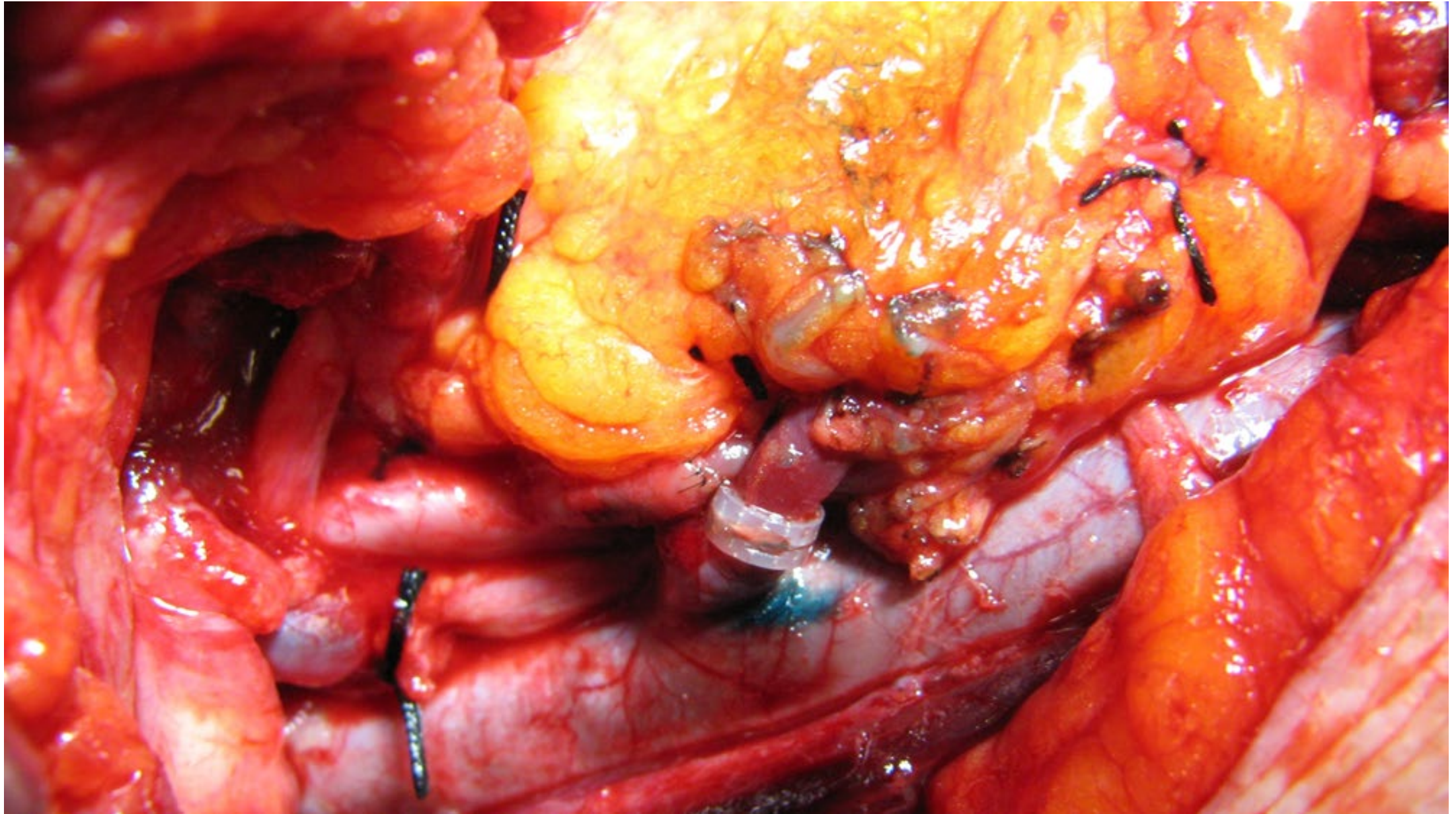
+/- MUSCLE, FASCIA

+/- BONE

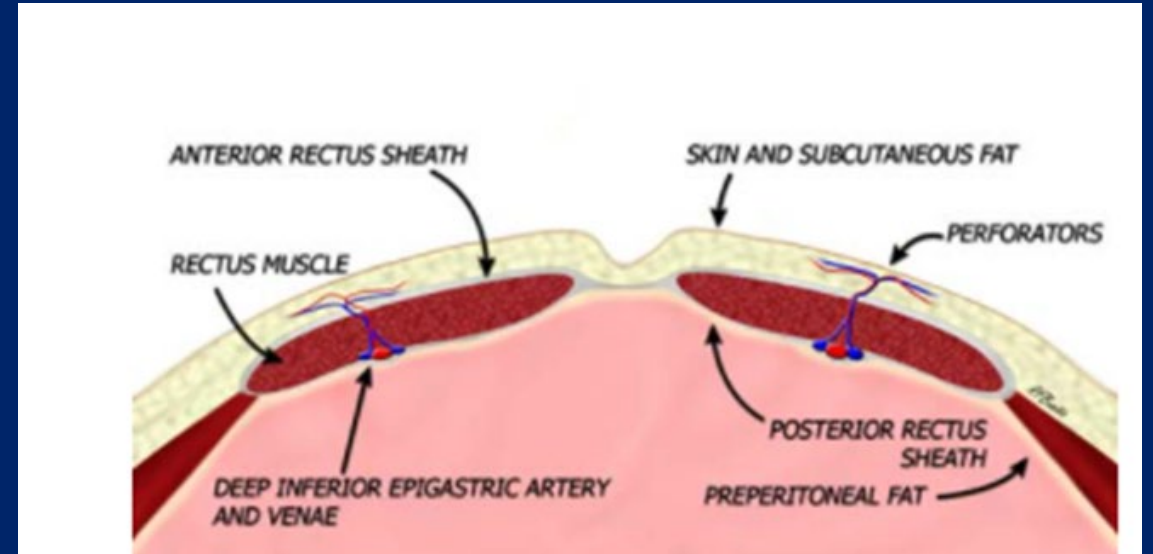
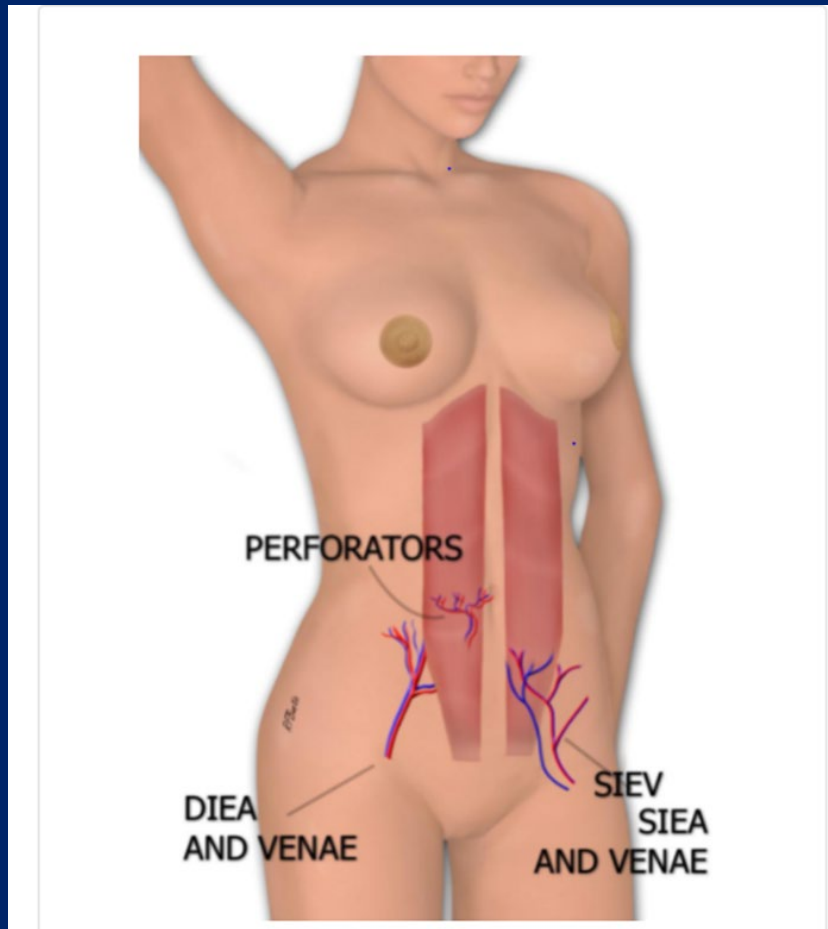
+/- NERVE

PlaRecon

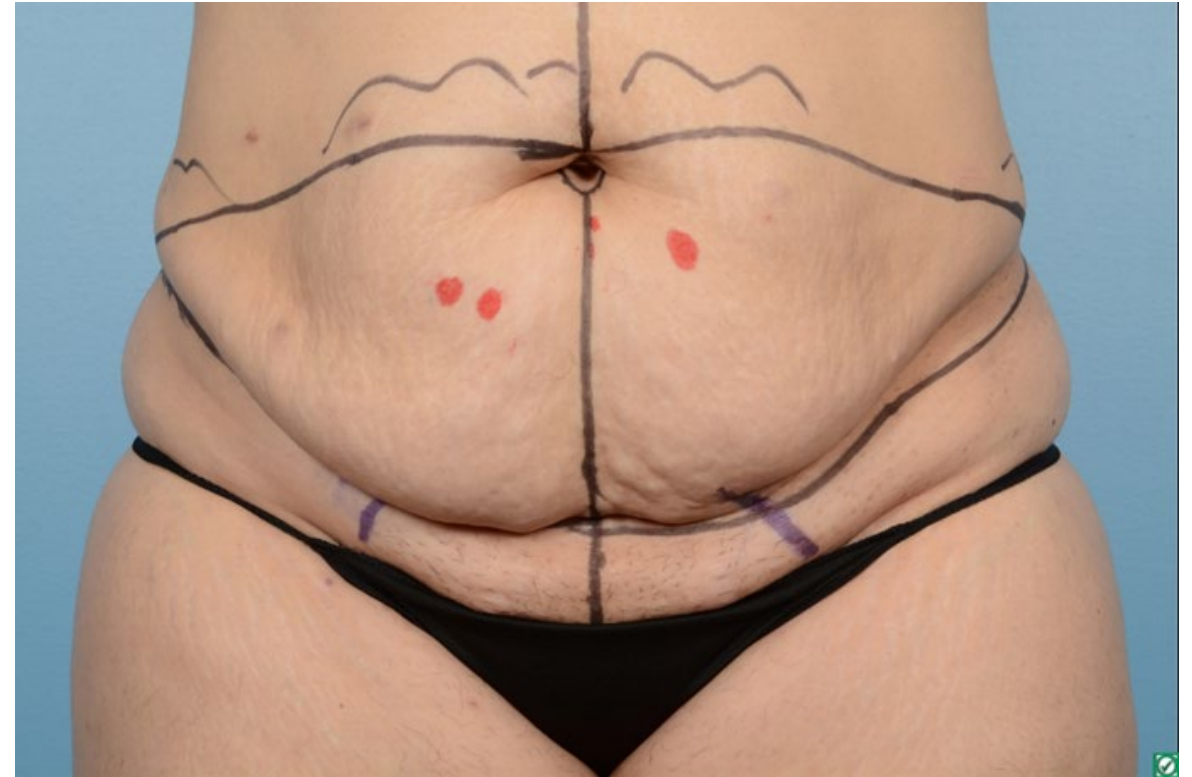
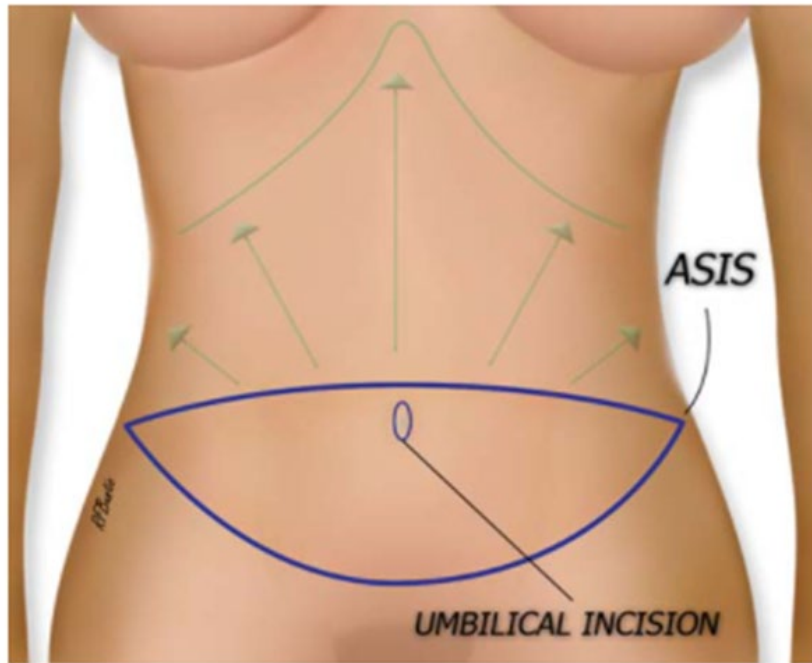




# Deep Inferior Epigastric Perforator (DIEP) Flap



# Pre-operative Markings



# DIEP Flap



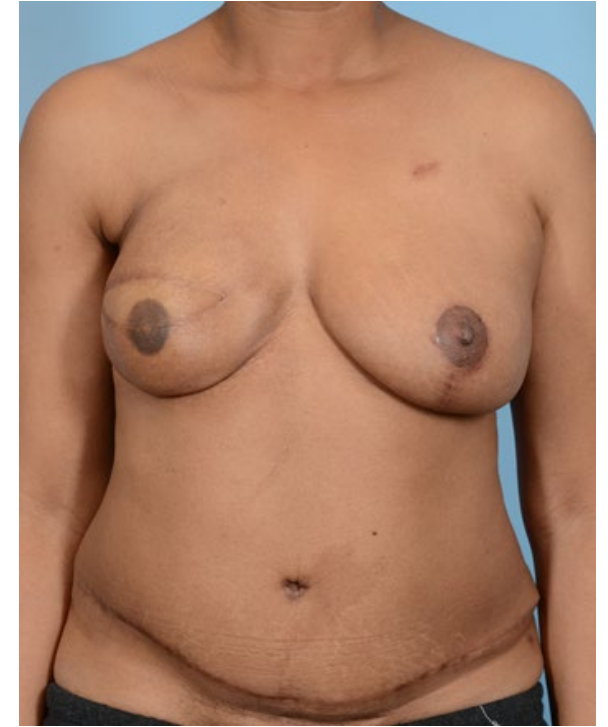
Diep Flap attached to abdominal donor site



Internal mammary recipient vessels



# Post Operative results



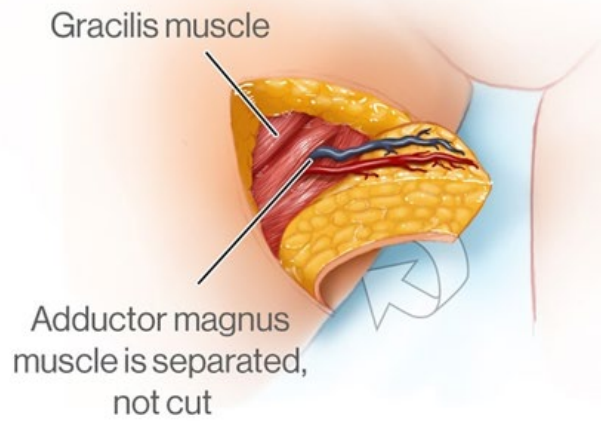
# Thigh-Based Flaps



# PAP Flap

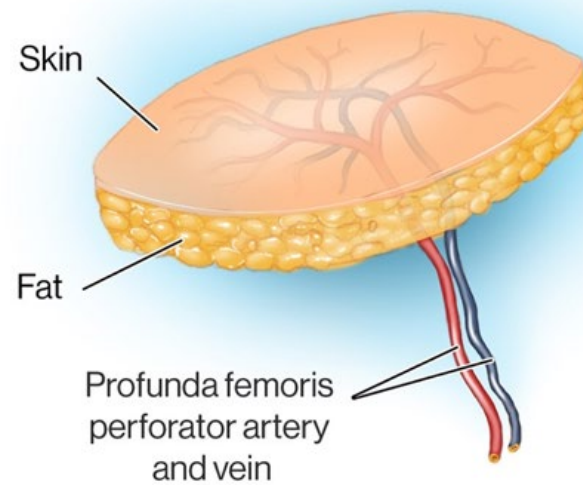
## Creating the PAP Flap

Skin, fat, and the perforator of the profunda femoris artery and veins

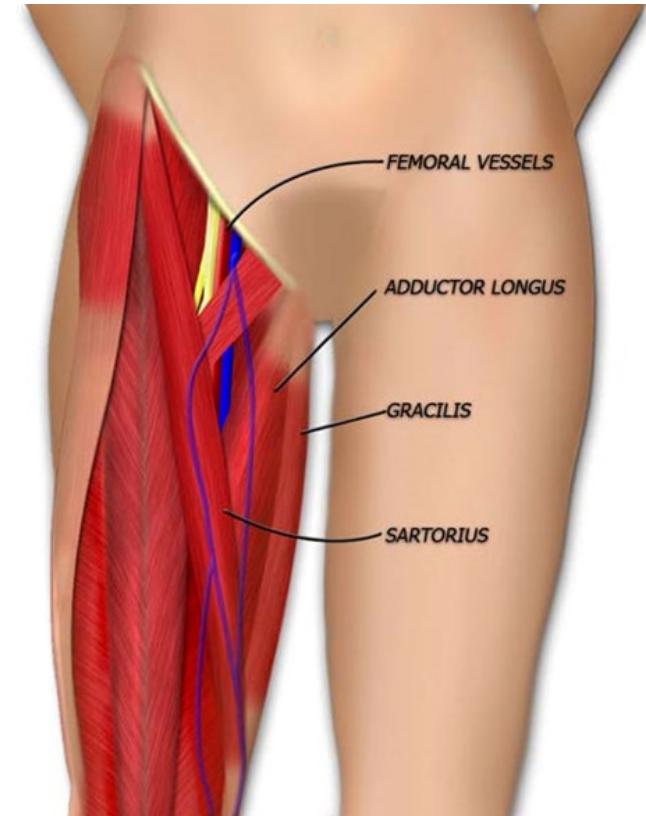
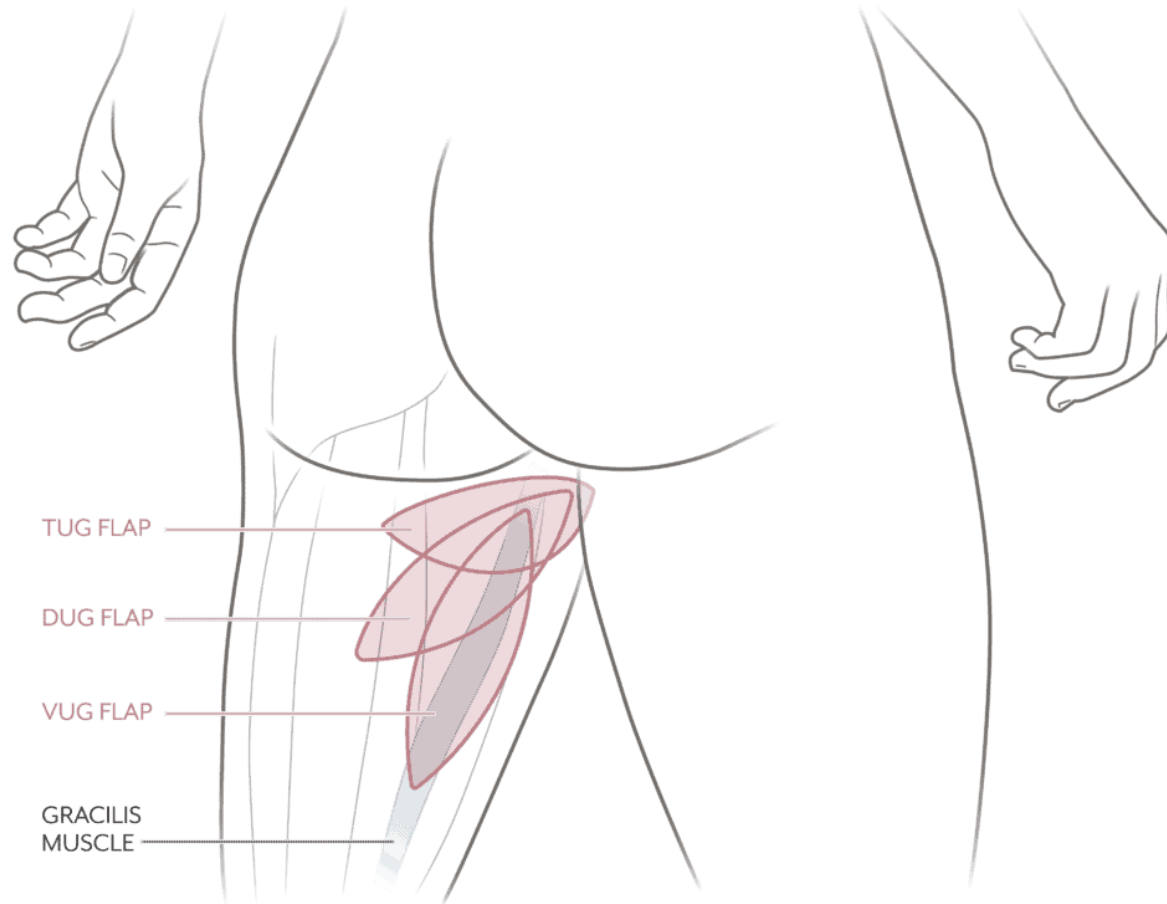


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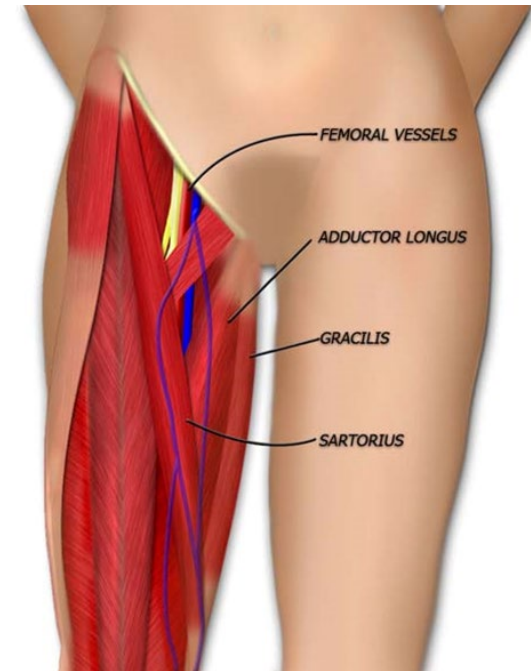
## Profunda Artery Perforator (PAP) Flap



# TUG/DUG/VUG Flaps



# DUG Flap



**Questions?**



# Citations

1. The Diagonal Upper Gracilis (DUG) Flap: A Safe and Improved Alternative to the TUG Flap Dayan, Erez MD; Smith, Mark L. MD; Sultan, Mark MD; Samson, William MD; Dayan, Joseph H. MD, Plastic and Reconstructive Surgery: October 2013 - Volume 132 - Issue 4S-1 - p 33–34
2. Lau, Catherine K.. <http://www.microsurgeon.org>. Annals of Plastic Surgery: June 2009 - Volume 62 - Issue 6 - p 600-601 doi: 10.1097/SAP.0b013e3181a6cbe9
3. Buntic R. Online atlas of microsurgery. The transverse upper gracilis (TUG) flap. <https://www.microsurgeon.org/tugreconstruction>. Accessed November 5, 2022.
4. Buntic R. Online atlas of microsurgery. The Deep Inferior Epigastric Perforator(DIEP) flap. <https://www.microsurgeon.org/tugreconstruction>. Accessed November 5, 2022.
5. Buntic R. Online atlas of microsurgery. The Profunda Artery Perforator(PAP) flap. <https://www.microsurgeon.org/tugreconstruction>. Accessed November 5, 2022.



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