

**SNS COLLEGE OF ALLIED HEALTH SCIENCE**  
Affiliated to The Tamil Nadu Dr MGR Medical University, Chennai

**DEPARTMENT OF CARDIOPULMONARY PERFUSION CARE**  
**TECHNOLOGY**

**COURSE NAME:** Introduction to Surgery

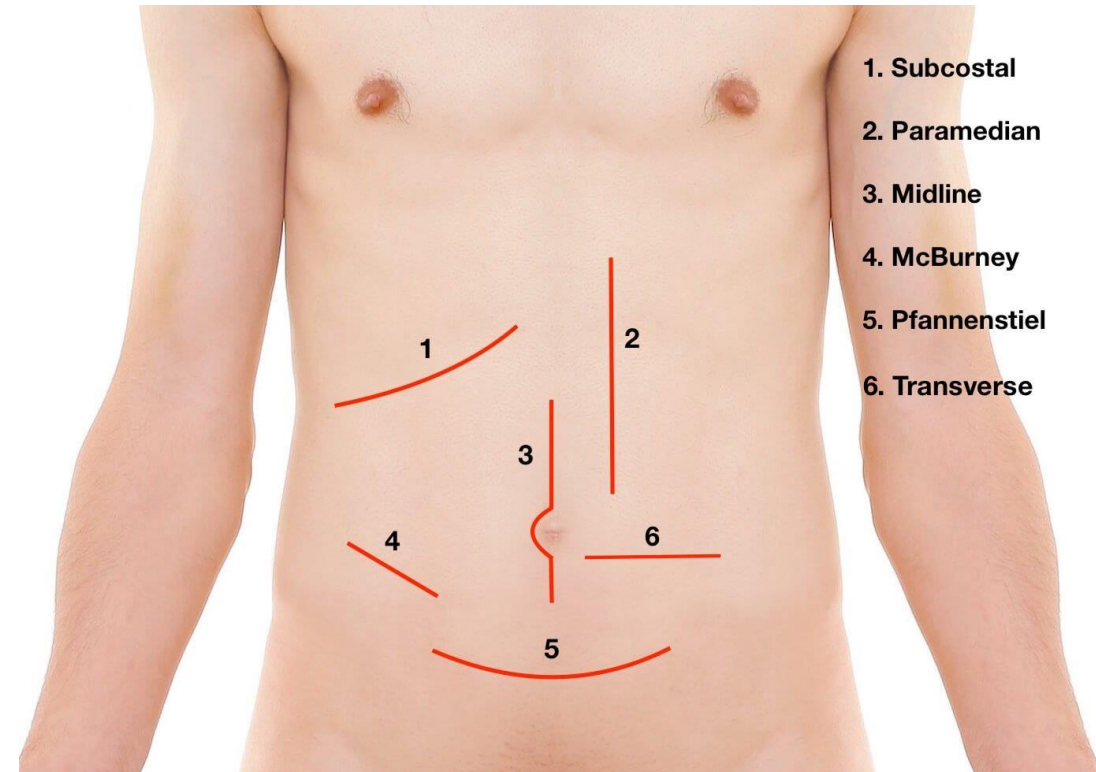
**UNIT I**

**TOPIC :** Incision and its Types

**FACULTY NAME:** Mrs. Saranyaa Prasath

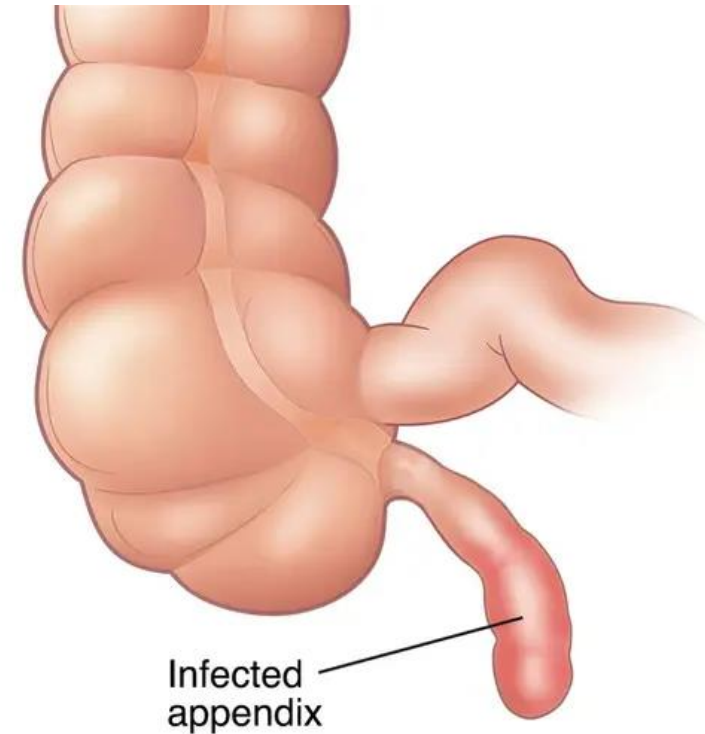
# Introduction to Incisions

A surgical incision is a cut through the skin to facilitate an operation. The choice of incision affects accessibility, extensibility, and security during surgery.



## Empathize — Case Study

- A 35-year-old woman requires an emergency appendectomy.
- Her primary concern is having minimal scarring and quick recovery.
- Her surgeon must weigh cosmetic outcome with surgical access and safety



# Empathize — Stakeholder Concerns

**Patient:** Desires a safe operation and good cosmetic result.

**Surgeon:** Needs best exposure while preserving function and appearance.

**Family:** Wants reassurance about risks and recovery

# Define — Surgical Principles

**What should be considered for an ideal incision?**

## **Adequate Exposure**

**Ensures clear visibility and access during surgery.**



## **Minimize Trauma**

**Reduces patient discomfort and recovery time.**

## **Align with Langer's Lines**

**Promotes better healing and reduces scarring.**

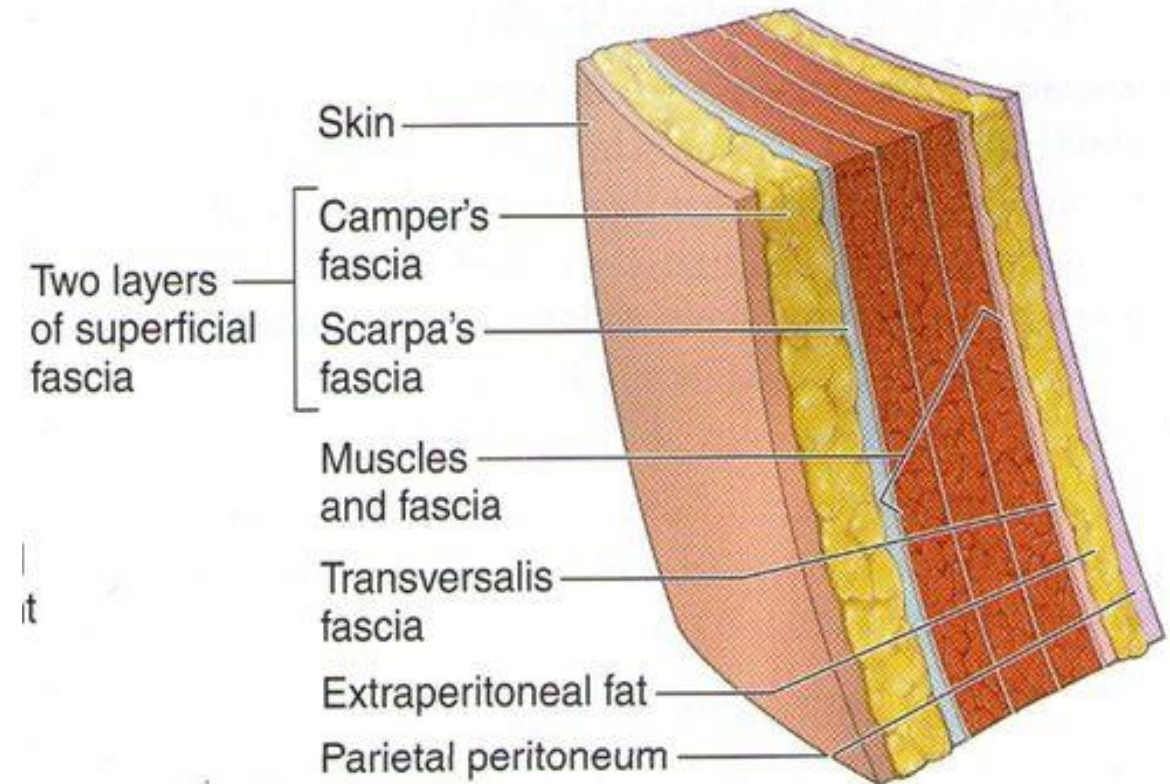
## **Preserve Nerve and Blood Supply**

**Maintains tissue viability and function.**

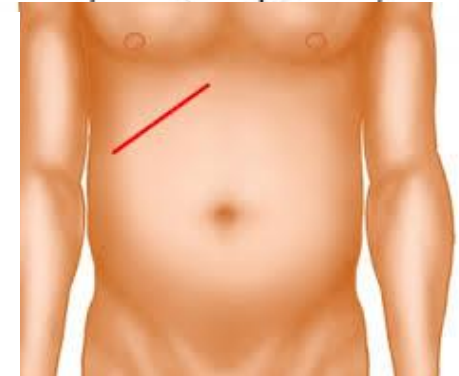
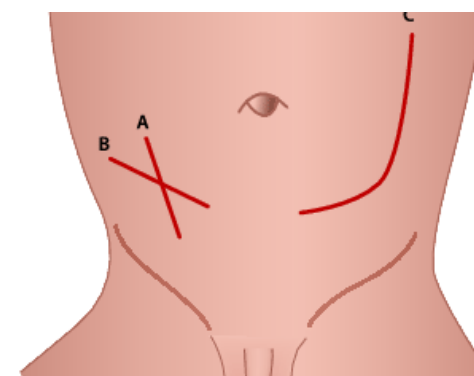
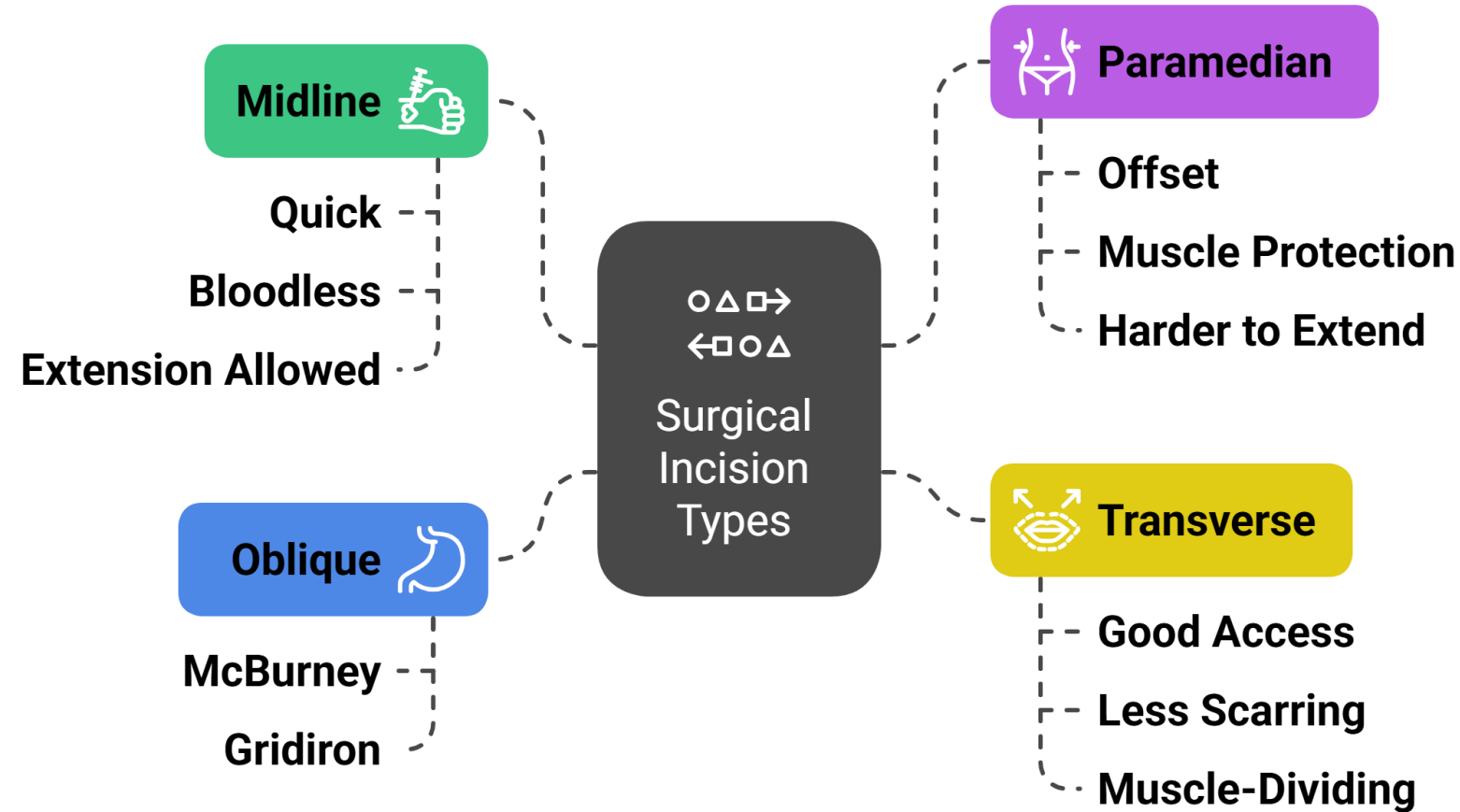
# Define — Anatomical Considerations

Incisions traverse layers:

- Skin
- Subcutaneous tissue (Campers and Scarpa's fascia)
- Muscles (e.g., external oblique, internal oblique, transversus abdominis)
- Fascia, peritoneum

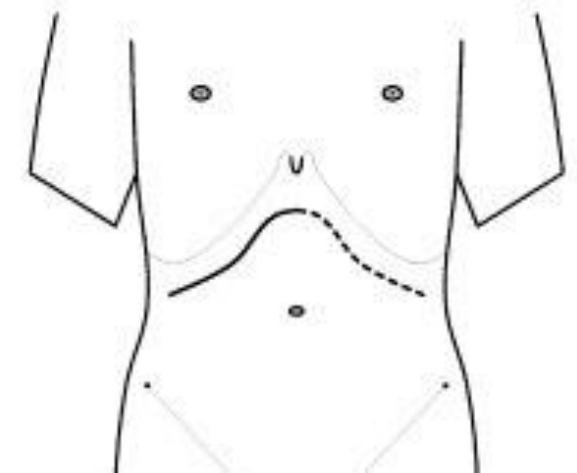
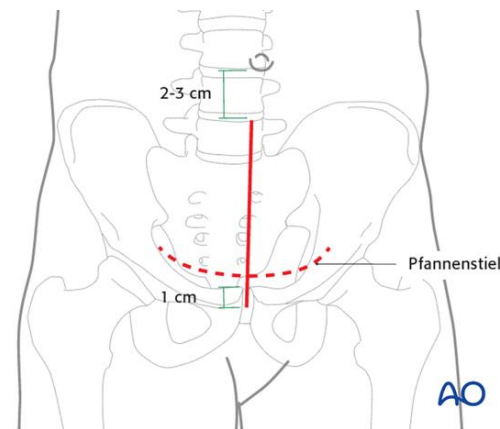
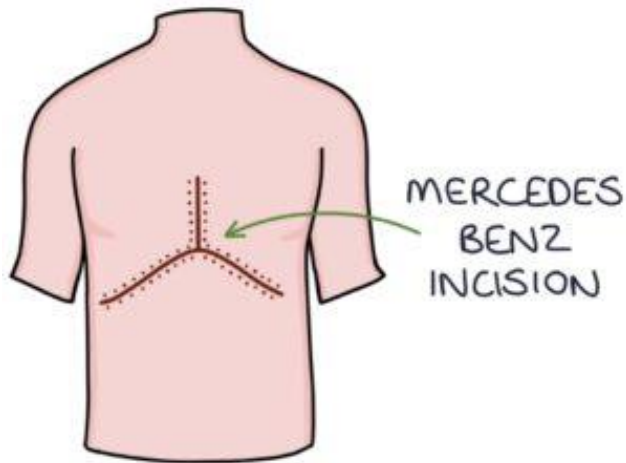


# Ideate — Common Types of Incisions

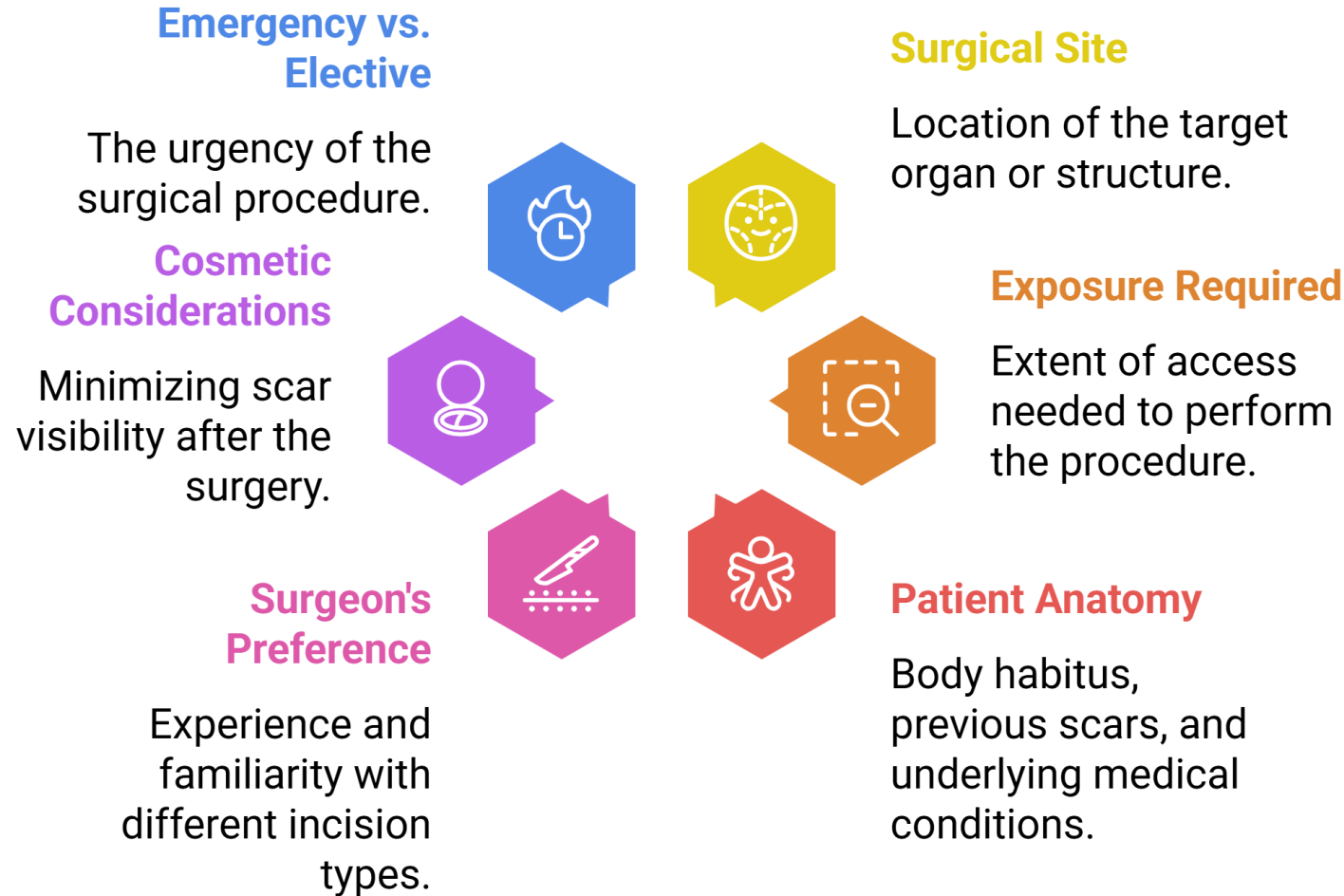


# Ideate — Special and Named Incisions

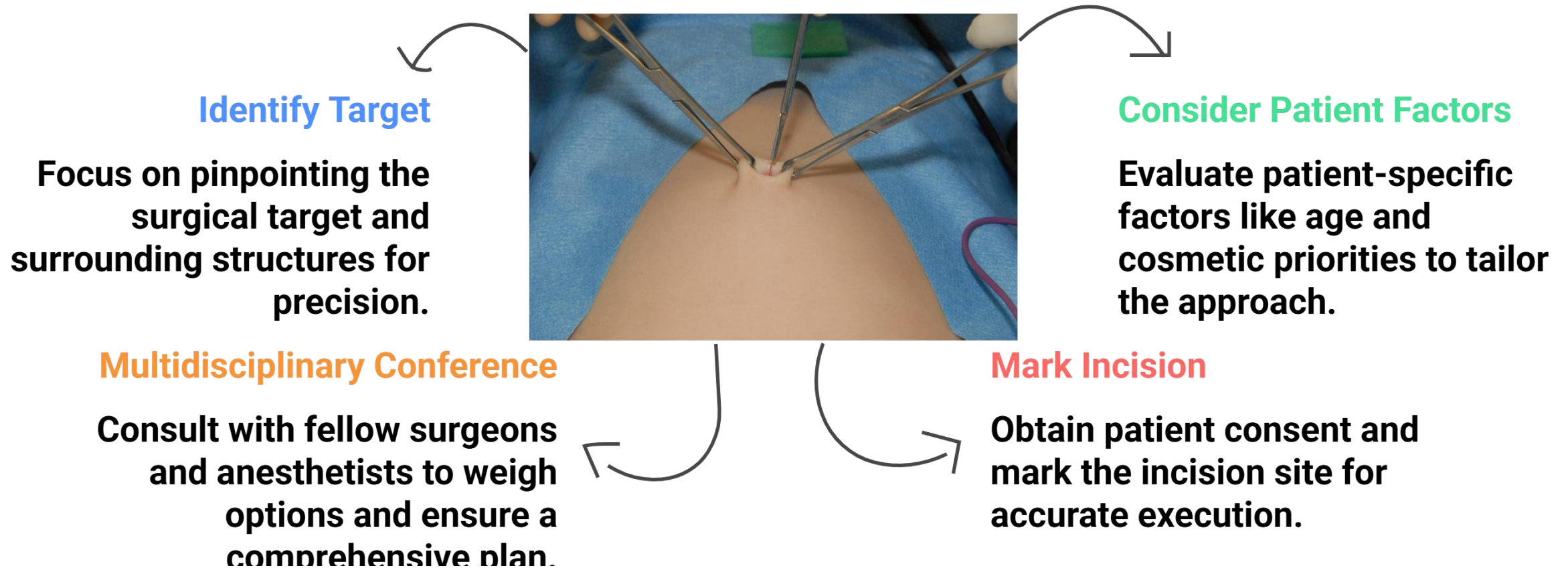
- **Kocher's (subcostal):** Gallbladder, liver.
- **Chevron/Rooftop:** Extensive upper abdominal access.
- **Mercedes Benz:** Bilateral Kocher's + upper midline for major hepatic cases.
- **Pfannenstiel and Maylard:** Pelvic access, caesarean, or GYN.
- **Thoracoabdominal:** For combined thoracic and abdominal surgeries



# Factors Influencing Surgical Incision



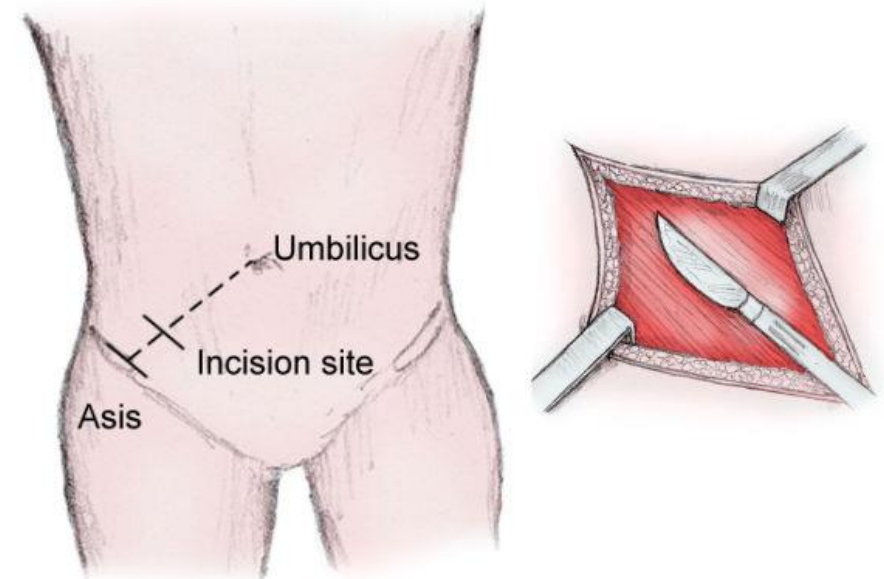
# Prototype — Incision Selection Process



# Prototype — Case Application

## For the presented case:

- Select McBurney's or Lanz incision for appendectomy.
- Justify choice: Less muscle trauma, better cosmetic outcome, faster healing.
- Simulate with diagrams or intraoperative photos.



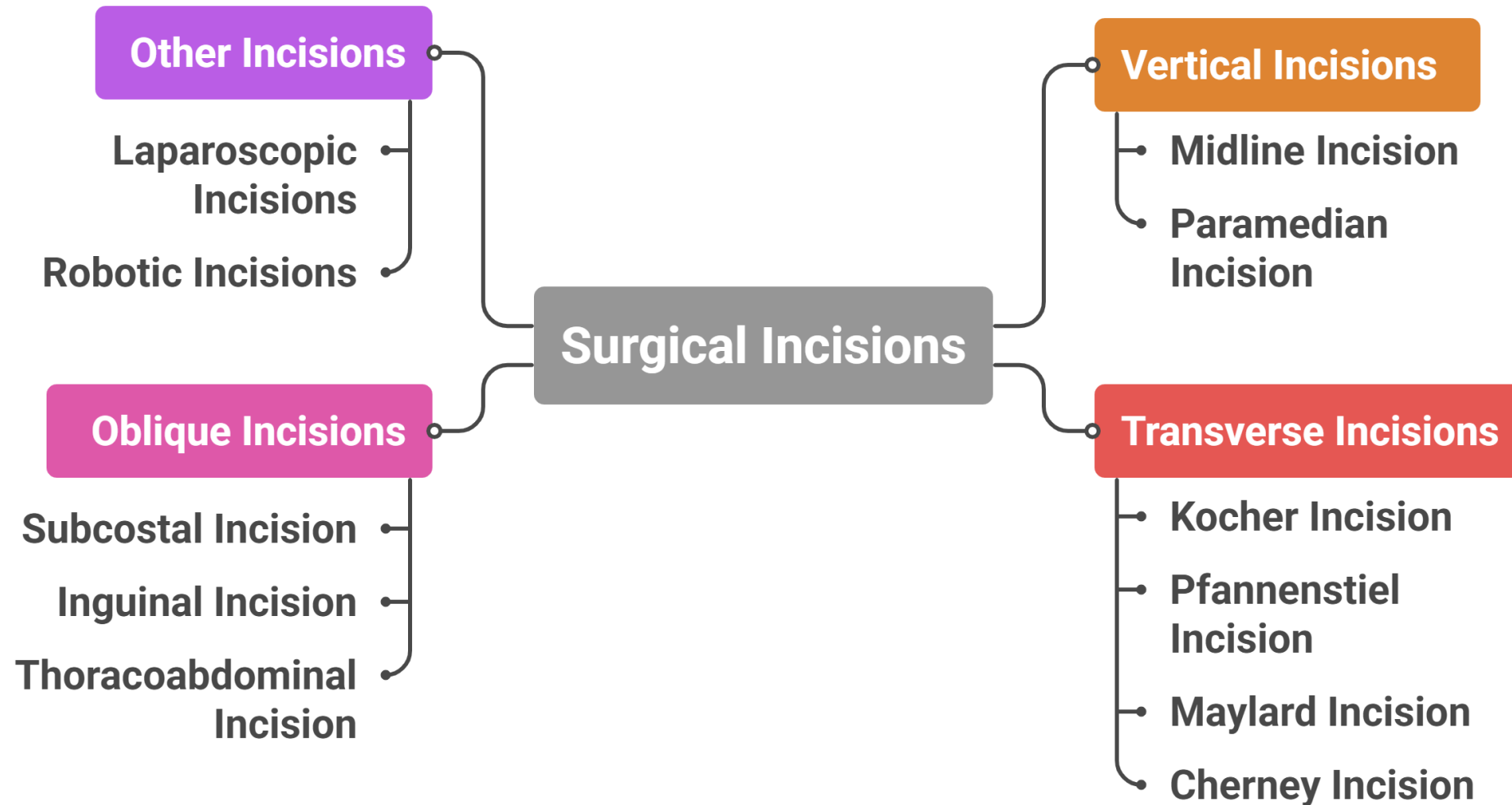
# Test — Outcome Evaluation

## Postoperative review:

- Assess wound healing, infection, and scar quality.
- Gather patient and team feedback.
- Adjust incision protocols as needed based on outcomes and satisfaction.



# Summary



# References

- StatPearls Surgical Access Incisions (Pfannenstiel, Maylard, Kocher's, McBurney's, and more):  
<https://www.ncbi.nlm.nih.gov/books/NBK541018/>
- Abdominal Incisions - Lanz, Kocher, Midline, McBurney's, Pfannenstiel:  
<https://teachmesurgery.com/examinations/gastrointestinal/incisions/>
- McBurney's Incision (history and clinical application):  
<https://jamanetwork.com/journals/jama/fullarticle/661492>
- Pfannenstiel Incision overview and surgical steps:  
<https://www.urology-textbook.com/pfannenstiel-incision.html>
- Wikipedia overview for general and special incisions:  
[https://en.wikipedia.org/wiki/Surgical\\_incision](https://en.wikipedia.org/wiki/Surgical_incision)