

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai Approved
by Pharmacy Council of India, New Delhi. Coimbatore -641035

COURSE NAME: HUMAN ANATOMY & PHYSIOLOGY (BP301 T)

YEAR : I SEM/I YEAR

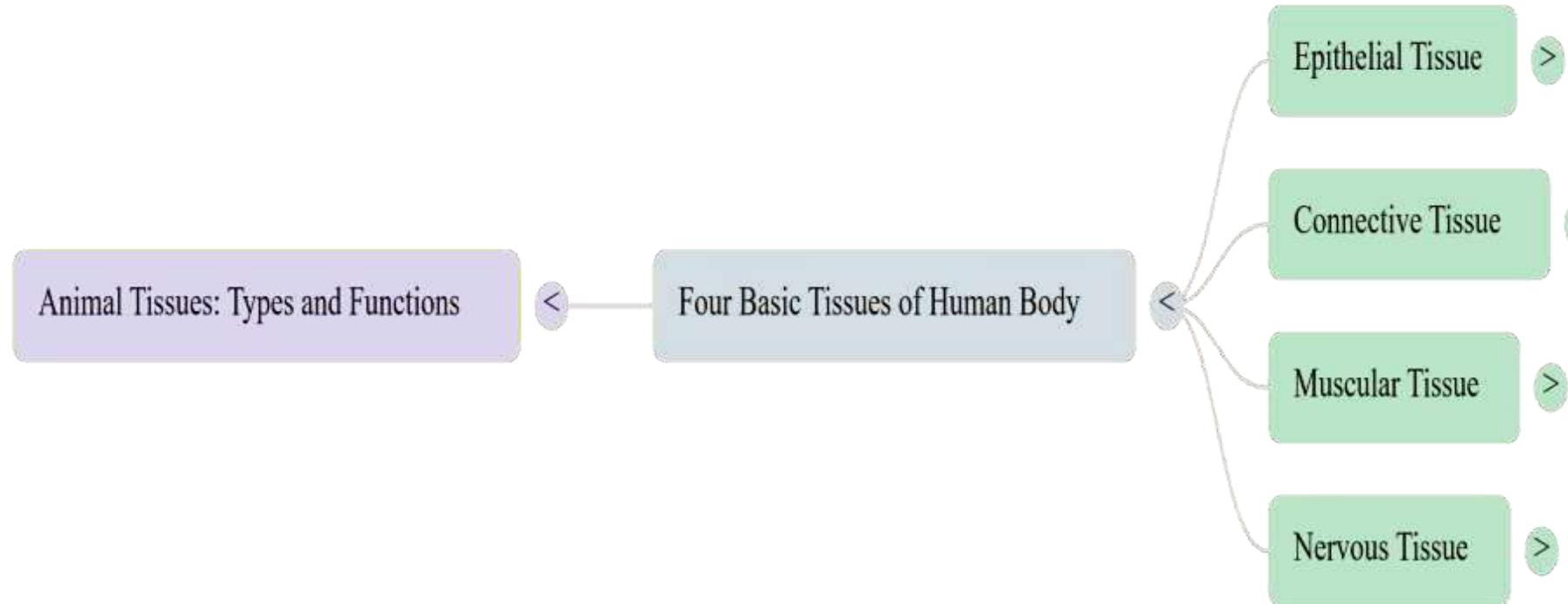
TOPIC 10 : TISSUE

[Epithelial, Muscular, Nervous, Connective]

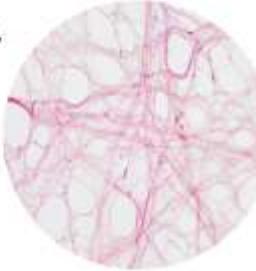
DESIGN THINKING IN TISSUES OF THE BODY

- 1. Empathize:** Understand biological needs — how tissues grow, repair, and interact.
- 2. Define:** Identify problems like tissue damage or organ failure.
- 3. Ideate:** Brainstorm biomaterial types, cell scaffolds, or regenerative strategies.
- 4. Prototype:** Develop lab-grown tissues or synthetic models.
- 5. Test:** Evaluate functionality, biocompatibility, and integration with human systems.

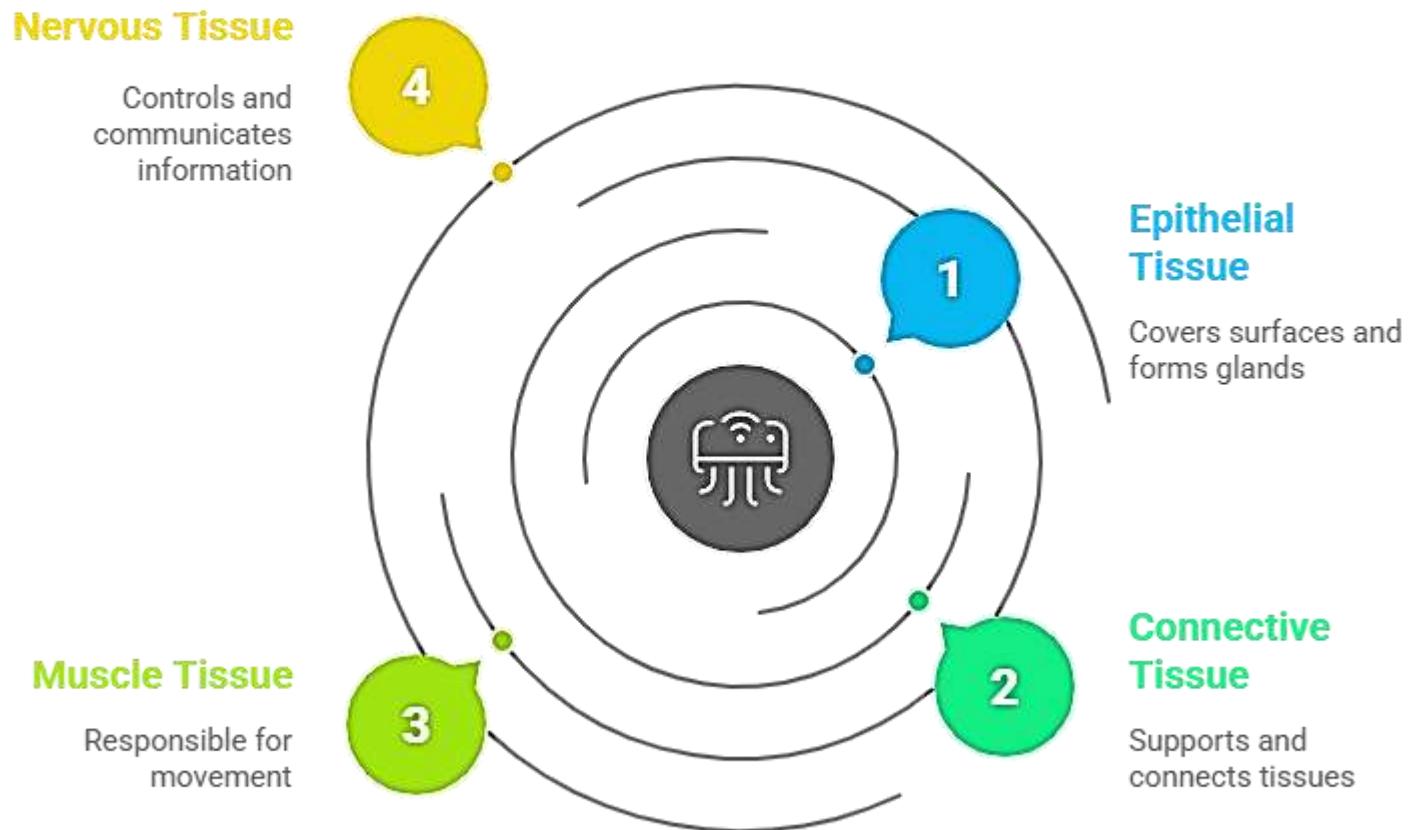
MINDMAP



INTRODUCTION

Types of Tissues	
Nervous Tissue  <p><i>Conducting electrical impulses, communication, regulating body functions</i></p> <ul style="list-style-type: none">• Neurons• Glial cells	Epithelial Tissue  <p><i>Protection, absorption, secretion, filtration, sensation</i></p> <ul style="list-style-type: none">• Simple squamous• Simple cuboidal
Muscle Tissue  <p><i>Movement, posture, heat production</i></p> <ul style="list-style-type: none">• Cardiac• Smooth• Skeletal	Connective Tissue  <p><i>Support, protection, transport, storage, insulation</i></p> <ul style="list-style-type: none">• Fat• Bone• Blood• Cartilage

Overview of Human Body Tissues

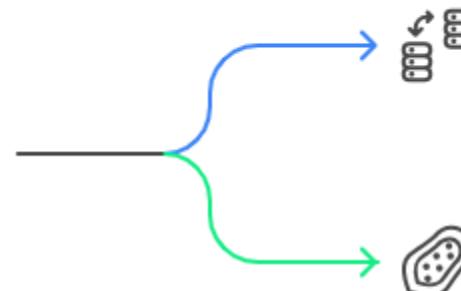


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EPIHELIAL TISSUE



How to classify epithelial tissue?



Number of Cell Layers

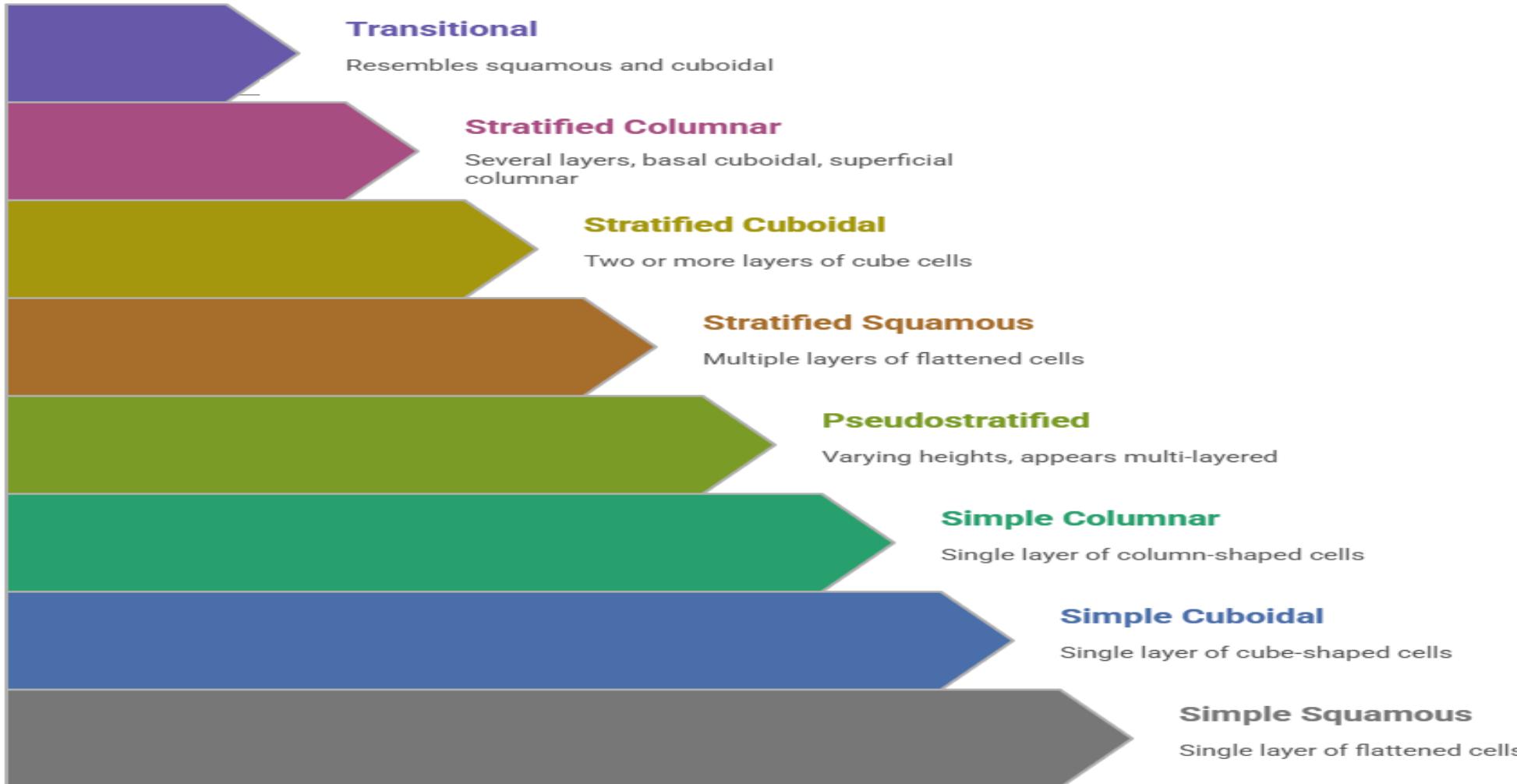
Determines if the tissue is simple or stratified.

Cell Shape

Identifies the specific type of epithelial tissue based on cell shape.

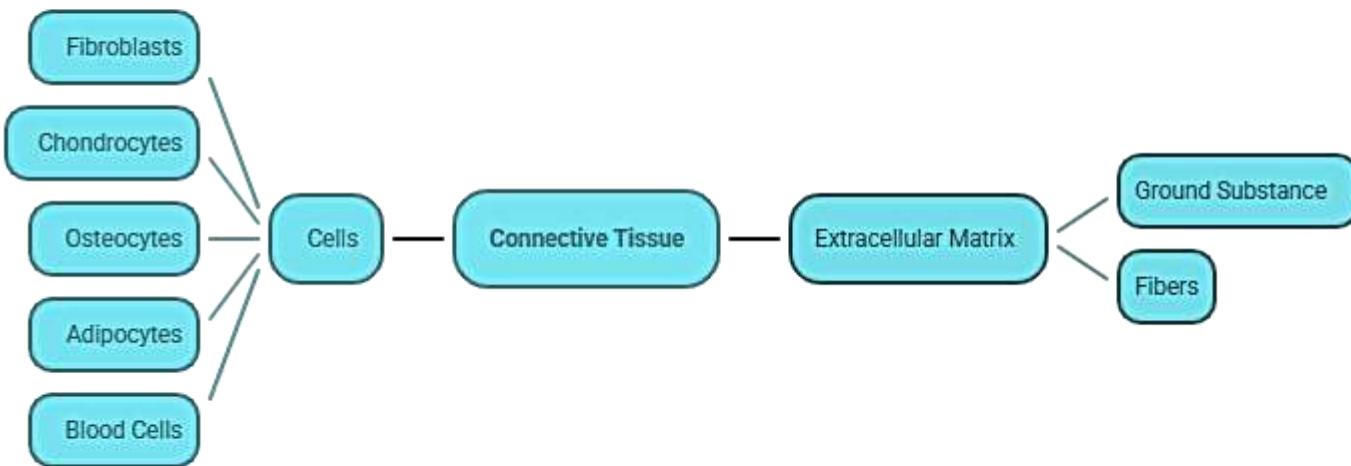
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Epithelial Tissue Hierarchy



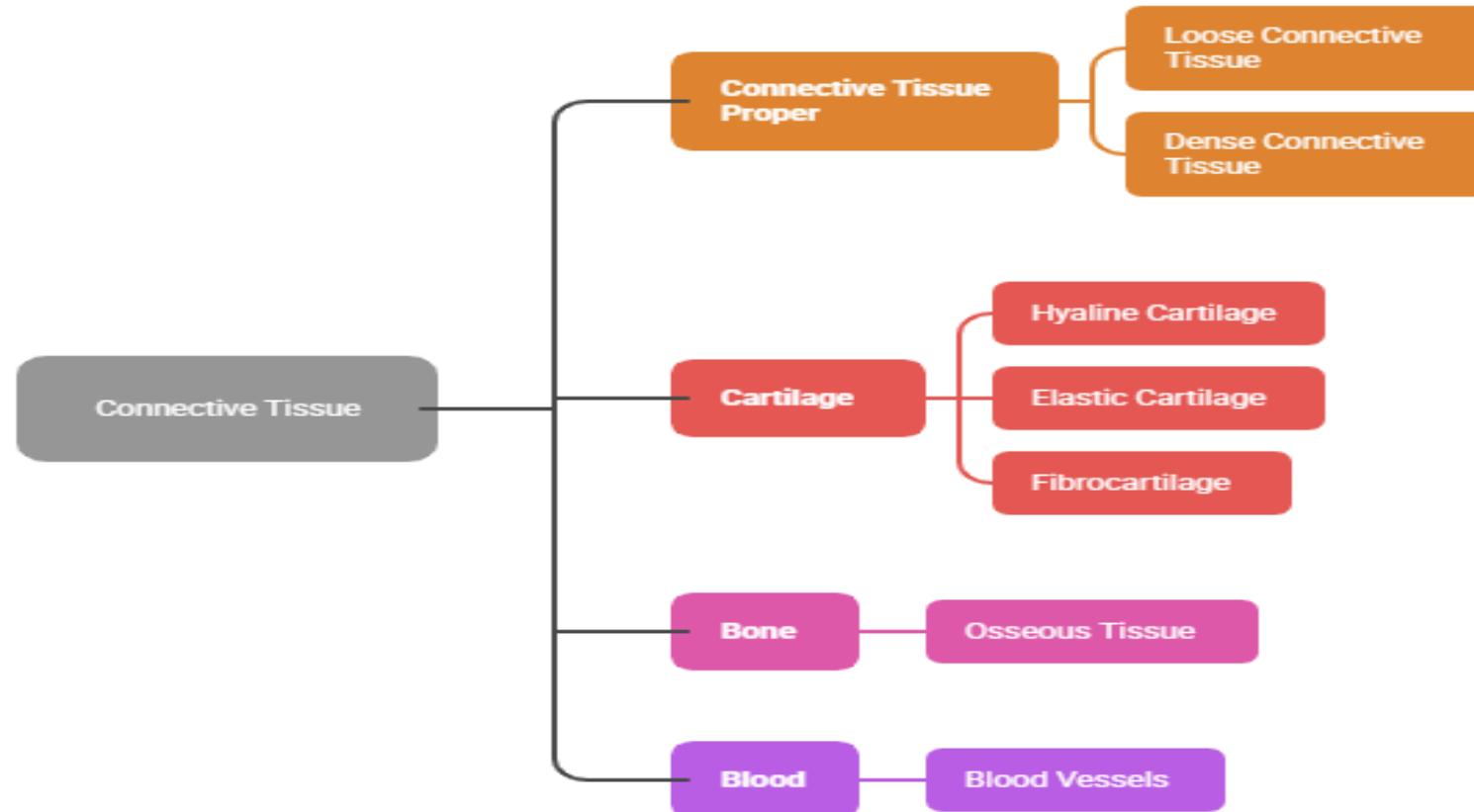
CONNECTIVE TISSUE

Components of Connective Tissue



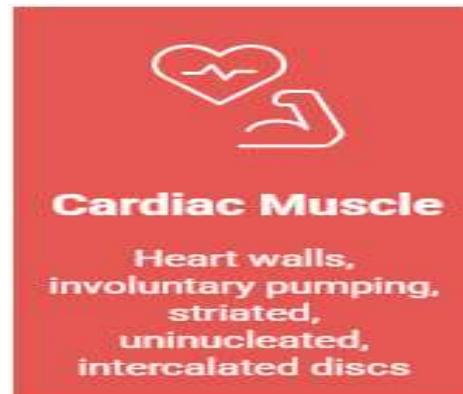
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Types and Functions of Connective Tissue



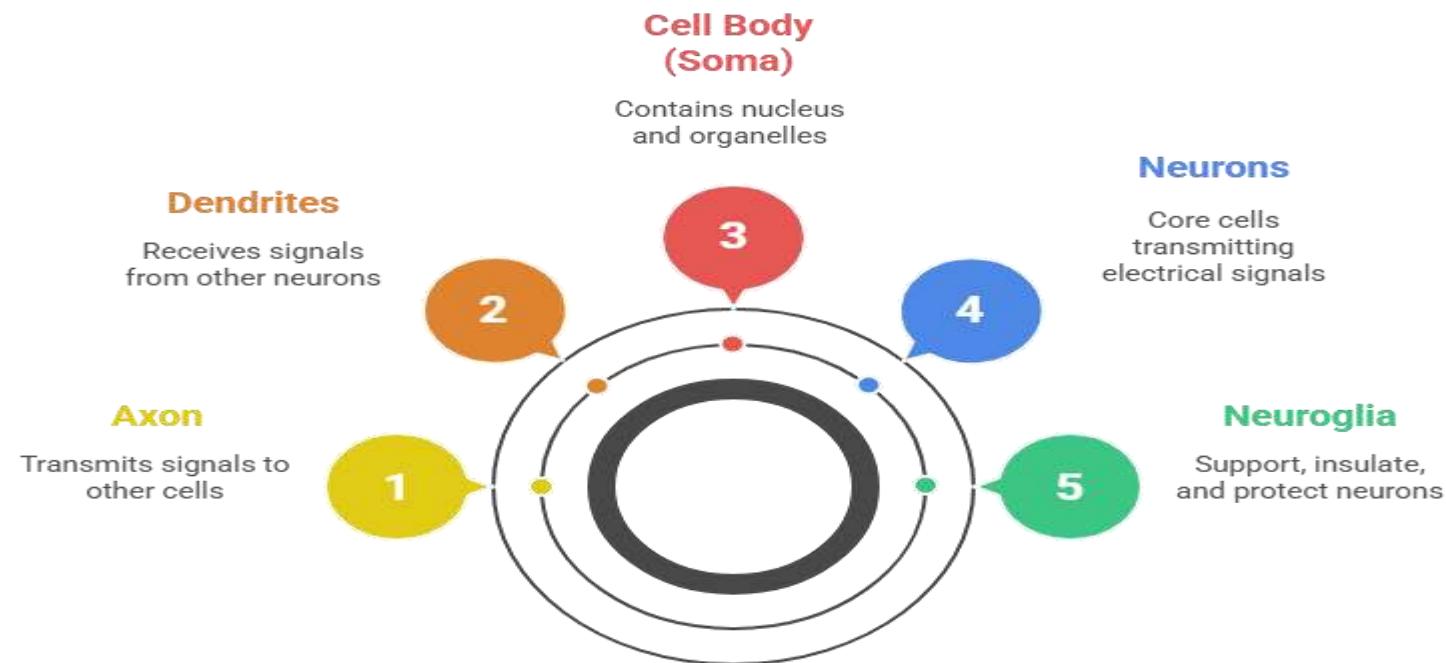
MUSCULAR TISSUE

What type of muscle tissue is being described?



NERVOUS TISSUE

Neuron Structure and Support Cells



SUMMARY

General Introduction

Provides an overview of the topic.

Classification

Categorizes tissues based on their types.

Functions

Describes the roles tissues play in the body.

Conclusion

Summarizes the key points of the discussion.



Definition

Explains the fundamental concept of tissues.

Locations

Identifies where different tissues are found.

Diagram

Visualizes the structure and relationships of tissues.

Reference

Cites sources used for information.

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IN CLASS ASSESSMENTS

- 1. What is the main function of epithelial tissue?**
 - a) Conduction of nerve impulses
 - b) Protection, secretion, and absorption
 - c) Support and binding of organs
 - d) Movement of the body

- 2. Which of the following is NOT a type of basic tissue in the human body?**
 - a) Epithelial tissue
 - b) Connective tissue
 - c) Nervous tissue
 - d) Skeletal tissue

REFERENCES

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- ✓ Tortora GJ, Derrickson B: Principles of Anatomy and Physiology, 15th Edition, Wiley, 2017.
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