

COURSE NAME: Anatomy-I

COURSECODE : 746273

TITLE : Chapter I

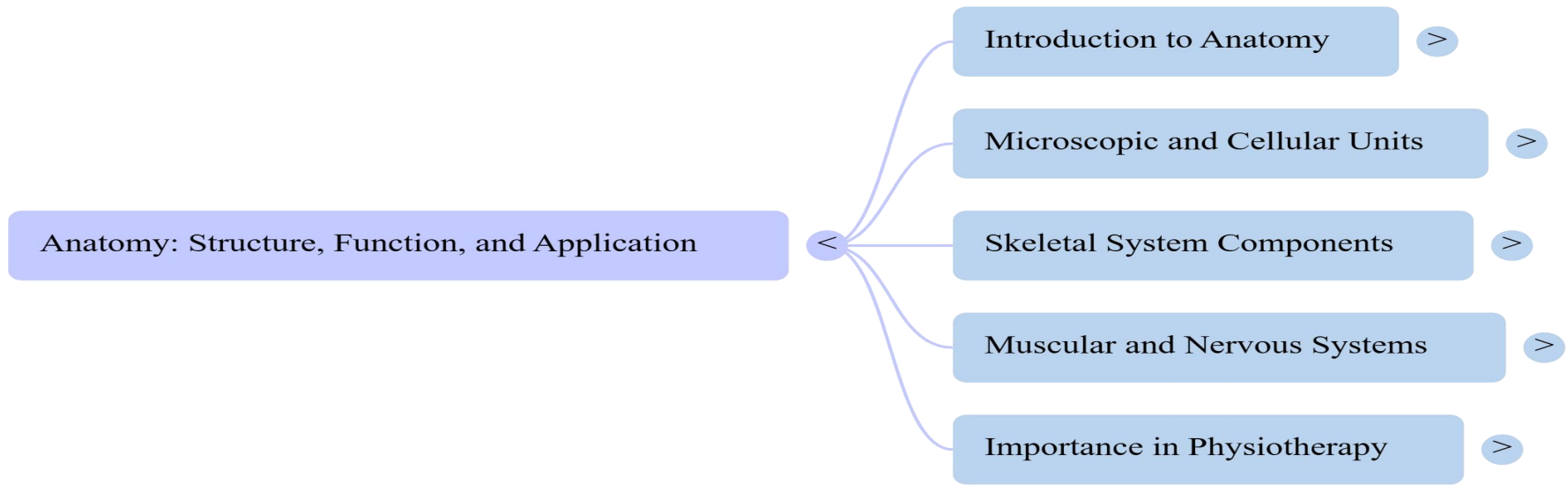
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DESIGNATION : Assistant professor

INTRODUCTION OF ANATOMY

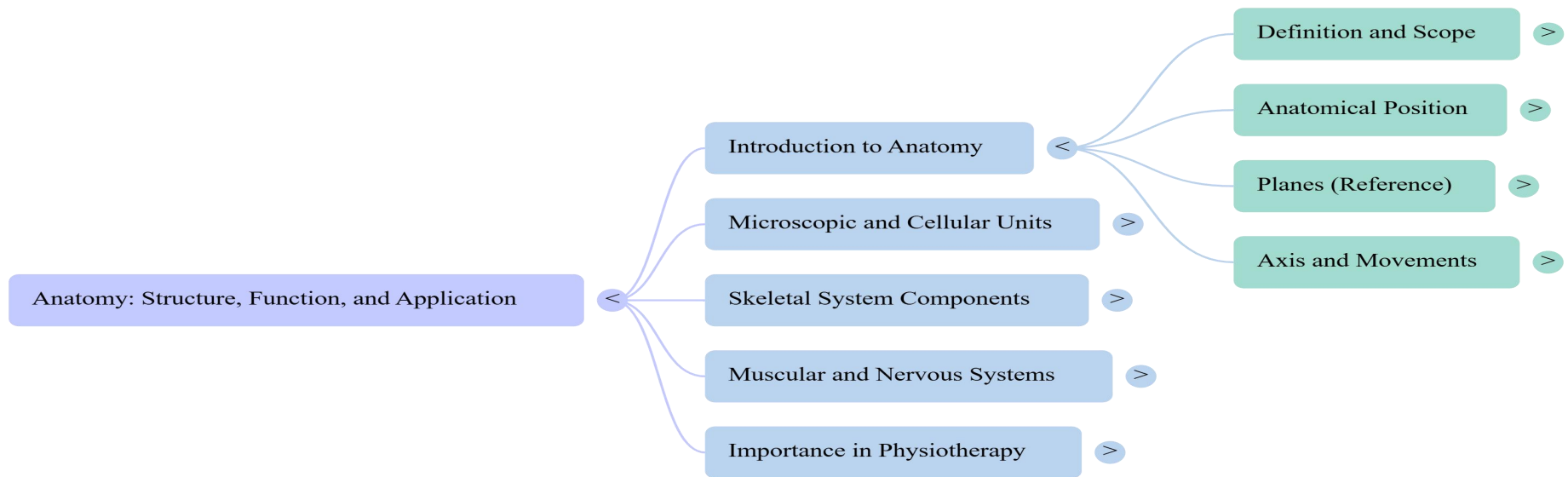
Definition and Scope of Anatomy

- Anatomy – Study of structure and form of the human body.
- Subdivisions – Gross, Microscopic, Developmental, Surface, Applied.

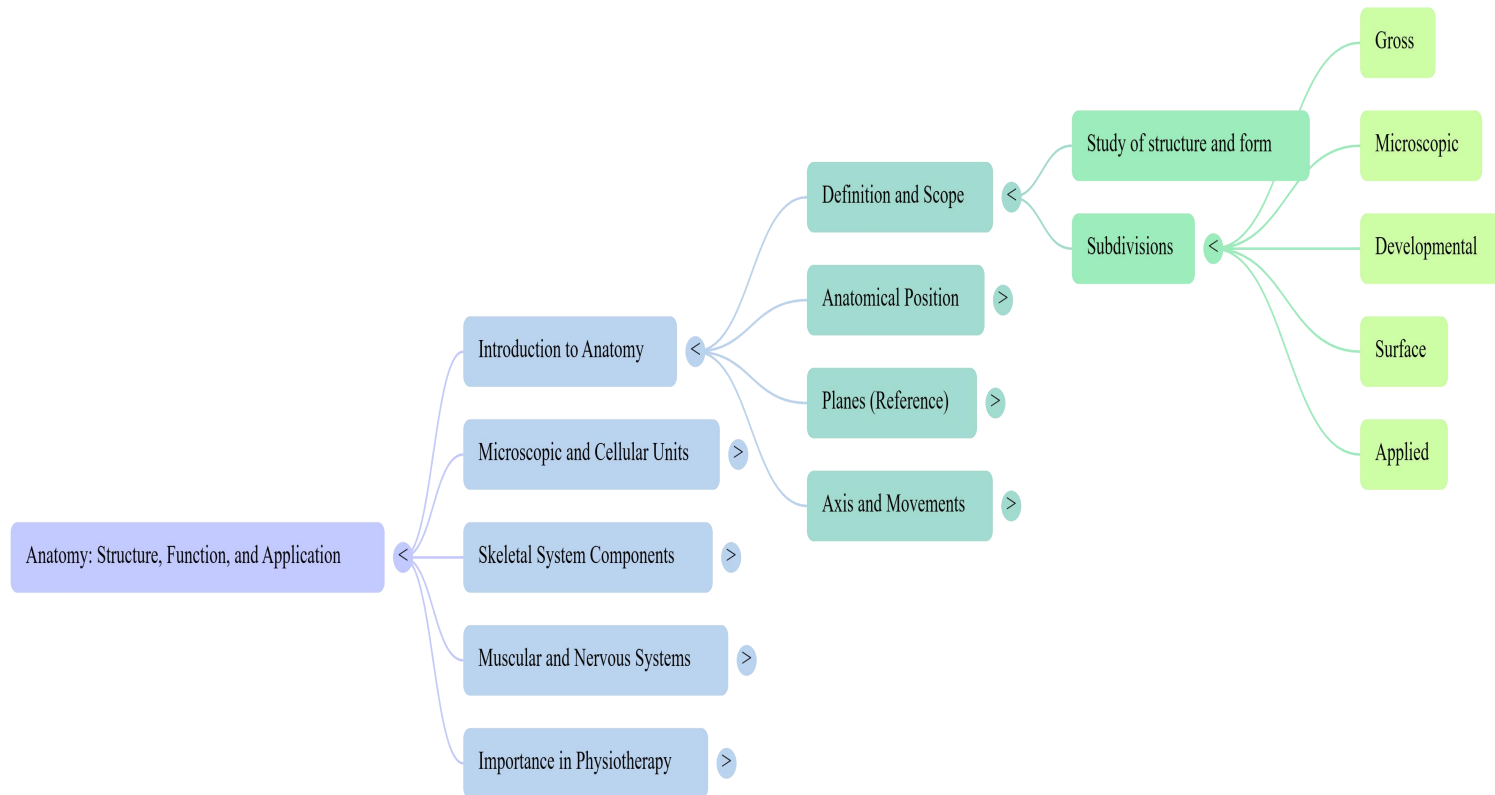


Anatomical Position and Planes

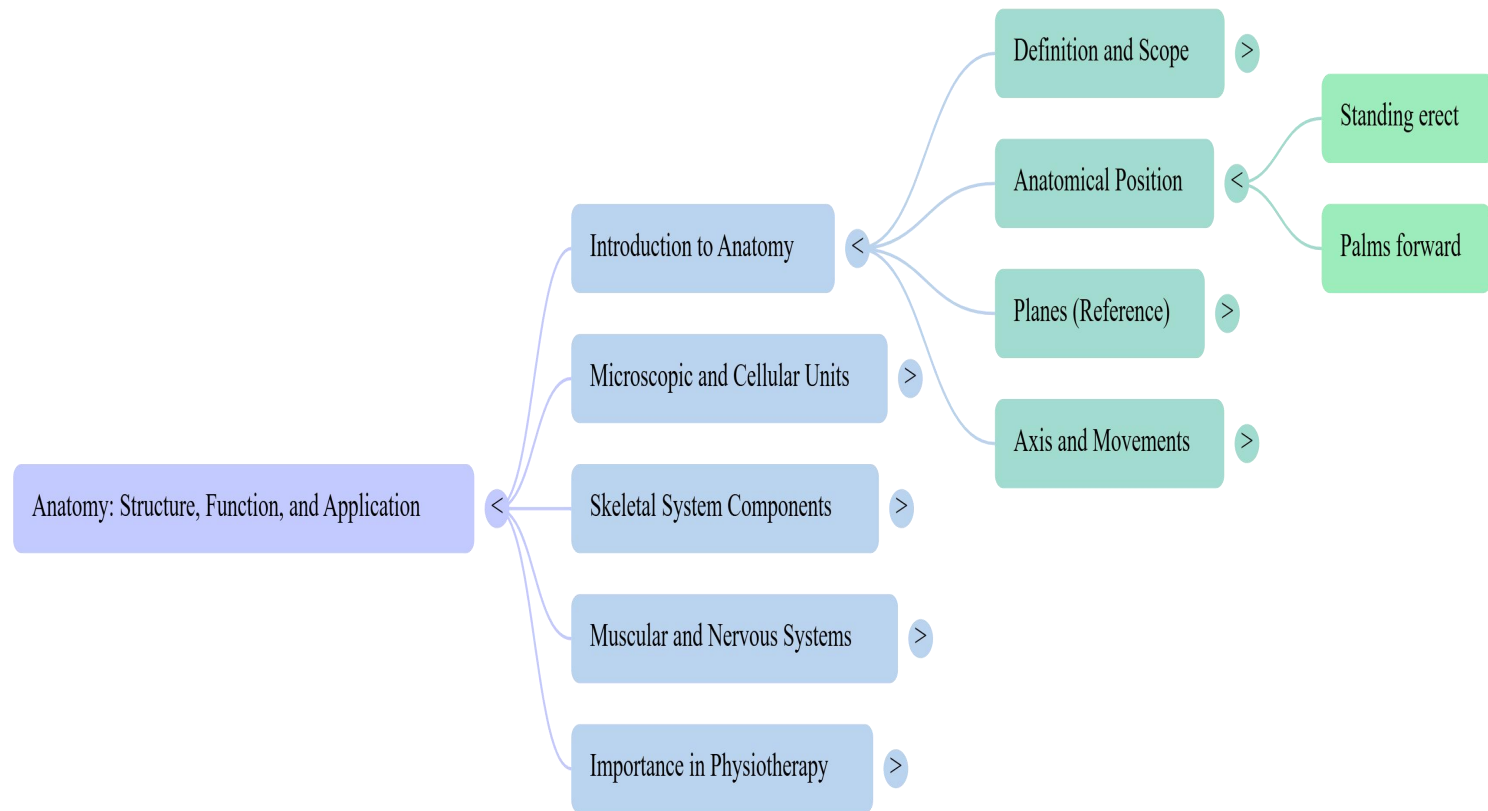
- Anatomical position: Standing erect, palms forward.
- Planes: Sagittal, Coronal, Transverse.
- Used as reference in movement and structure.



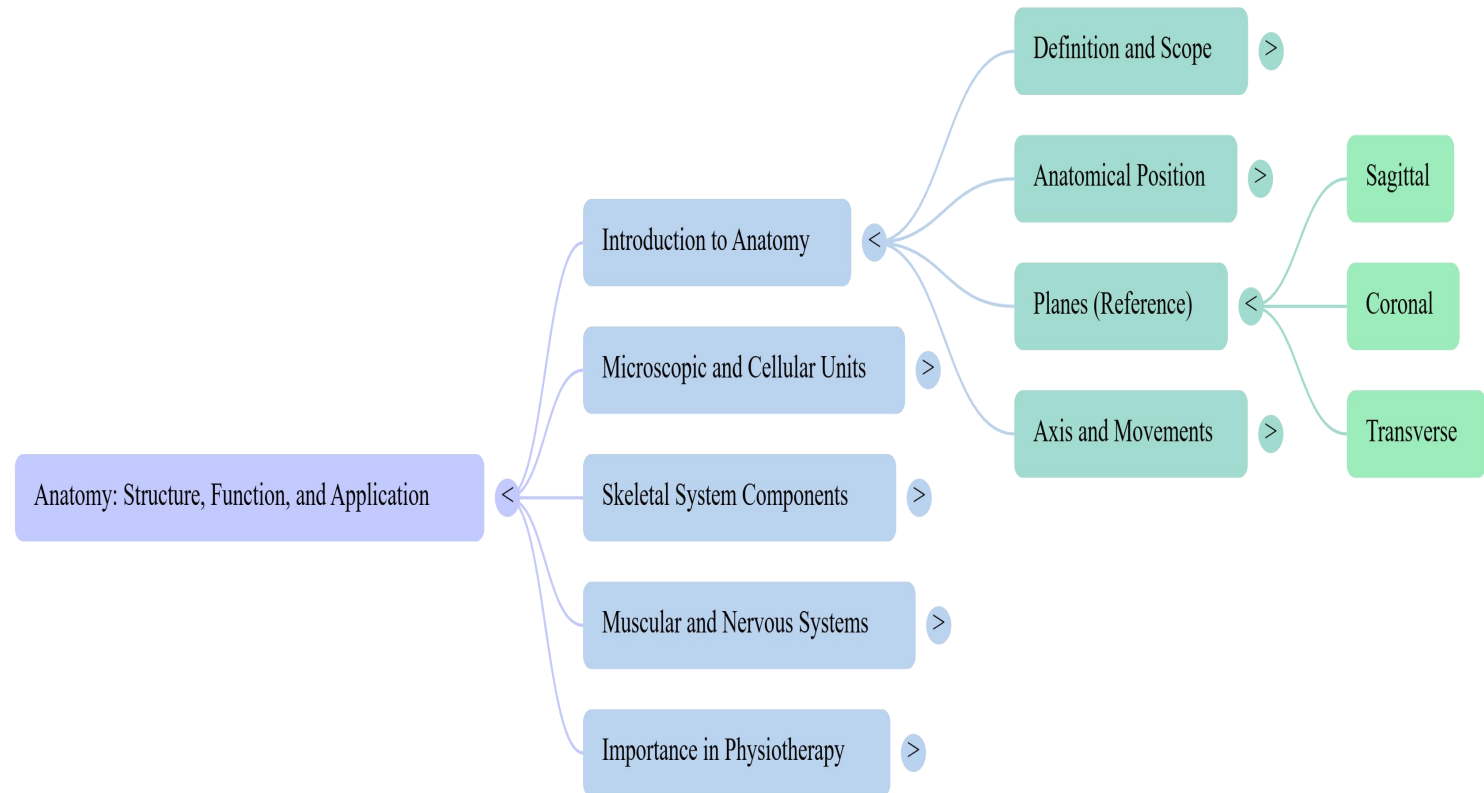
Subdivision of anatomy



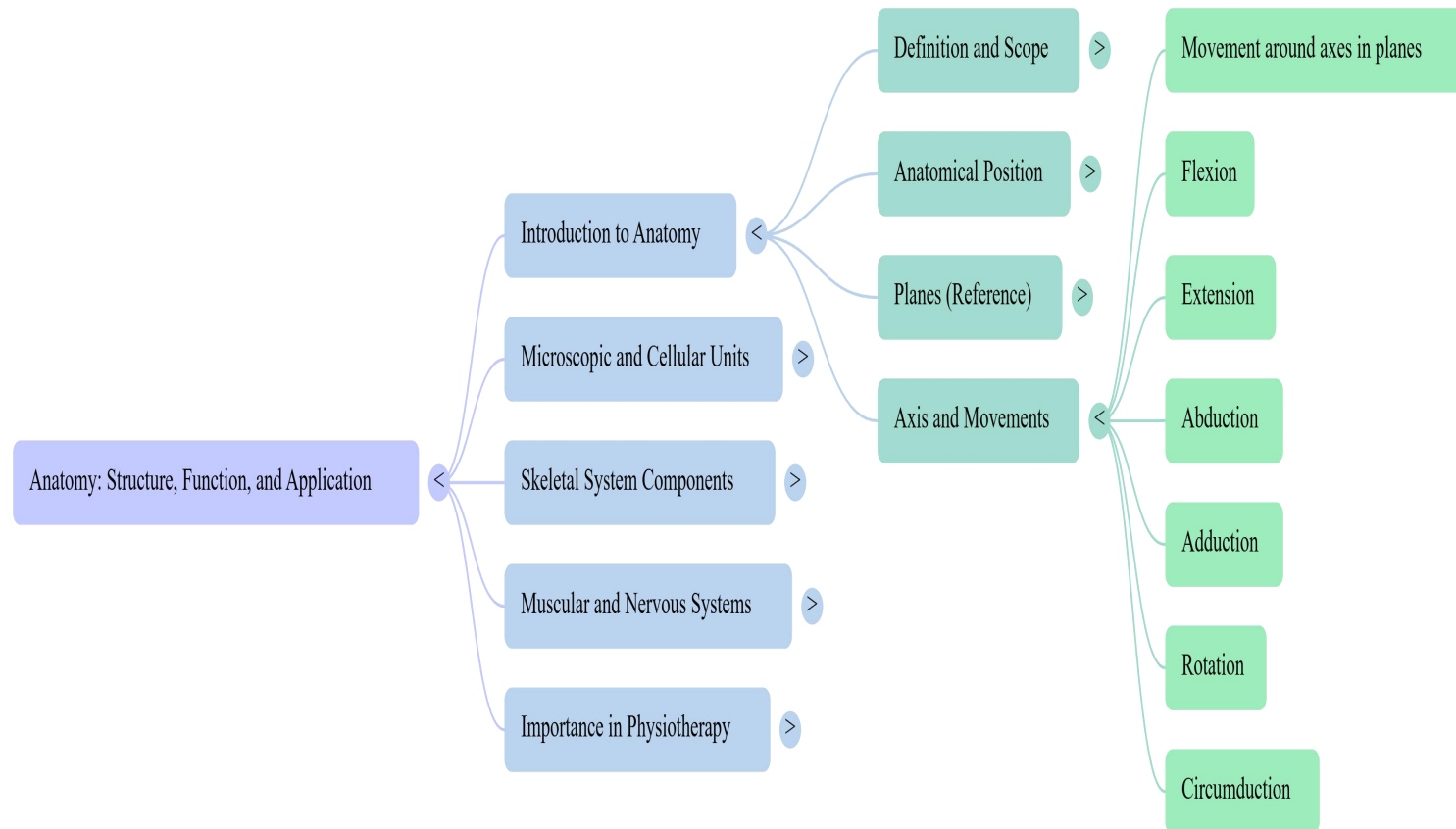
Anatomical position



Planes

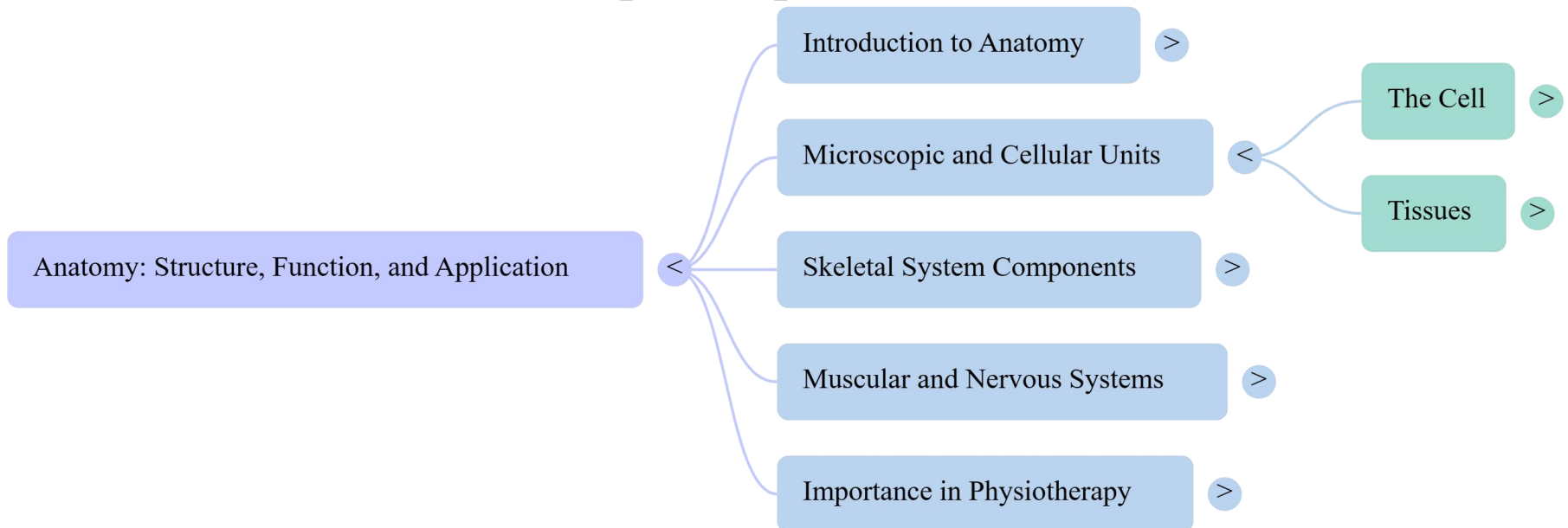


Axis & movements

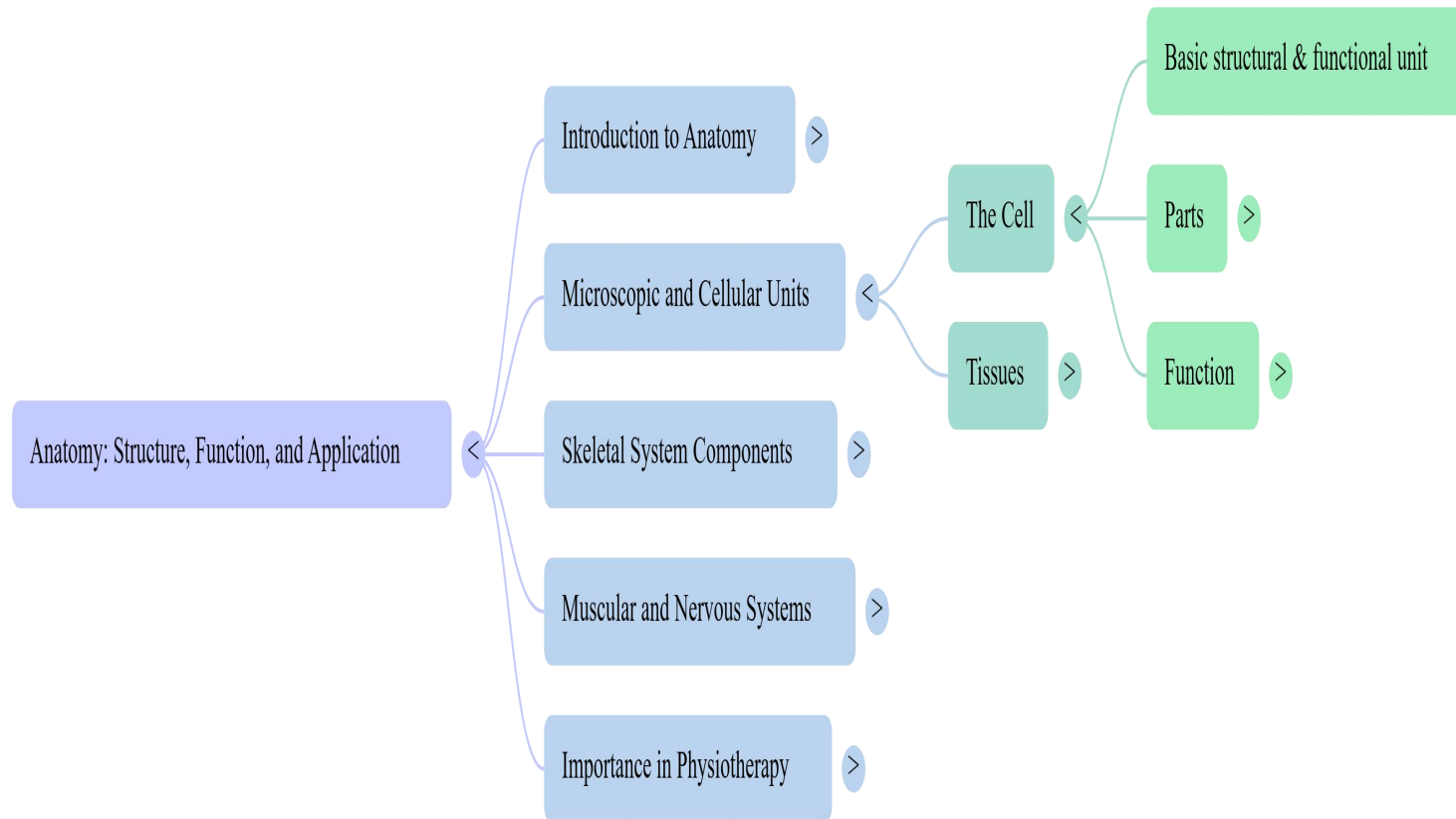


The Cell

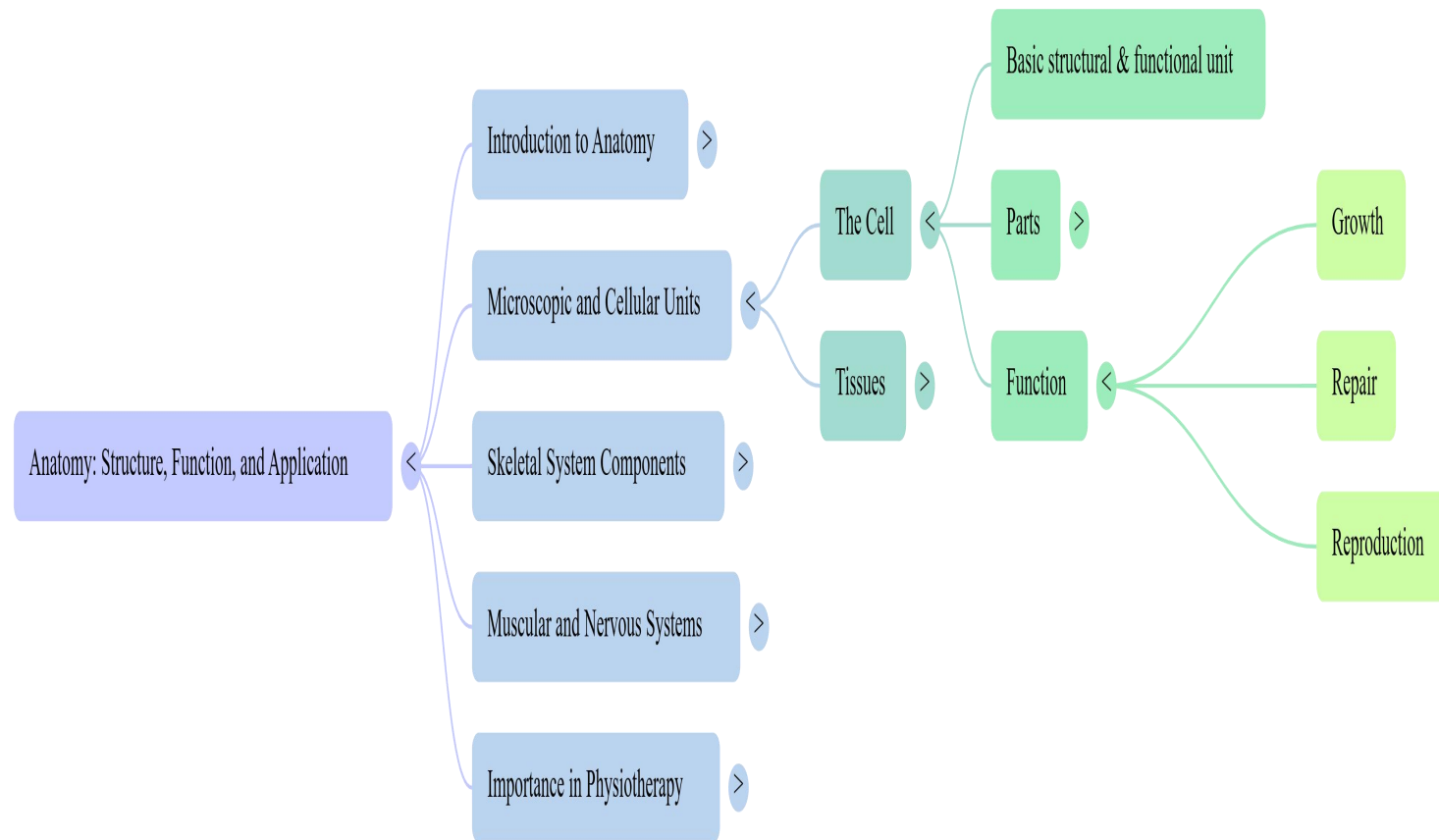
- Basic structural & functional unit of life.
- Parts: Cell membrane, cytoplasm, nucleus.
- Function: Growth, repair, reproduction.



Cell

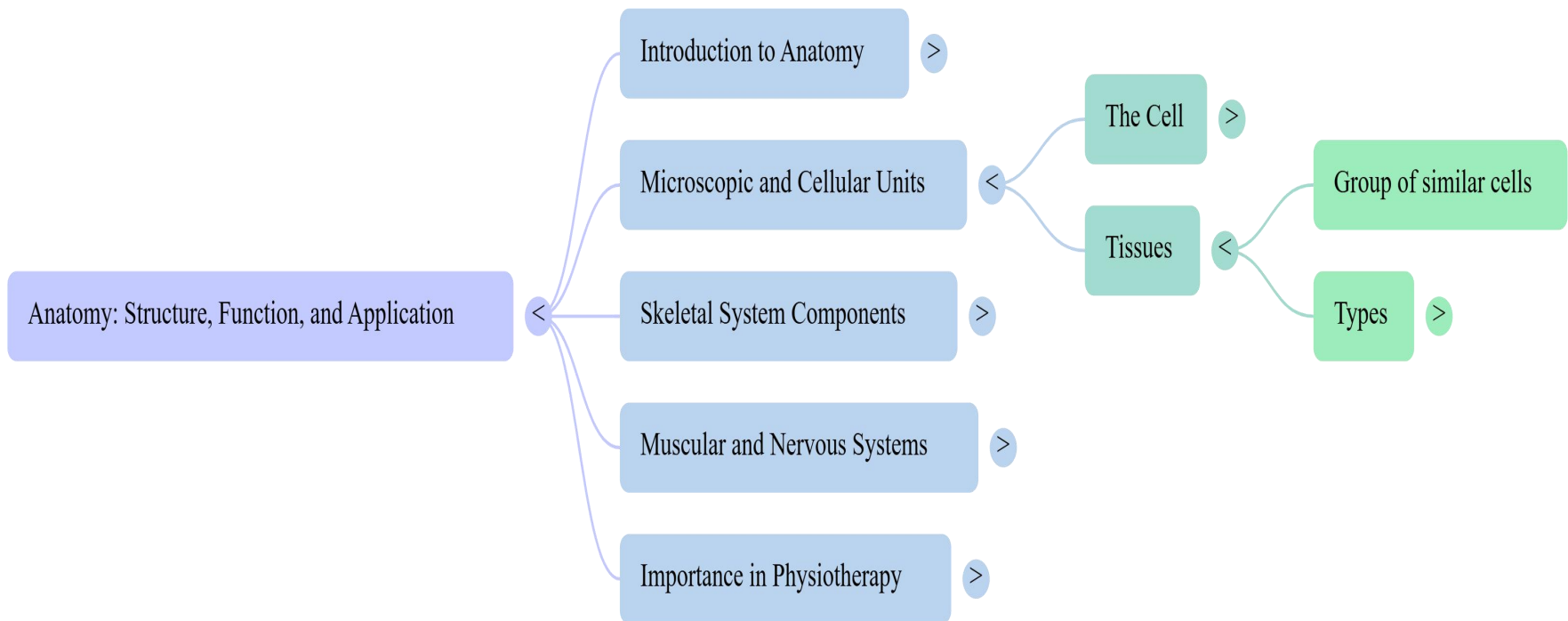


Functions of cells

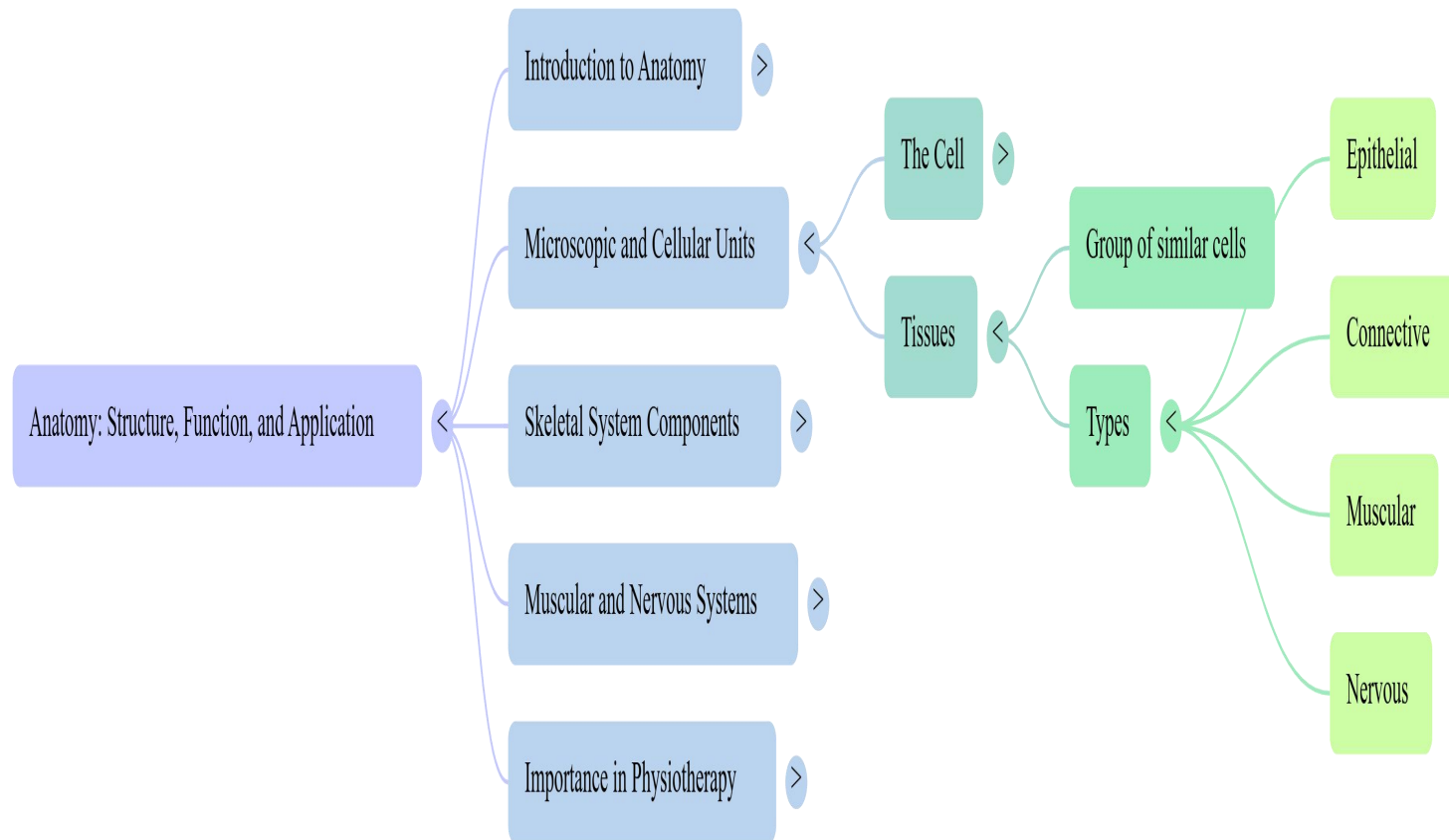


Tissues

- Group of similar cells performing a function.
- Types: Epithelial, Connective, Muscular, Nervous.

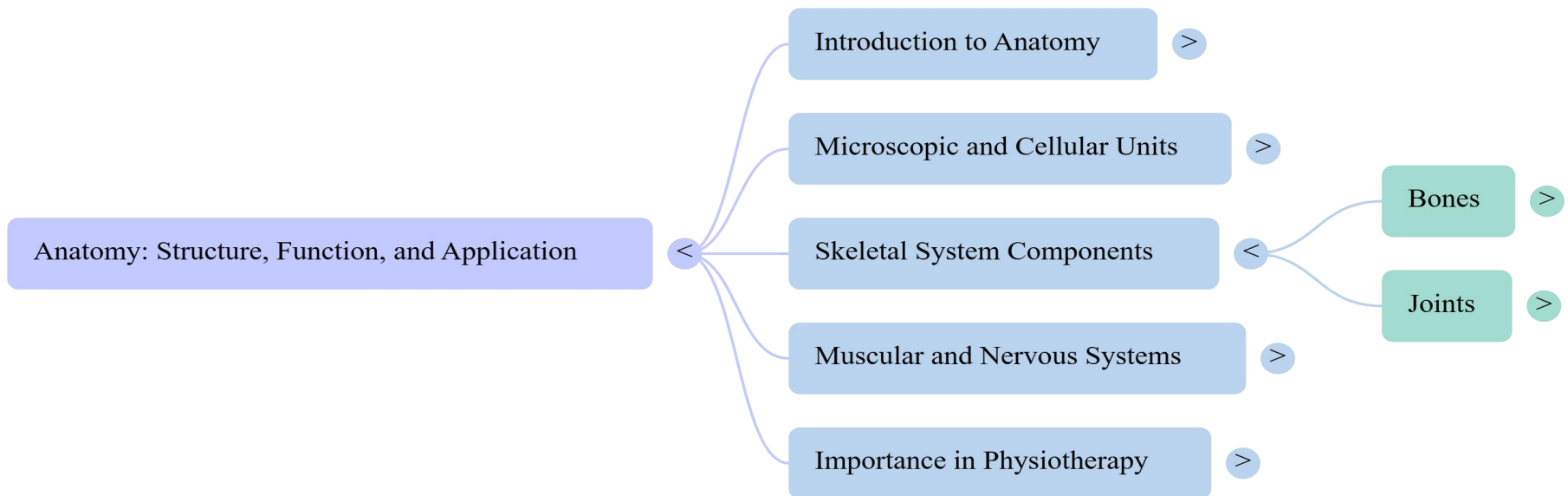


Types of cell

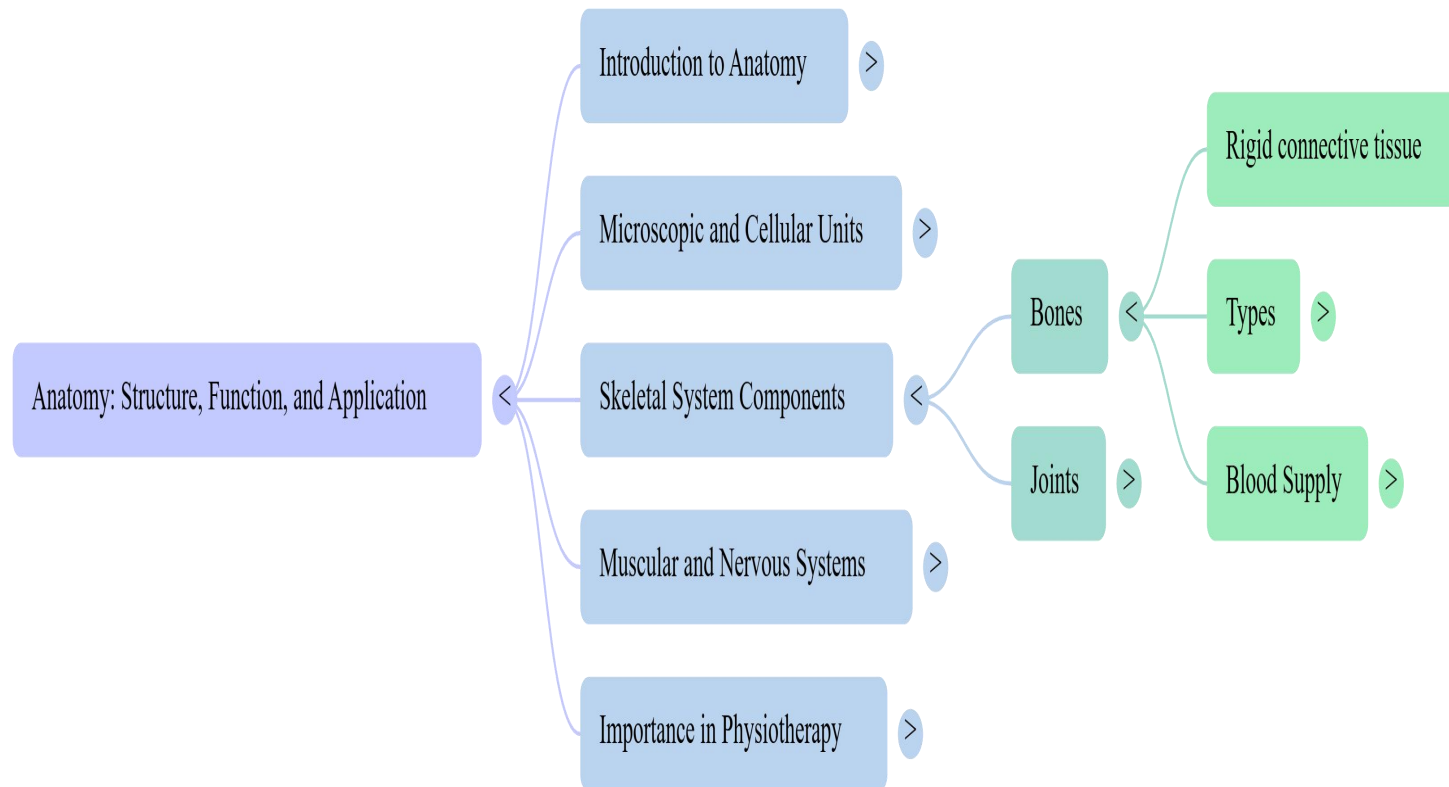


Bones

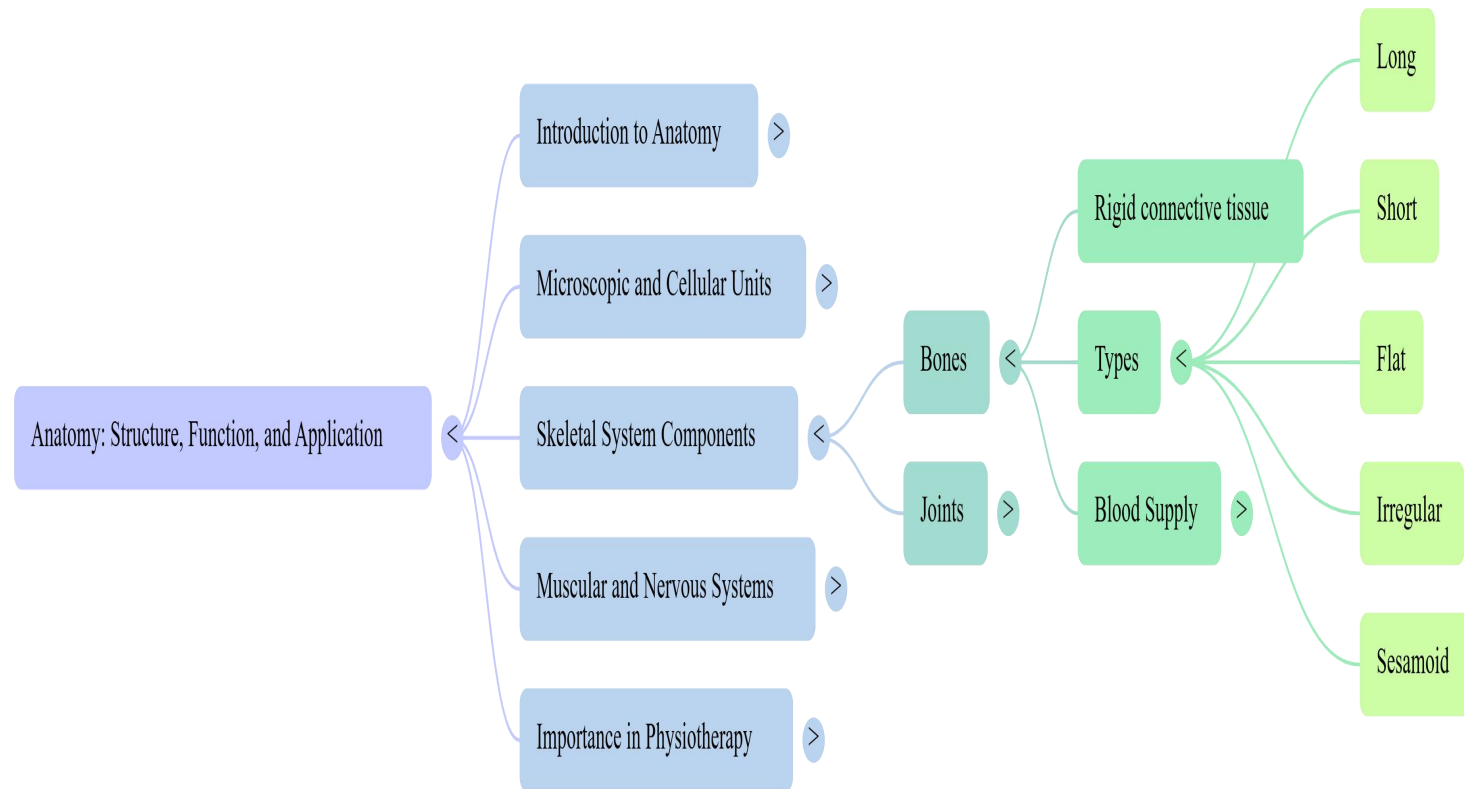
- Rigid connective tissue forming skeleton.
- Types: Long, short, flat, irregular, sesamoid.
- Blood supply: Nutrient artery, periosteal vessels.



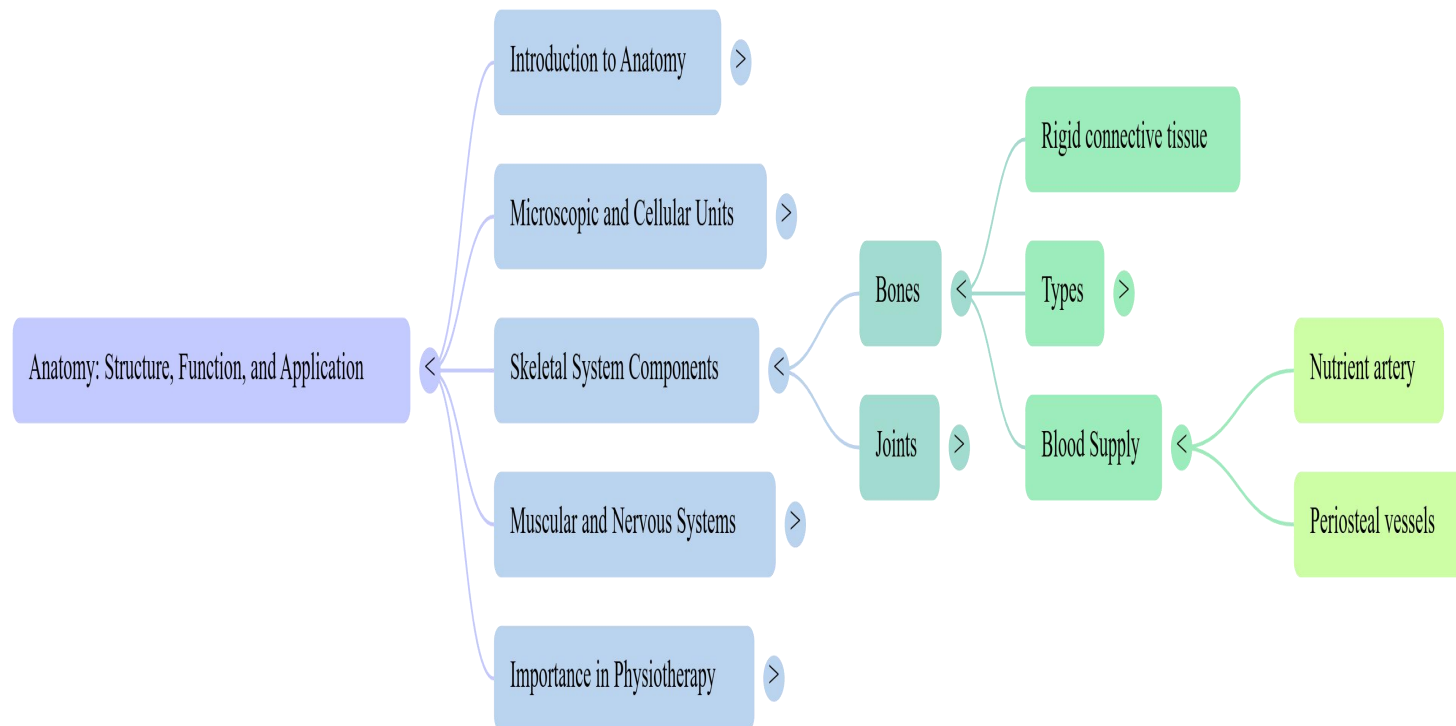
Bones



Types of bones



Blood supply



Joints

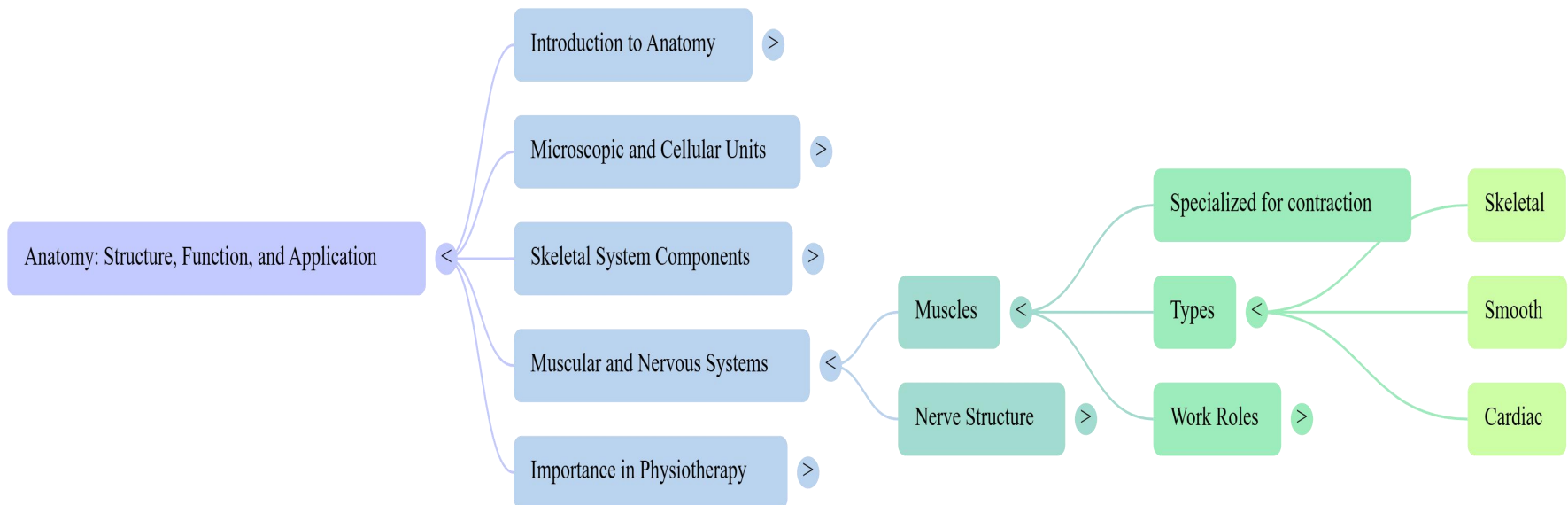
- Junction between bones.
- Types: Fibrous, Cartilaginous, Synovial.
- Synovial joint: Articular cartilage, capsule, fluid.

Axis and Movements

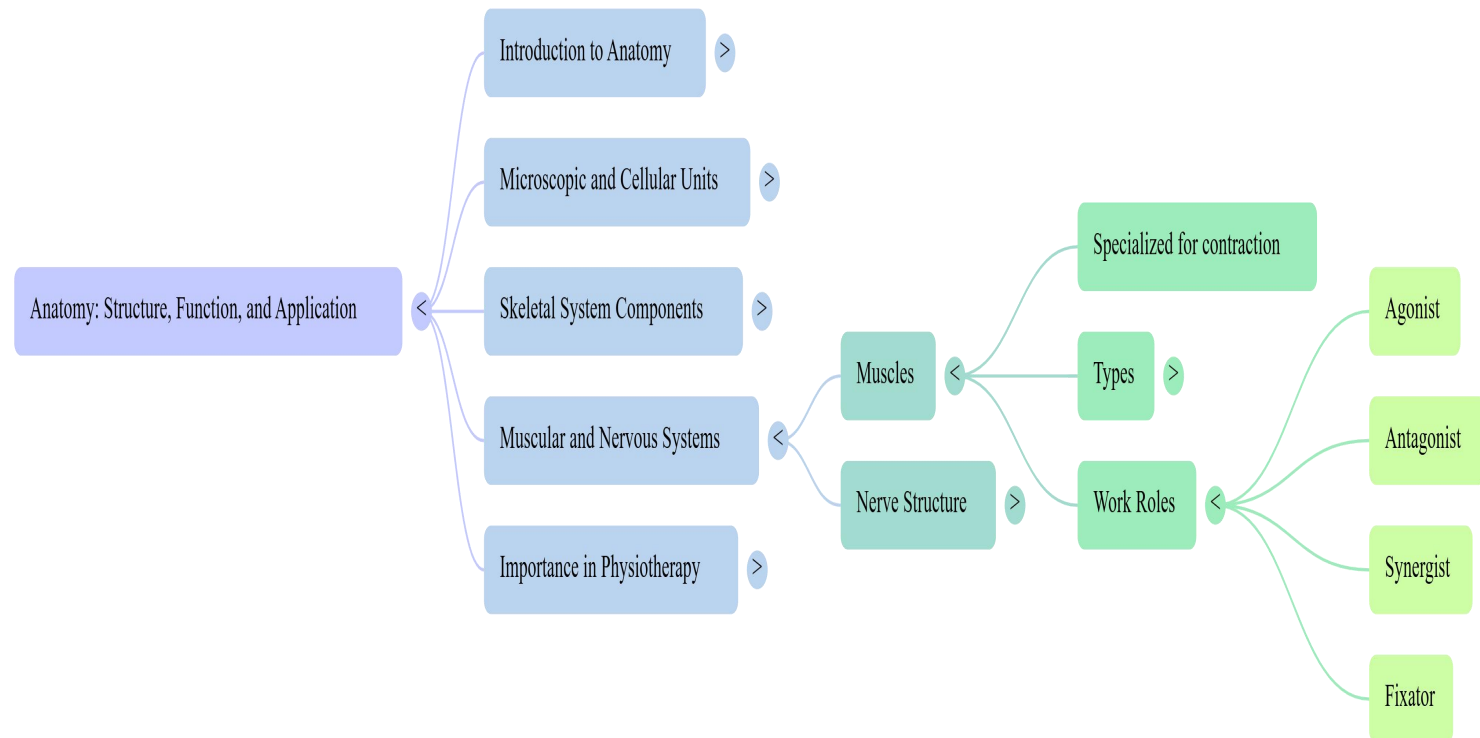
- Movements occur around axes in planes.
- Types: Flexion, Extension, Abduction, Adduction, Rotation, Circumduction.

Muscles

- Specialized for contraction.
- Types: Skeletal, Smooth, Cardiac.
- Work: Agonist, Antagonist, Synergist, Fixator.

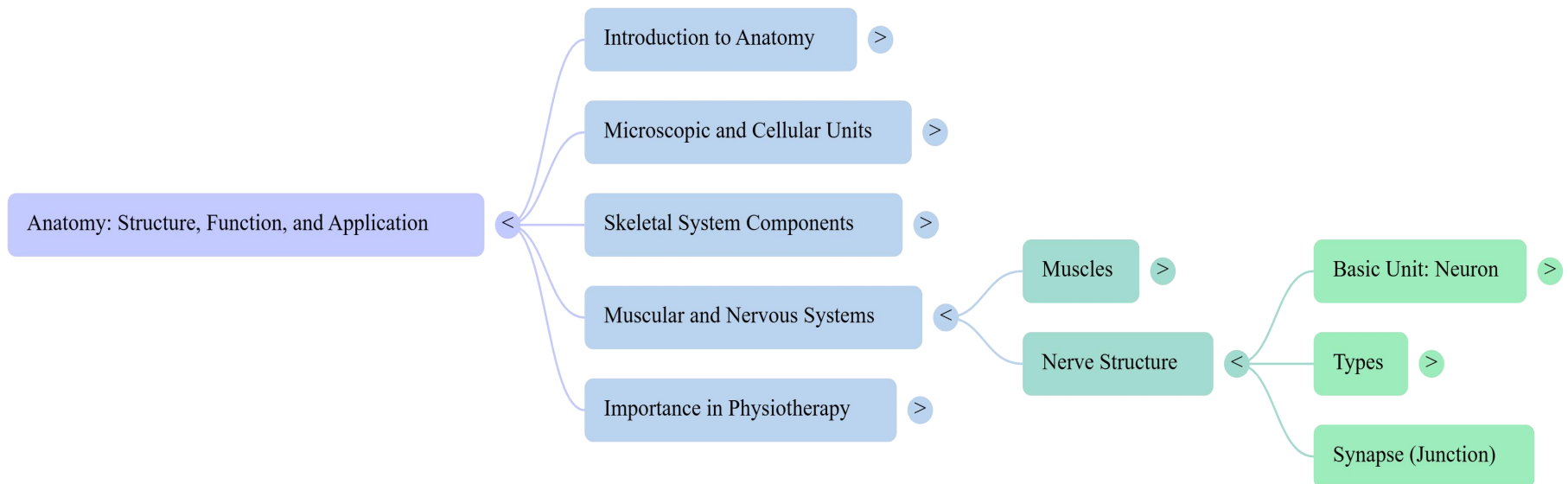


Work roles of muscles

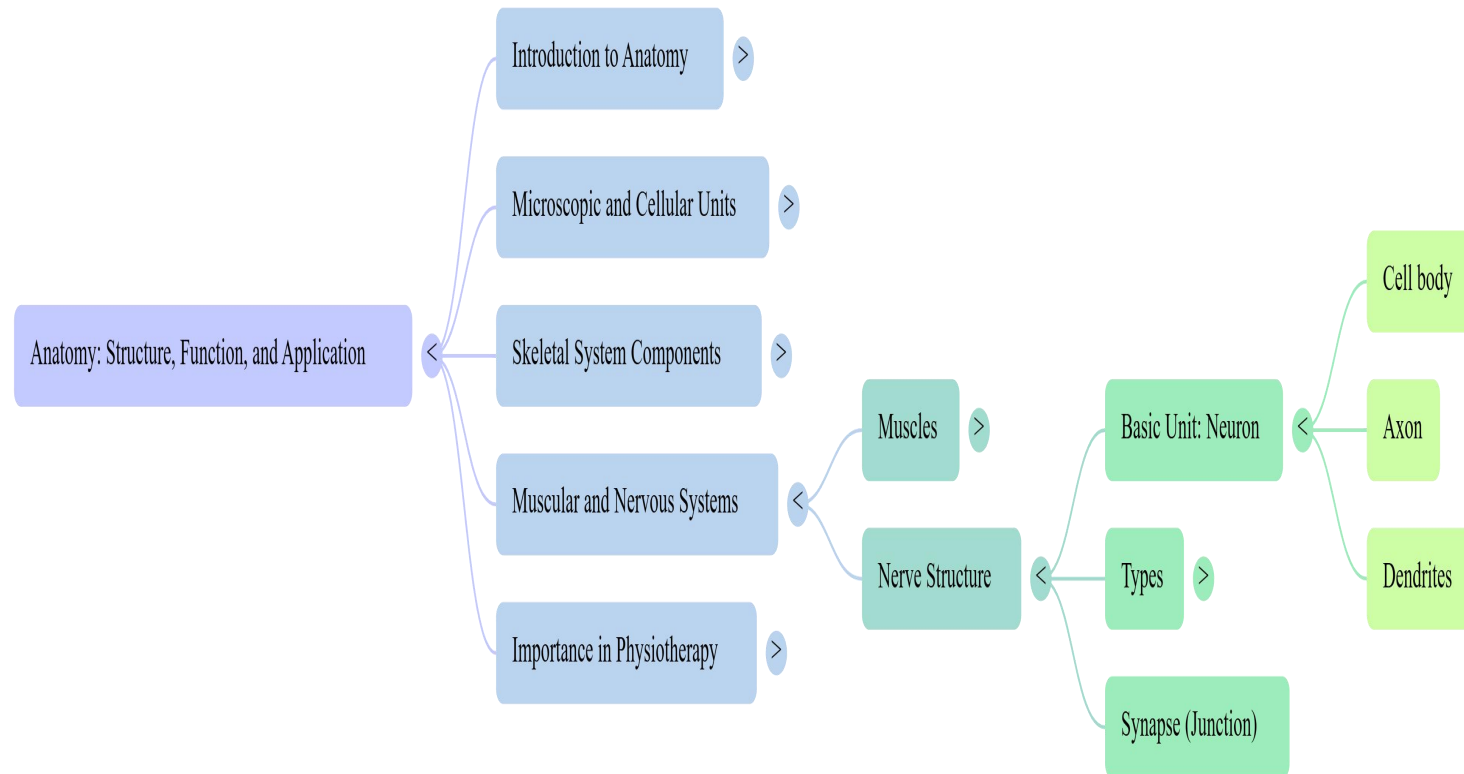


Nerve Structure

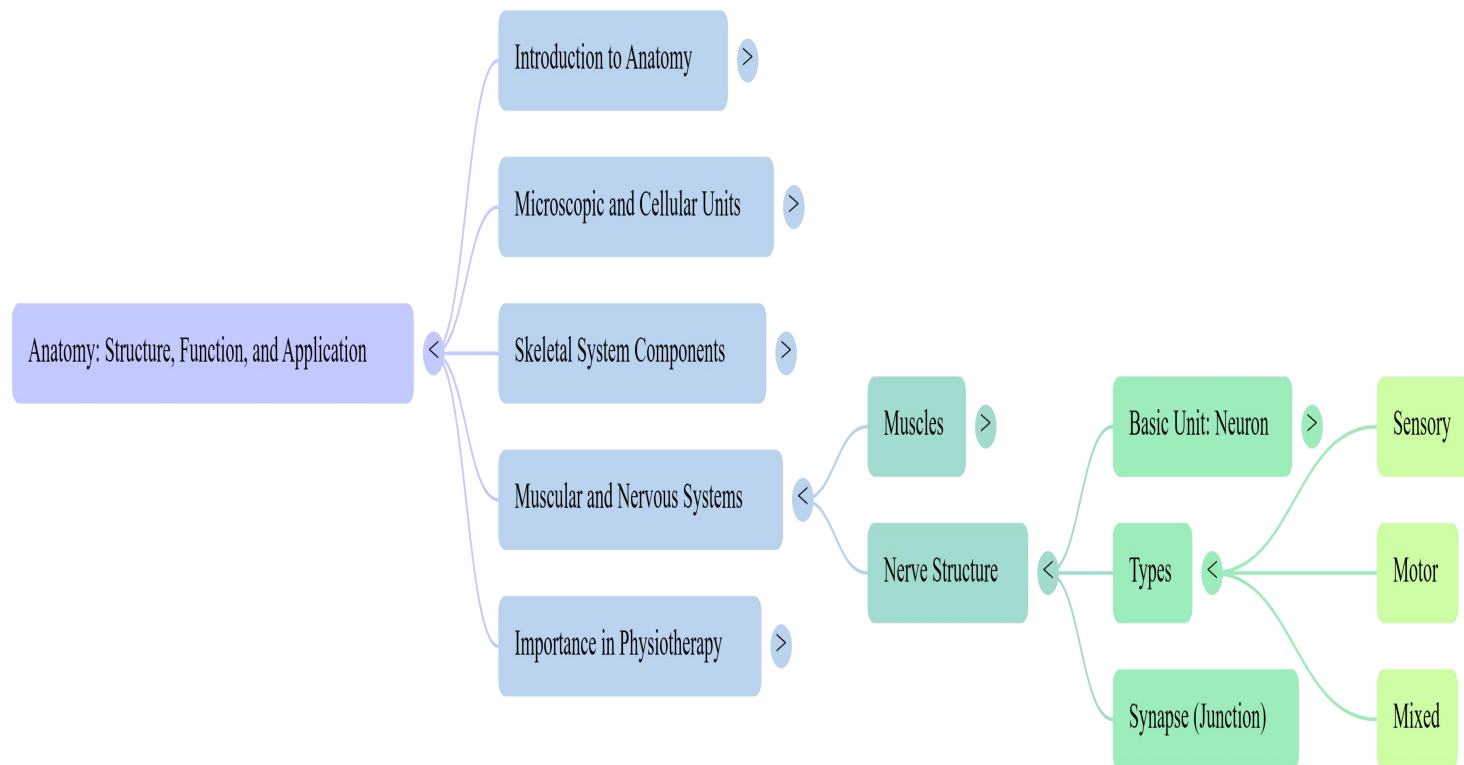
- Basic unit: Neuron – cell body, axon, dendrites.
- Types: Sensory, Motor, Mixed.
- Synapse – Junction between neurons.



Basic unit of neuron

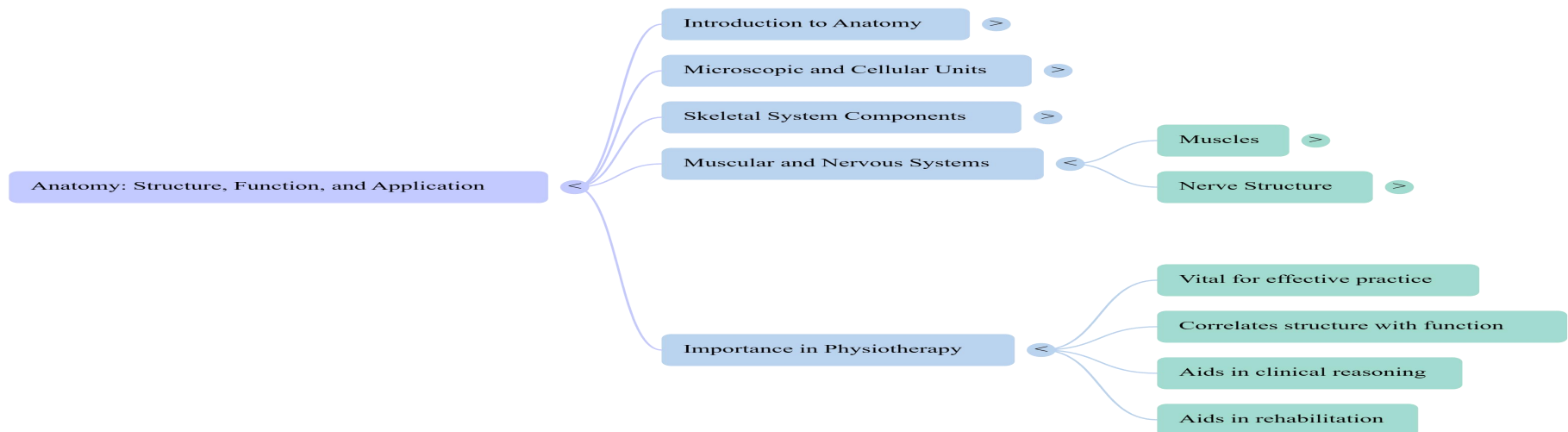


Types of neuron



Summary and Importance in Physiotherapy

- Understanding anatomy is vital for effective physiotherapy practice.
- Correlates structure with function and movement.
- Aids in clinical reasoning and rehabilitation.



In class assessment

Type	Question	Marks
MCQ	The plane dividing the body into anterior and posterior parts is called? (Answer: Coronal plane)	1
Short Answer	Define a synovial joint and list its components.	3
Diagram	Label the parts of a typical long bone.	5
Case-Based	Explain how knowledge of muscle levers aids physiotherapy treatment planning.	5

Thank you???

References:

- B.D. Chaurassia
- Gross anatomy