

# Anatomy

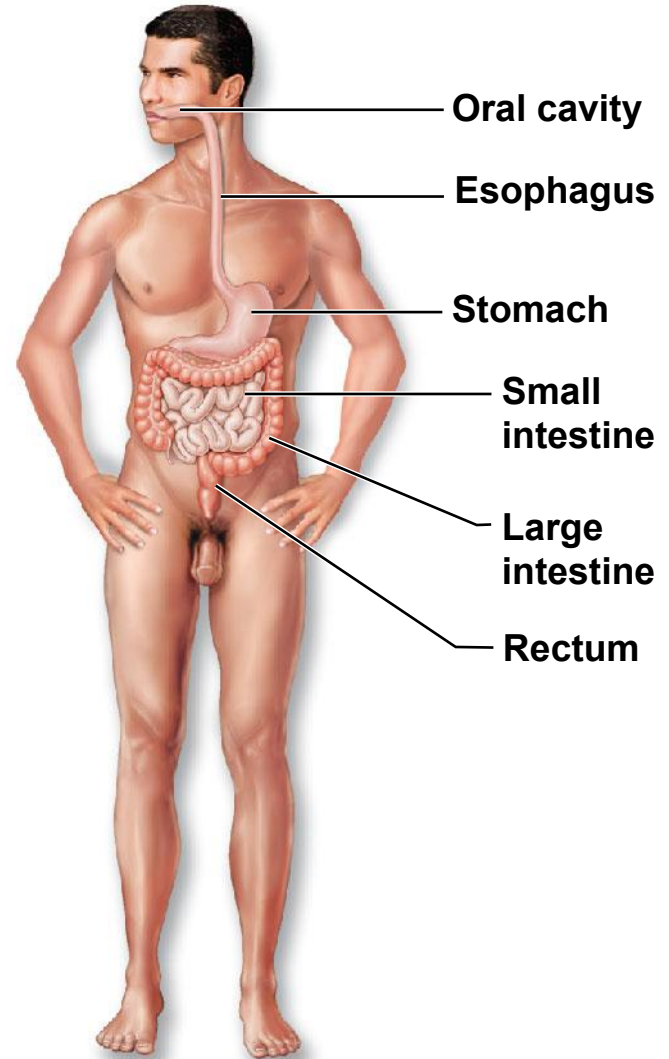
- Anatomy
  - **Study of the structure and shape of the body and its parts**
  - Observation is used to see sizes and relationships of parts

# Types of Anatomy

- **Gross anatomy**

- Large structures
- Easily observable

- Let's look at an example of gross anatomy using the digestive system organs



## **(i) Digestive System**

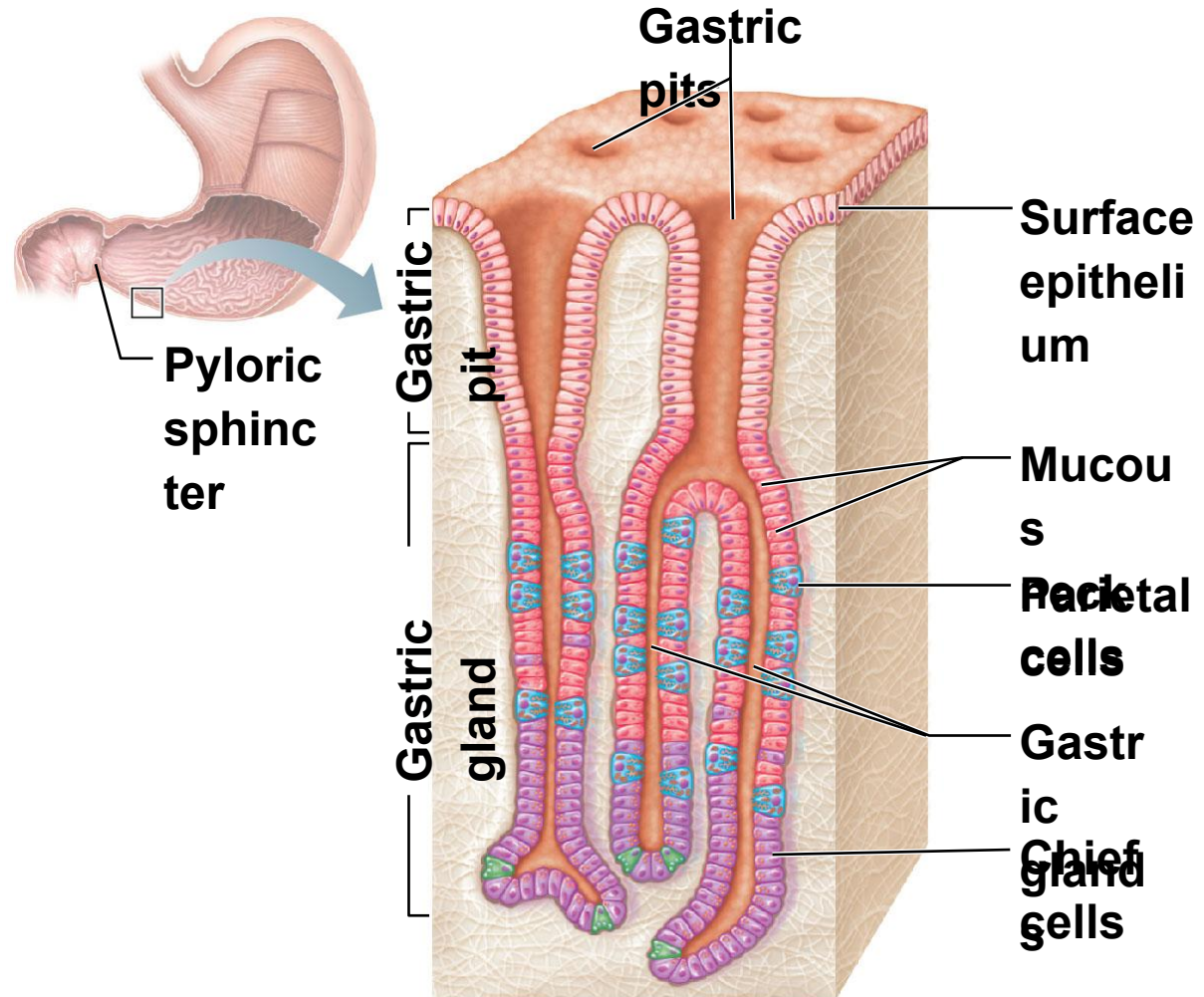
**Breaks food down into absorbable nutrients that enter the blood for distribution to body cells; indigestible foodstuffs are eliminated as feces.**

# Types of Anatomy

- **Microscopic anatomy**

- Structures are too small to be seen with the naked eye
- Cells and tissues can be viewed only with a microscope

- Let's look at an example of microscopic anatomy using a digestive system organ, the stomach



# Physiology

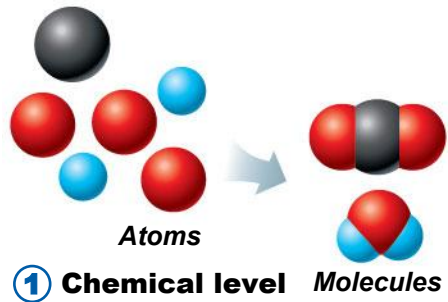
- Physiology
  - **Study of how the body and its parts work or function**

# Relationship Between Anatomy and Physiology

- **Structure** determines what **functions** can occur
  - For example, the air sacs of the lungs have very thin walls, a feature that enables them to exchange gases and provide oxygen to the body

# Levels of Structural Organization

- Six levels of structural organization
  1. **Atoms**
  2. **Cells**
  3. **Tissues**
  4. **Organs**
  5. **Organ systems**
  6. **Organisms**



**① Chemical level**  
Atoms combine to  
form molecules.

*Molecules*



Figure 1.1 Levels of structural organization.

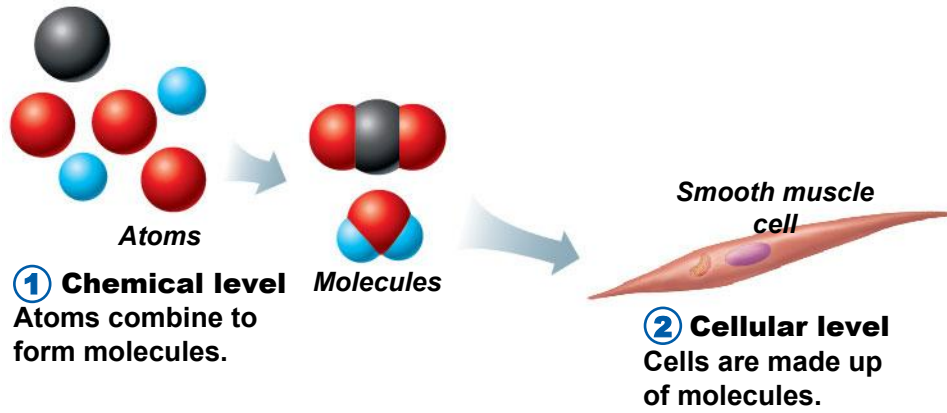


Figure 1.1 Levels of structural organization.

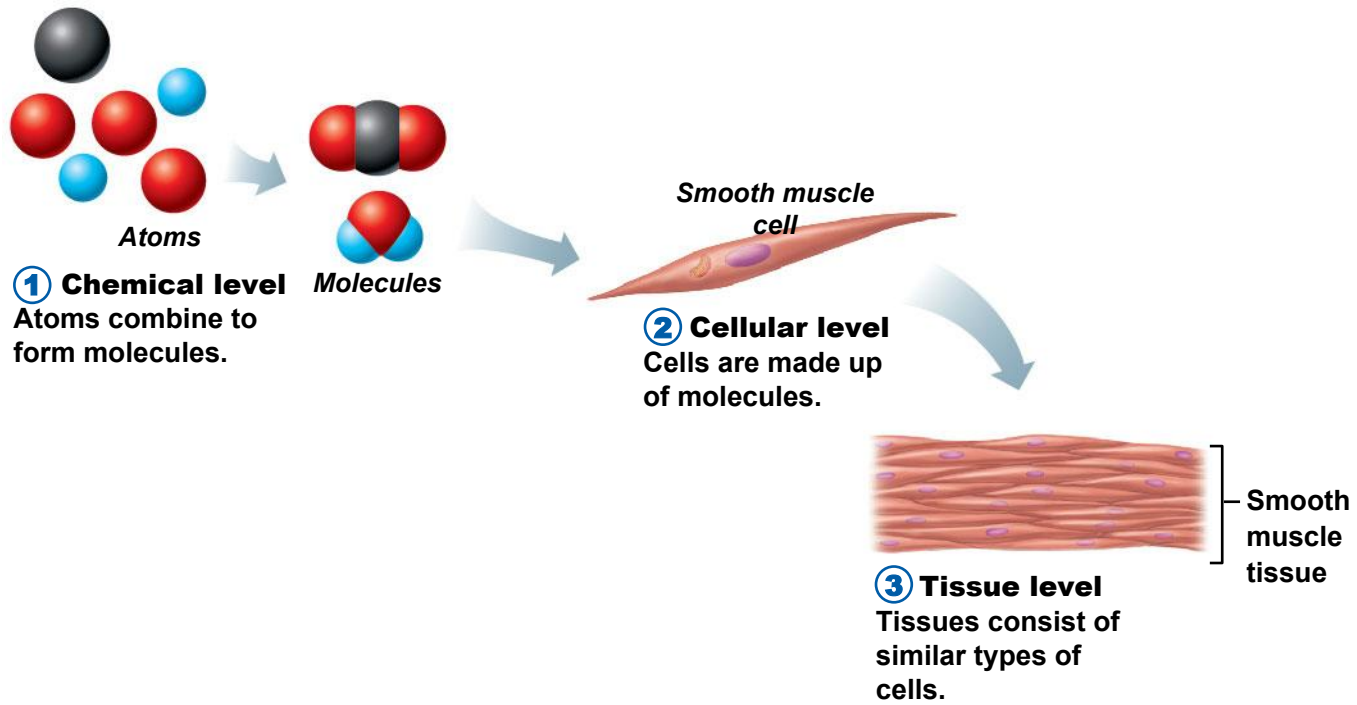


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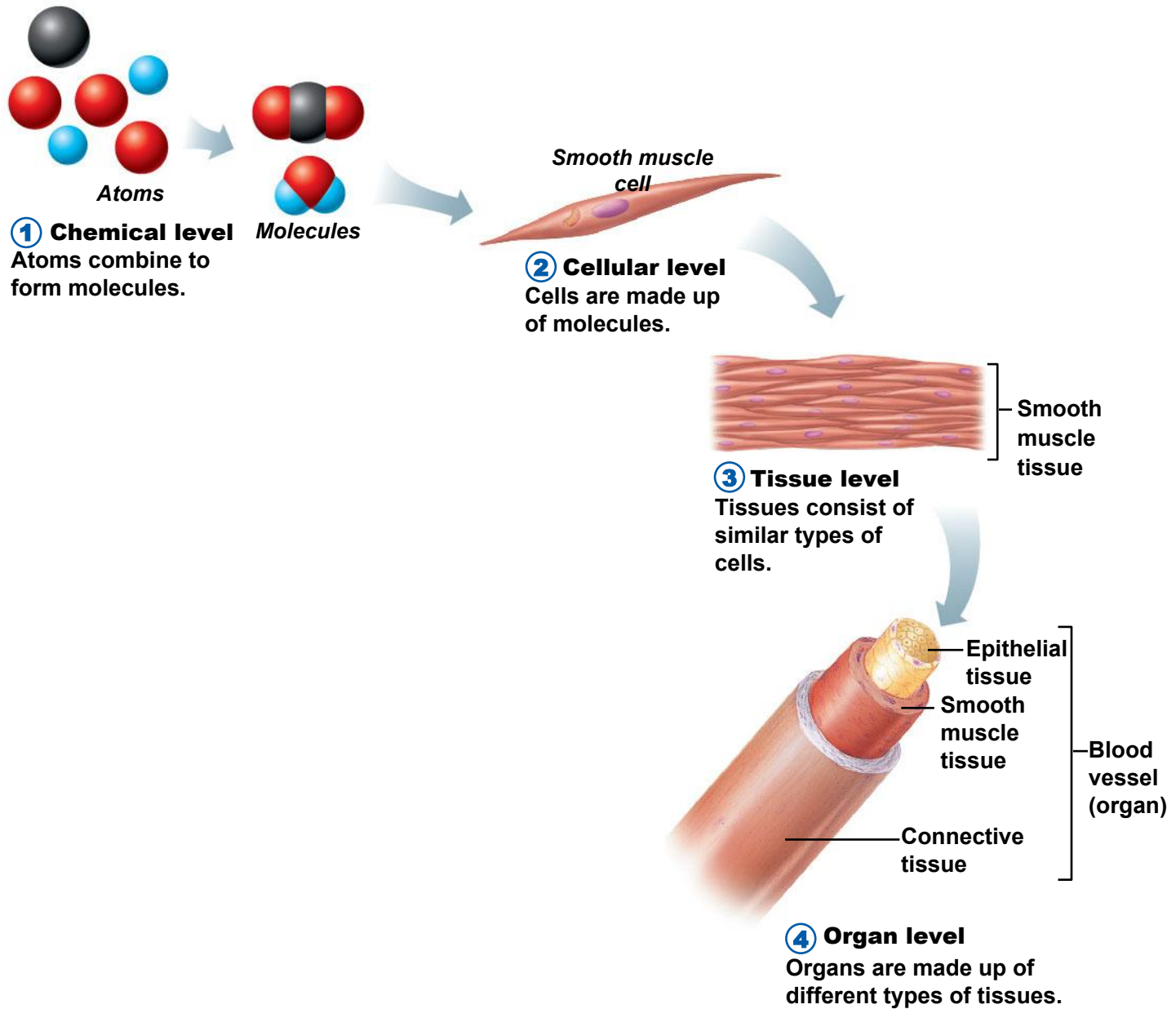


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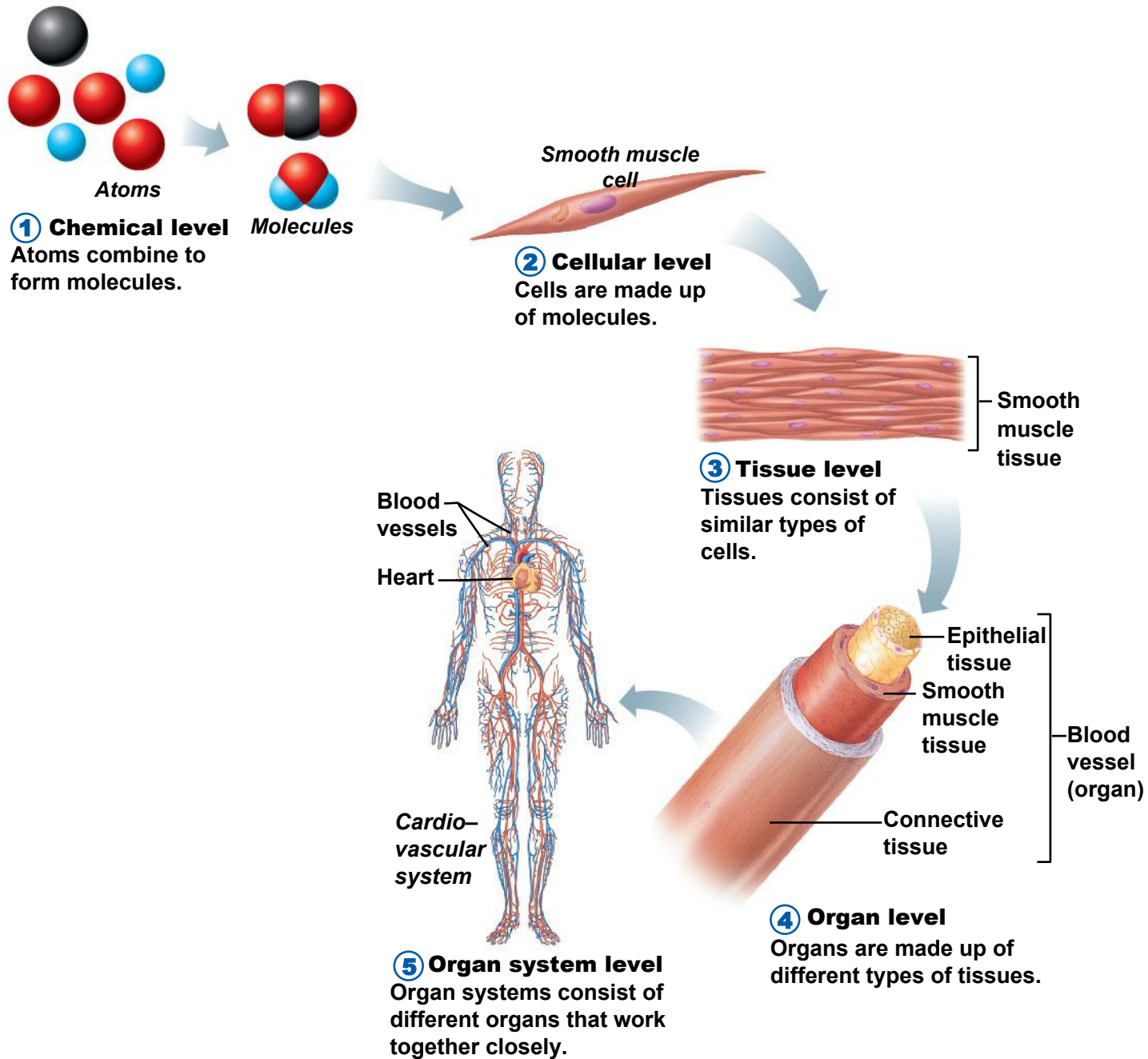


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