

## Lab 5: Skeletal and Muscular Systems

### LABORATORY OBJECTIVES

- Identify a male versus a female skeleton
- Identify the bones that make up the human body
- To investigate articulations and synovial joint movement
- To investigate muscles and bones working together-using dissection of a chicken wing
- muscle fatigue



### INTRODUCTION:

Our skeletal and muscular systems work together to support our bodies and allow us to move in the various ways we do. The skeletal system also does other important things for our bodies; it protects our soft body parts, produces blood cells, and stores minerals and fats.

Our muscular system also has other functions; it helps maintain internal body temperature and assists with movement of fluid in our veins and lymphatic vessels - it also protects the organs of the abdominal region, and stabilizes joints.

### ACTIVITY 1: Is the skeleton male or female?

#### MATERIALS

- Sammy the skeleton (Sammy could stand for Samuel or Samantha!)

#### METHODS

**"The pelvis tells the story"**<sup>1</sup>: Distinct features adapted for childbearing distinguish adult females from males. Other bones and the skull also have features that can indicate sex, though less reliably. In young children, these sex-related features are less obvious and more difficult to interpret. Subtle sex differences are detectable in younger skeletons, but they become more defined following puberty and sexual maturation."

The differences:

#### Female pelvic bones

- Broader sciatic notch
- Raised auricular surface

#### Male pelvic bones

- Narrower sciatic notch
- flat auricular surface

<sup>1</sup> From Smithsonian Institute: [http://anthropology.si.edu/writteninbone/come/activity/pdf/skeleton\\_male\\_or\\_female.pdf](http://anthropology.si.edu/writteninbone/come/activity/pdf/skeleton_male_or_female.pdf)

# Skeletal And Muscular Systems Lab Manual

**SJ Ball**



## **Skeletal And Muscular Systems Lab Manual:**

Skeletal and Muscular Systems Deloris Johnson, 1997-12-01

**Part - Anatomy & Physiology Laboratory Manual -**

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help you demonstrate your understanding of the labs you have participated in They also allow instructors to efficiently check student progress or assign grades Learning objectives presented at the beginning of each exercise offer a straightforward framework for learning Content and concept review questions throughout the manual provide tools for you to reinforce and apply knowledge of anatomy and function Complete lists of materials for each exercise give you and your instructor a thorough checklist for planning and setting up laboratory activities allowing for easy and efficient preparation Modern anatomical imaging techniques such as computed tomography CT magnetic resonance imaging MRI and ultrasonography are introduced where appropriate to give future health professionals a taste for and awareness of how new technologies are changing and shaping health care Boxed hints throughout provide you with special tips on handling specimens using equipment and managing lab activities Evolve site includes activities and features for students as well as resources for instructors

Anatomy and Physiology, Laboratory Manual Connie Allen, Valerie Harper, 2016-12-28 The Allen Laboratory Manual for Anatomy and Physiology 6th Edition contains dynamic and applied activities and experiments that help students both visualize anatomical structures and understand complex physiological topics Lab exercises are designed in a way that requires students to first apply information they learned and then critically evaluate it With many different format options available and powerful digital resources it s easy to customize this laboratory manual to best fit your course

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