

# Anatomy & Physiology

## QuickStart Guide

### *Health and Science Pipeline Initiative*

The HASPI Medical Anatomy & Physiology resources are extensive, and implementing all of the labs at once can be overwhelming. This QuickStart guide has been provided to assist you in choosing HASPI Medical Anatomy & Physiology labs or activities that are easy to implement. Common lab materials (beakers, graduated cylinders, scissors, tape, etc.) have been excluded from the cost. In addition, the supplies can be purchased at local stores and cost less than \$10 for a single class. All student lab handouts are available on the Medical Anatomy & Physiology curriculum page at [www.haspi.org](http://www.haspi.org).

#### 01a. Using Anatomical Language

<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

#### 01b. Anatomical Language Activity

<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Anatomical Position Sticker Sheets	Office Store	10	\$10.00
<b>Total Cost:</b>			<b>\$10.00</b>

#### 01c. Medical Terminology Basics

<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Prefix Cards (cardstock)	<a href="http://www.haspi.org">www.haspi.org</a>	10	Cost of copies
Suffix Cards (cardstock)		10	
Root Cards (cardstock)		10	
Medical Dictionary (online)	-	10	0
<b>Total Cost:</b>			<b>\$0</b>

<b>01d. Body System Poster</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Butcher Paper	Office Store	1 roll	\$10.00
<b>Total Cost:</b>			<b>\$10.00</b>

<b>02b. Autopsy Procedure</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
The Autopsy Files DVD	Amazon	1	\$6.40
<b>Total Cost:</b>			<b>\$6.40</b>

<b>03a. Cell Tonicity</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Salt	Grocery	1 box	\$2.00
Potatoes	Grocery	1	\$1.00
Weighing boats (use filter paper or plastic cup)	-	10	-
Rulers	-	10	-
Balance scale	-	1-10	-
Knife/scalpel	-	1	-
Beakers/cups	-	30	-
<b>Total Cost:</b>			<b>\$3.00</b>

<b>04a Epithelial Tissues</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Epithelial Tissue Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
<b>Total Cost:</b>			<b>\$0</b>

<b>04b Connective Tissues</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Connective Tissue Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
<b>Total Cost:</b>			<b>\$0</b>

<b>04a Muscle and Nervous Tissues</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Muscle and Nervous Tissue Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
<b>Total Cost:</b>			<b>\$0</b>

<b>05 Cancer and Chemotherapy</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Chemotherapy solution (2% salt water)	Grocery	100 ml	\$2.00
3% Hydrogen peroxide	Grocery	1 bottle	\$4.00
Balloons	Convenience	30	\$2.00
Liver	Grocery	1	\$2.00
Spot plates or petri dishes	-	10	-
Plastic pipettes or droppers	-	40	-
Test tubes	-	10	-
Test tube rack	-	10	-
Graduated cylinders	-	10	-
Timer	-	10	-
<b>Total Cost:</b>			<b>\$10.00</b>

<b>06 Cytotoxicity</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Salt	Grocery	100 g	\$2.00
Blackworms	Aquarium supply	50 +	\$1.50
Weighing boat, filter paper, or petri dish	-	10	-
Plastic pipettes or droppers	-	10	-
Spoons	-	10	-
Water	-	As needed	-
Beakers	-	10	-
Graduated cylinders	-	10	-
Timer	-	10	-
Balance scale	-	1-10	-
Paper towels	-	As needed	-
<b>Total Cost:</b>			<b>\$3.50</b>

<b>08a Skeletal System</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Skeletal System charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Tape measure	-	6	-
Rope (at least 24")	-	1	-
Plastic grocery bags	-	10	-
Tape	-	As needed	-
Textbooks	-	As needed	-
Balance scale	-	1	-
Paper	-	As needed	-
<b>Total Cost:</b>			<b>\$0</b>

<b>08b Calcium and Osteoporosis</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Vinegar	Grocery	1 bottle	\$2.50
Bleach	Grocery	1 bottle	\$2.50
Chicken thigh bones	Grocery	20	\$5.00
Weighing boats, petri dishes, or cups	-	10	-
Beakers/cups	-	20	-
Balance scale	-	1-10	-
Paper towels	-	As needed	-
<b>Total Cost:</b>			<b>\$10.00</b>

<b>08d Identifying X-rays</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
X-ray Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
<b>Total Cost:</b>			<b>\$0</b>

<b>09a Muscular System</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Clothespins	Convenience	10	\$5.00
Muscular System charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Tape measure	-	3	-
Timer (phone)	-	10	-
<b>Total Cost:</b>			<b>\$0</b>

<b>11a Nervous System</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Nervous System Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Station images and cards	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Betadine	Pharmacy	1 bottle	\$4.00
Corn starch	Grocery	1 box	\$1.50
Mineral oil	Grocery	1 bottle	\$1.50
Cotton balls	Pharmacy	20	\$1.50
Pipe cleaners or skewer	Craft	5	\$1.00
Straws (free from fast food restaurant)	Grocery	5	-
Paper towels	-	As needed	-
Soap	-	As needed	-
Timer (phone)	-	As needed	-
<b>Total Cost:</b>			<b>\$9.50</b>

<b>12a. Endocrine Game</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Game Boards	<a href="http://www.haspi.org">www.haspi.org</a>	10	Cost of copies
Game cards (color cardstock, 5 pages per group)	<a href="http://www.haspi.org">www.haspi.org</a>	10 sets of cards	Cost of copies
Dice	Convenience	10	\$5.00
Game Pieces (students can use any small item, or reuse other board game pieces)	-	40	-
<b>Total Cost:</b>			<b>\$5.00</b>

<b>12b. The Stress Response</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Clothespins	Convenience	10	\$5.00
Sphygmomanometers (blood pressure cuffs)	-	10	-
Timer (phone)	-	10	-
Ice water (one tub)	-	As needed	-
<b>Total Cost:</b>			<b>\$5.00</b>

<b>12c. Hormones and Body Temperature Regulation</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Oral thermometers (have students use their own)	-	40	-
<b>Total Cost:</b>			<b>\$0</b>

<b>13a. Cardiovascular System</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Cardiovascular System Charts	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Sphygmomanometers (blood pressure cuffs)	-	3	-
Stethoscopes	-	3	-
Rulers	-	10	-
Timer (phone)	-	As needed	-
<b>Total Cost:</b>			<b>\$0</b>

<b>13b. CBC Count</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

<b>13c. ECG</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

<b>14b. Respiratory Distress</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Large straws (Boba)	Grocery	10	\$2.50
Regular straws	Grocery	10	\$2.50
Small straws (stirrer)	Grocery	10	\$2.50
<b>Total Cost:</b>			<b>\$7.50</b>

<b>14c. Air Quality</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Petroleum jelly	Convenience	1 jar	\$4.50
Cotton swabs	Convenience	10	\$2.50
Petri dishes (cut bottom from clear plastic cup if no petri dishes are available)	-	10	-
Dissecting microscopes or magnifying glass	-	10	-
Paper towels	-	As needed	-
<b>Total Cost:</b>			<b>\$7.00</b>

<b>15c. What's in Your Food</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Ziploc bags	Grocery	40	\$2.50
Lard	Grocery	1 box	\$1.00
Sugar	Grocery	1 lb	\$2.00
Salt	Grocery	1 box	\$2.00
Beans	Grocery	1 bag	\$2.50
Weighing boats or cups	-	As needed	-
Spoons	-	As needed	-
Balance scale	-	1-10	-
<b>Total Cost:</b>			<b>\$10.00</b>

<b>16a. Fertility</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

<b>16c. Fetal Development</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

<b>17a. Global Health Investigation</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>

<b>17b. Epidemiology</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
Disease cards	<a href="http://www.haspi.org">www.haspi.org</a>	1-2 sets	Cost of copies
Face masks	Pharmacy	20	\$3.00
Gloves	Pharmacy	20 pairs	\$3.00
Tongue depressors (popsicle or craft sticks)	Craft	20	\$1.50
Alcohol swabs	Pharmacy	20	\$2.00
Thermometers (use students own, or skip this part of the activity if they are unavailable)	-	10	-
Paper towels	-	As needed	-
<b>Total Cost:</b>			<b>\$9.50</b>

<b>18. Medical Case Studies</b>			
<i>Supply</i>	<i>Purchase from:</i>	<i>Quantity</i>	<i>Approximate Cost</i>
No supplies needed	-	-	-
<b>Total Cost:</b>			<b>\$0</b>