

PROJECT 16 EXAMINATION BY PERCUSSION

Perform a simple examination of the chest and abdomen by percussion.

INFORMATION

NOTE: Successful completion of Project 15 is essential before starting with Project 16.

Percussion is usually performed over body cavities. The chest and the abdomen are body cavities. Some regions within these cavities may be filled mainly with gas such as a healthy lung.

Other areas may contain mainly fluid like the urinary bladder (when it is full), and other areas may be occupied by solid tissue such as the liver, producing different sounds when percussion is performed over these regions.

SETTING:

A well-lit room, preferably close to the computer.

CLOTHING:

Thin clothing, for example a t-shirt.

Ideally, exposure of the chest and abdominal areas is required.

REQUIREMENTS:

- A pair of clean gloves
- Skin marker pen
- A regular pen or pencil

STEP 1

Study Diagram 1 showing a body map with recommended areas for performing percussion over the front of the chest and abdomen. Make spot markings in equivalent areas on your own body (you may need some help from another person) or on a test subject's body with the surgical marker

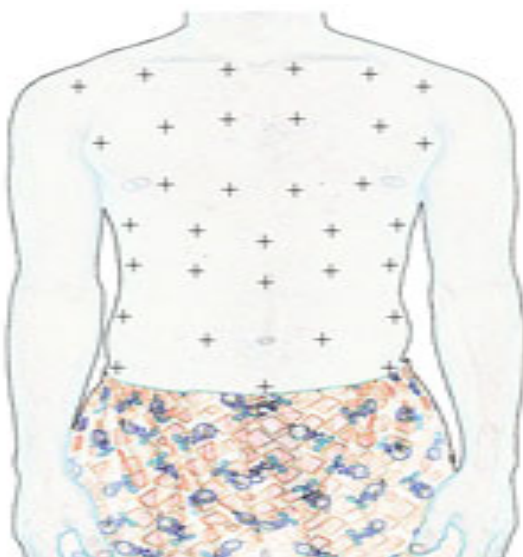


Diagram 1

PERCUSSION MAP OF THE TORSO

H= Hollow Sounds
S= Solid Sounds

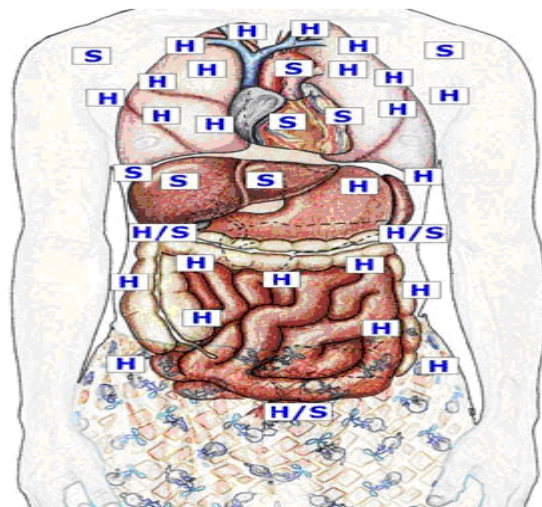


Diagram 2

STEP 2

- Examine your own body by percussing the previously marked areas as indicated on the diagram.
- Perform percussion, taking your time, while listening carefully to the sounds produced. Work systematically – start at the top left side and work towards the right side while progressing downwards.
- Use a pen or pencil to indicate the character of the sound produced when percussing the different areas over the chest and abdomen.

Use the pictures of the model marked "Project 16" for this purpose. Write an "H" at all the markings producing a hollow sound and an "S" at all the markings producing a solid sound.



STEP 3

Study Diagram 2, showing the normal percussion map of the human body in relation to the internal organs.

Compare the percussion map made during your examination with this map.

- Can you identify the position of some of the internal organs on yourself or the person being examined?
- Did you perceive a difference in the quality of the hollow sound produced over the lungs compared to the hollow sound produced over the intestines?

STEP 4

Use the technique of medical percussion to examine the chest and abdomen of another person (repeat Steps 1-3).

PLEASE NOTE:

- Always wash your hands and put on a new pair of gloves each time you examine a different person.
- You are probably examining a perfectly healthy body. A variety of abnormalities and diseases may produce abnormal percussion maps.
- Do not perform percussion on the biology teacher's cranial cavity – you may hear a disturbingly hollow sound!

POINTS OF INTEREST

- In the chest cavity, percussion will produce a solid sound over the heart and large blood vessels, and a hollow sound over the lungs.
- Percussion over the abdominal cavity will produce a hollow sound except over the liver in the right upper quadrant, the spleen (only if enlarged) towards the side of the left upper quadrant, and the over-full bladder in the mid-lower quadrants. In these regions a solid sound will be produced.
- The hollow sound produced by percussion over the abdominal cavity has a special character called "tympanic."
- Reverberation and resonance are mainly responsible for the quality of sound produced when percussion is performed over the body cavities.

