

Physical examination

Medical examination is normally carried out in four stages: **inspection** (looking), **palpation** (feeling with the hands), **percussion** (tapping with a finger) and **auscultation** (listening with a stethoscope).

Note: The verb is **palpate**; the noun is **palpation** (not **palpitation**).

Examining the heart and circulation

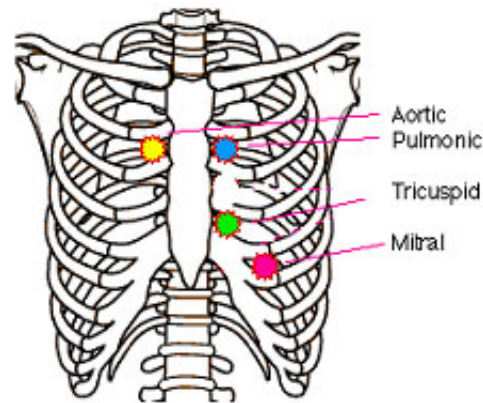
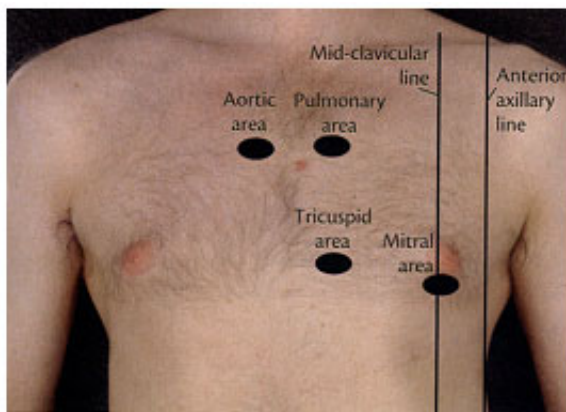
How to examine the cardiovascular system:

Look at the lips, tongue and nails for the blue discoloration of **cyanosis**. Cyanosis may be **central** or **peripheral**. **Inspect** the hands for **clubbing**. Feel the **radial pulse** at the wrist and note the **rate** (for example 70/min) and **rhythm** (**regular** or **irregular**). The pulse may be **irregular in force** as well as **time**. Check that the other **peripheral pulses** are **present**. Measure the blood pressure, and assess the **jugular venous pressure (JVP)**. **Palpate** the chest for the **apex beat** – the normal position is the **fifth left intercostal space**, one centimetre medial to the **midclavicular line**. Feel for any **thrills**. Heart size may be measured by percussion. Listen for **murmurs** and other abnormal sounds, for example **friction rubs**, beginning at the **mitral area**. Murmurs may be **soft** or **loud**. A **harsh** murmur is loud and rough.

Note the time of any murmur in relation to the cardiac cycle. The most common murmurs are:

- mid-systolic (in the middle of systole)
- pan-systolic (lasting for the whole of systole)
- early diastolic
- mid-diastolic
- late diastolic (pre-systolic)

Continue by listening at the tricuspid, aortic and pulmonary areas.



The circles indicate the position for auscultation for cardiac murmurs indicating **valvular heart disease**.

Complete the table with words from the above text.

Verb	Noun
auscultate	
examine	
inspect	

palpate	
percuss	

Put the steps for examining the heart and circulation in order, according to the four –stage system.

- a Measure the heart size.
- b Are there any murmurs?
- c Feel the radial pulse.
- d Look for clubbing.
- e Locate the apex beat.
- f Note any thrills.

A doctor is presenting the case of a 43-year-old woman at a meeting in the Cardiology Department. Complete the text of her presentation.

On examination she was pyrexial with a temperature of 38.5. She was short of breath. Her pulse was variable between 100 and 180 and was irregular in time and (1)_____. Her blood pressure was 130/80 and her JVP was up 5 centimetres showing normal movement with respiration. Her peripheral (2) _____ were all present and there was no (3)_____ or (4) _____ cyanosis. Her apex (5) _____ was displaced to the anterior axillary line but still in the fifth intercostal (6) _____. Her heart sounds were very interesting. When she was initially examined it was noted that she had pan-systolic and mid-diastolic (7) _____, heard best at the apex. When she was examined some hours later, there was a harsh pericardial friction (8) _____ all over the precordium. Our diagnosis at that time was of mitral stenosis and incompetence with a recent onset of pericarditis and atrial fibrillation.

Express your idea.

How many signs of heart disease can you find in the above text? Can you add any signs of heart disease to the list?