

## Cardiac and Circulation Assessment

The cardiac assessment is done by inspecting the general appearance of the patient. Inspect the chest, note the location of the apical impulse percuss the chest wall, auscultate heart sounds S1, S2, and adventitious sounds, such as S3 and S4. Auscultate for pericardial friction rub and murmurs. For the vascular system assessment, start with assessing the skin, fingernails and toenails. Check the carotid artery and jugular veins. Palpate skin for temperature, texture and turgor. Check capillary refill time, which should be no more than 3 seconds. Finally, palpate arterial pulses bilaterally.



PLAY PICMONIC

### HEART ASSESSMENT

#### Inspect General Appearance

##### General

Start the assessment with making general observations of the patient. Inspect skin color, lesions, scars, edema and clubbing. Inspect fingernails and toenails for abnormalities. Notice any labored breathing, general fatigue, mood and mental status of the patient.

#### Inspect Chest

##### Chest

Observe for pulsations, symmetry of movement, retractions and heaves.

#### Note Location of Apical Impulse

##### Note of Location of Ape Heart-timer

Find the location of the apical impulse, which is usually the point of max impulse and should be located in the fifth intercostal space either at or just medial to the left of the midclavicular line. This gives an indication of how well the left ventricle is working, as it corresponds to the apex of the heart.

#### Percuss Chest Wall

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Percussing the chest wall will help you locate cardiac borders. Start by percussing the anterior axillary line and continue toward the sternum along the fifth intercostal space. The sound changes from resonance to dullness over the left border of the heart, and the right border of the heart is usually aligned with the sternum and cant be percussed.

#### Auscultate Heart Sounds: S1, S2, S3, S4

##### Stethoscope Heart Sounds 1,2,3,4

The points of auscultation are over the four cardiac valves and at Erb's point, the third intercostal space at the left sternal border. The bell will be used to hear low-pitched sounds, while the diaphragm will be used to hear high-pitched sounds. Then, you'll auscultate the heart sounds while the patient is in three different positions; lying on their back with the head of the bed raised 30 to 45 degrees, sitting up, and lying on their left side. Use the diaphragm as you go in a zig-zag pattern over the precordium, and use the bell as you come back in the other direction. Note the heart rate and rhythm, identifying S1 and S2, then listening for adventitious sounds, such as S3 and S4, murmurs and rubs.

## Auscultate for Pericardial Friction Rub and Murmurs

### [Stethoscope for Pear-heart being Rubbed and Merman](#)

Murmurs occur when structural defects in the heart's chambers or valves possibly cause turbulent blood flow. Murmurs can occur during systole or diastole, and their pitch can range from high to low, with varying intensities. The best way to hear a murmur is with the patient sitting up and leaning forward, or lying on their left side. Murmurs are graded from Grade I (barely audible) to Grade VI (loud enough to be heard before the stethoscope comes into contact with the chest). To listen for a pericardial friction rub, the patient should sit upright, lean forward and exhale. Listening with the diaphragm of the stethoscope over the third intercostal space on the left side of the chest. A pericardial friction rub has a scratchy, rubbing quality.

## VASCULAR SYSTEM ASSESSMENT

### Assess Skin, Fingernails and Toenails

#### [Assess-man Assessing Skin-suit, Fingernails and Toenails](#)

Start the assessment with making general observations of the patient. Inspect skin color, lesions, scars, edema and clubbing. Inspect fingernails and toenails for abnormalities. Cyanosis, pallor or cool skin may indicate decreased cardiac output and poor tissue perfusion.

### Check Carotid Artery and Jugular Vein

#### [Check Carrot Artery-archer and Jug Vein](#)

Inspect the vessels in the neck. The carotid artery should have a brisk, localized pulsation. The internal jugular vein has a softer pulsation. The carotid pulsation does not decrease when the patient is upright, when they inhale, or when you palpate the carotid. However, the internal jugular pulsation changes in response to position, breathing and palpation. Notice of the carotid artery pulsations are weak or bounding. Observing the jugular veins can give you information about blood volume and pressure in the right side of the heart. Assess for jugular vein distention. To check jugular venous pulse, have the patient lie on their back. Elevate the head of the bed to 30 to 45 degrees and turn the patient's head slightly away from you. If the pulsations appear more than 1½ inches (4 cm) above the sternal notch, it indicates elevation in central venous pressure and jugular vein distention.

### Palpate Skin for Temperature, Texture, Turgor

#### [Paw Skin-suit for Thermometer, Texture and Tug](#)

When palpating, assess skin temperature, texture and turgor. Cyanosis, pallor or cool skin may indicate decreased cardiac output and poor tissue perfusion. Fever could indicate increased cardiac output. Swelling (edema) may indicate heart failure or venous insufficiency. Edema is graded on a four-point scale. If your finger leaves a slight imprint, you would record edema as 1+. If your finger leaves a deep imprint and takes longer than usual to return to normal, the edema is recorded as 4+. Right-sided heart failure may cause swelling in the lower legs.

### Check Capillary Refill Time

#### [Caterpillar](#)

Capillary refill is assessed on the nail beds of the fingers and toes. Refill time should be no more than 3 seconds.

### Palpate Arterial Pulses Bilaterally

#### [Paw Artery-archer Heart-timer Bi-ladder](#)

Gently press the pads of index and middle fingers to the arterial pulses, starting at the top of the patient's body at the temporal artery and working your way down; carotid, brachial, radial, femoral, popliteal, posterior tibial, and dorsalis pedis. Palpate for the pulse on each side, comparing pulse volume and symmetry. However, do not palpate both carotid arteries at the same time or press with too much pressure. All pulses should be regular in rhythm and equal in strength. Pulses are graded on a four-point scale; 4+ is bounding, 0 is absent.