

**#MADEEASY**

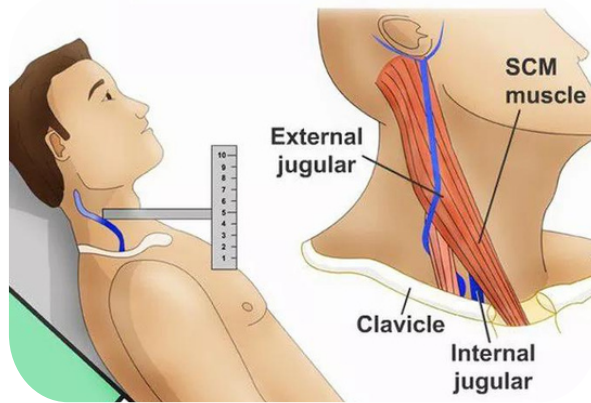


**JUGULAR**  
**VENOUS PULSE**





# How to measure JVP?



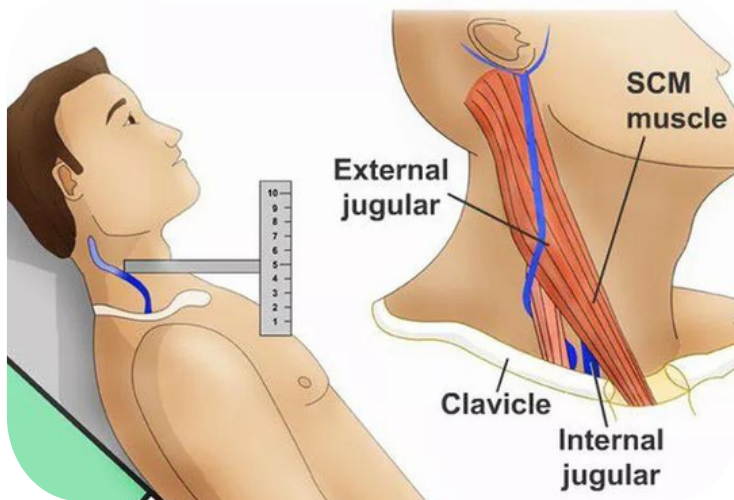
**To measure JVP, we need 2 scales :**

- 1st scale should be placed exactly at the upper level of jugular venous pulsations.
- 2nd scale should be placed exactly perpendicular to the 1st scale and at the junction of 2nd rib to the sternum that is Angle of Louis.
- We are placing 2nd scale at angle of Louis because just 5 cm below the angle of Louis we have center of right atrium.





# How to measure JVP?



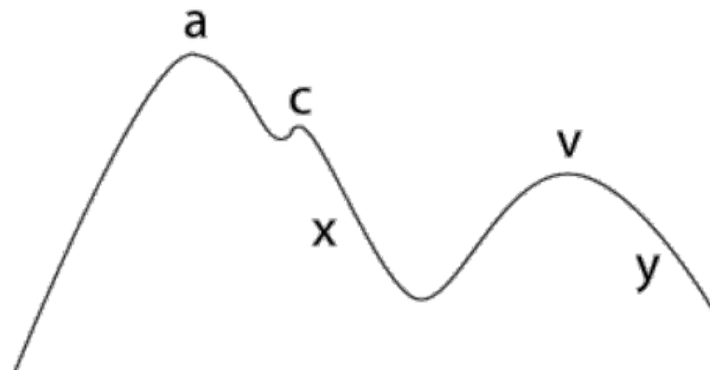
- We have to take the measurement from the bifurcation and add 5 cm to it.
- So roughly it comes around 3 plus 5 which is around 8 cm above the right atrium.



Can you tell me something  
about **JVP Waveforms**?



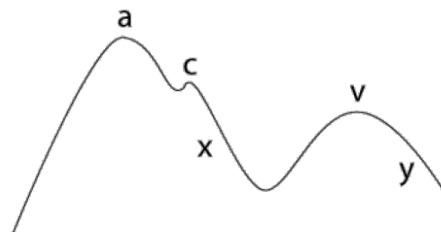
*Understanding the JVP waveforms can aid in diagnosing various cardiovascular conditions. JVP has pulsations that are seen, not felt. Consider it to be like waves in the ocean. These waves always follow the heart's rhythm.*



# Can you tell me something about JVP Waveforms?



- **a wave:** The first positive confident wave that rises upwards representing atrial systole.
- **c wave:** a small ripple in the ocean representing the slight bulge caused by closure of tricuspid valve.
- **x wave:** an immediate descent (directed downwards) representing the atrial relaxation and ventricular systole. Like a sigh of relief as atria relax.
- **v wave:** A strong upward wave representing venous filling of Right atrium against a closed tricuspid valve.
- **y wave:** the second and final descent of the waves. It represents the emptying of atria (diastase).



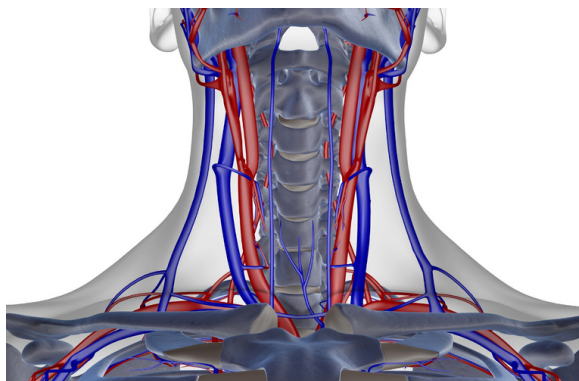


# What are some of the common **Abnormalities?**

- **General:**

Generally, the JVP wave falls on inspiration following the rhythm of the breath. But in Kussmaul sign, it's like a storm hits. The waves (JVP) rise rapidly on inspiration. It is seen when there is an obstruction in the pump (heart):

- **Obstructed Blood Flow - Right Side Congestive Heart Failure**
- **Fibrosis - Restrictive Cardiomyopathy**
- **Calcification - Constrictive Pericarditis**





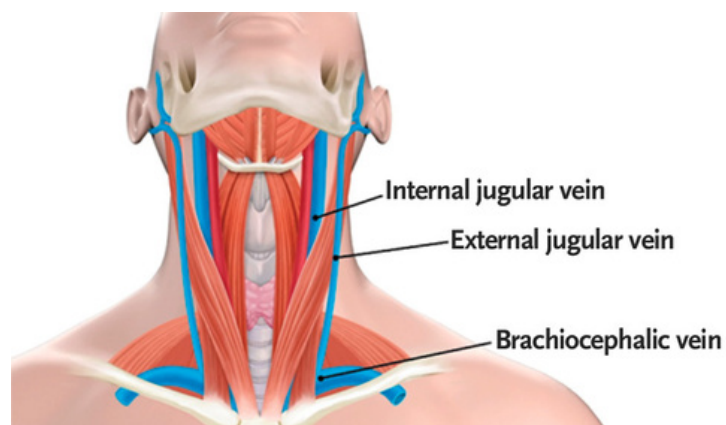


# What are some of the common **Abnormalities?**

- **A Wave**

*It's the first big, thunderous wave and many things can go wrong.*

- **Absent A Wave - Atrial fibrillation**
- **Large a wave - Tricuspid stenosis (small pathway leads to a large resistance and hence, large wave)**
- **Giant/Cannon a wave - Ventricular Tachycardia & 3rd degree heart block (heart beating too fast or too slow leads to a giant problem)**





# What are some of the common **Abnormalities?**

- **Descents:**

- *Absent x wave, steep y: Tricuspid Regurgitation*
- *Absent y wave, steep x: Cardiac Tamponade*
- *Steep x wave, steep y: Constrictive Pericarditis*

