

Characteristic	Significance
Dominant a wave	Pulmonary hypertension, tricuspid and pulmonary stenosis
Canon a wave	Complete heart block, ventricular tachycardia with atrioventricular dissociation
Dominant v wave (common)	Tricuspid regurgitation
Absent x descent	Atrial fibrillation
Exaggerated x descent	Pericardial tamponade, constrictive pericarditis
Sharp y descent	Severe tricuspid regurgitation, constrictive pericarditis
Slow y descent	Tricuspid regurgitation, right atrial myxoma

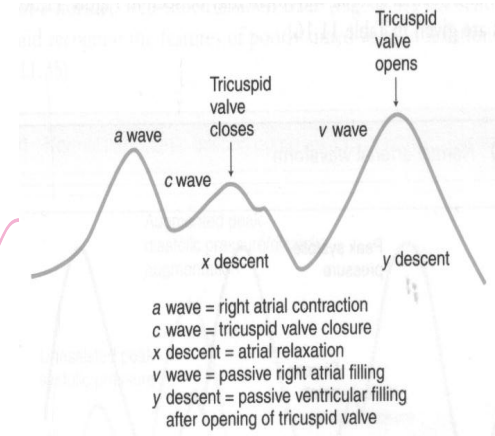
ScvO <sub>2</sub>	Significance
<65%	Impaired tissue oxygenation
65–80%	May indicate optimal tissue oxygenation
>80%	High PaO <sub>2</sub> Cytotoxic dysoxia (e.g. cyanide poisoning, mitochondrial disease, severe sepsis) Microcirculatory shunting (e.g. severe sepsis, liver failure, hyperthyroidism) Left to right shunts

NB: some catheters (eg Edwards PreSep oximetry catheters) are capable of measuring ScvO<sub>2</sub> continuously  
 - ScvO<sub>2</sub> is usually in the order of 4-5% higher than mixed venous (SvO<sub>2</sub>)

CVP waveform analysis

CVP monitoring

normal CVP waveform



interpretation of ScvO<sub>2</sub>

waveforms in various conditions

Condition	Pressure changes	Waveform changes
Tricuspid regurgitation	Increased RA pressure	Prominent v wave, x descent obliterated, y descent steep
Right ventricular infarction	RA and RV pressure elevated. RAP does not fall and may rise in inspiration	Prominent x and y descents
Constrictive pericarditis	RA, RV diastolic, PA diastolic and occlusion pressures elevated and equalized. RAP may rise in inspiration	Prominent x and y descents
Pericardial tamponade	RA, RV diastolic, PA diastolic and occlusion pressures elevated and equalized. RAP usually falls in inspiration	y descent damped or absent

RA: right atrial; RV: right ventricular; RAP: right atrial pressure; PA: pulmonary artery.