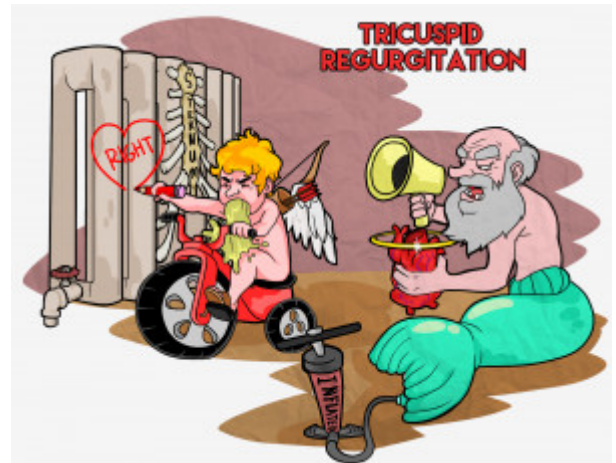


Tricuspid Regurgitation

Tricuspid regurgitation is a valvular heart disease caused by the failure of the tricuspid valve to close properly during systole. The tricuspid valve is found between the right atrium and the right ventricle and normally opens during diastole, allowing blood to flow from the right atrium to the right ventricle. At the end of diastole, the tricuspid valve closes to prevent reversal of blood flow back into the right atrium. Tricuspid regurgitation is characterized by a faulty tricuspid valve that cannot fully close during systole, which allows blood to flow back into the right atrium rather than being pumped forward to the pulmonary arteries. The regurgitant blood flow causes a characteristic holosystolic blowing heart murmur, similar to the one heard in mitral regurgitation. This murmur can be distinguished from mitral regurgitation on a physical exam because it radiates to the right sternal border and is enhanced by inspiration. Tricuspid regurgitation is typically associated with infective endocarditis in IV drug users as intravenous injections can introduce infections which will travel to the right side of the heart.



PLAY PICMONIC

Holosystolic

Halo-heart-squeeze

Tricuspid regurgitation is characterized by a holosystolic murmur that begins from S1 and continues to S2. This murmur is holosystolic because the faulty tricuspid valve allows blood to flow backwards to the right atrium during all of systole.

Blowing Murmur

Blow-horn Merman

This murmur is classically described as having a blowing quality.

Radiates to Right Sternal Border

Writing-right on Sternum Radiator

This murmur can be distinguished from mitral regurgitation on physical exam because it radiates to the right sternal border as opposed to the apex of the heart. Though a right-sided heart defect, tricuspid regurgitation is best auscultated on the lower left sternal border.

Enhanced by Inspiration

Inflation

This murmur can be distinguished from mitral regurgitation, which is also holosystolic, because it increases with inspiration due to an increase in return from the venous circulation to the right heart, resulting in a larger volume of blood that flows back to the right atrium.