

Difference Between Stenosis and Regurgitation

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Key Difference - Stenosis vs Regurgitation

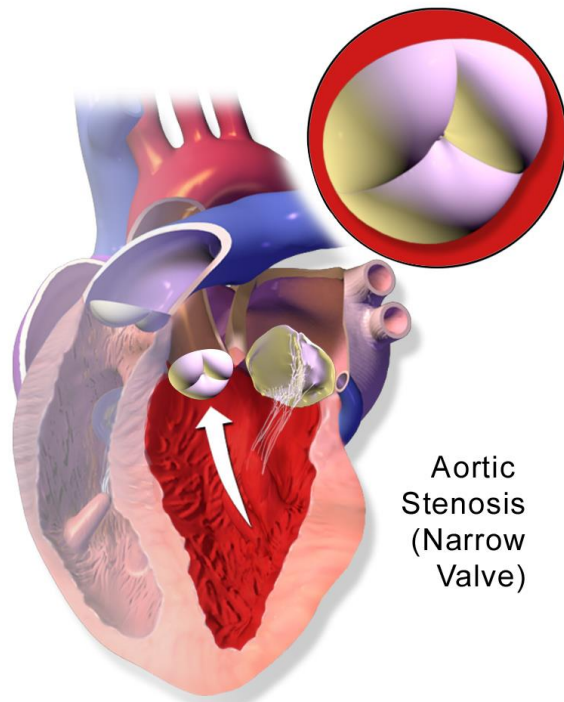
[Medicine](#) has its own set of peculiar words making the study of similar to the study of a new language. Stenosis and regurgitation are two terms that are included in medical jargon that usually give headaches to cardiologists. Stenosis usually refers to a narrowing of a [blood](#) vessel or a bony canal whereas regurgitation can be defined as the act of retrograde movement. So **in a stenosis, there is no change in the direction of movement but in regurgitation the direction of usual motion of whatever the substance is changed due to various pathological causes.** This can be taken as the **key difference** between the two conditions.

What is Stenosis?

Stenosis usually refers to a narrowing of a blood vessel or a bony canal. Different names are given to this process depending on the place that is stenosed. Few of the most important and serious types of stenosis are discussed below.

Aortic Stenosis

In [aortic stenosis](#), there is only a small fibrous opening for the ejection of blood into the aorta from the [left ventricle](#). Consequently, the pressure inside the left ventricle increases exponentially while the pressure inside the aorta remains fairly normal. During the [systole](#), blood is pumped into the aorta through this tiny space at an immense speed forming turbulent currents. Therefore a loud systolic murmur can be heard during the auscultation.



Aortic Stenosis

Figure 01: Aortic Stenosis

Mitral Stenosis

[Mitral valve](#) controls the flow of blood from left [atrium](#) to left ventricle. When there is a narrowing of this opening, it is known as mitral stenosis. But other than in the most severe degree stenosis, a large pressure gradient is not built up between the chambers. Therefore, the heart murmurs produced are difficult to be identified through auscultation. Since the movement of blood between the two chambers happens during diastole, the cardiac murmurs in mitral stenosis are said to be diastolic murmurs.

Spinal Stenosis

In spinal stenosis, the spinal canal through which the spinal cord runs undergoes stenosis. As a result, nerves extending from the [spinal cord](#) are compressed. This is manifested as various neurological deficits. Spinal stenosis can happen anywhere in the spinal canal.

What is Regurgitation?

In medicine, the meaning of the word regurgitation changes with the context that it is being used. With regard to the cardiac valves, regurgitation means their incompetency which results in the leakage of blood through them. In gastroesophageal reflux disease,

food that was [ingested](#) can come out again and be expelled from the mouth. This is also termed as regurgitation. Based on the back flow motion observed in both these occasions regurgitation can be defined as the act of retrograde movement.

Aortic Regurgitation

In aortic regurgitation blood pumped into the aorta flows back into the left ventricle owing to the incompetency of the aortic valve. This produces a diastolic murmur.

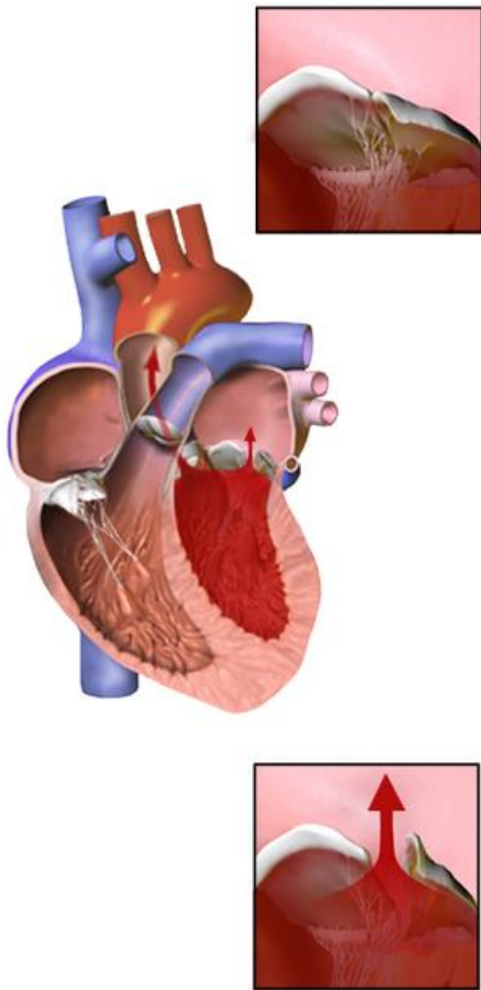


Figure 02: Valvular Regurgitation

Mitral Regurgitation

The incompetency of mitral valve allows the back flow of blood from the left ventricle into the left atrium during cardiac diastole. This gives rise to a systolic murmur.

What is the Difference Between Stenosis and Regurgitation?

Stenosis vs Regurgitation	
Stenosis usually refers to a narrowing of a blood vessel or a bony canal.	Regurgitation can be defined as the act of retrograde movement.

Summary - Stenosis vs Regurgitation

Stenosis usually refers to a narrowing of a blood vessel or a bony canal whereas regurgitation is the backward movement of substances from their original direction of motion inside the body. In regurgitation, there is a change in the direction of motion, but in stenosis, there are no such changes. This is the difference between stenosis and regurgitation.

Reference:

1. Hall, John E., and Arthur C. Guyton. Guyton and Hall textbook of medical physiology. 12th ed. Philadelphia, PA: Elsevier, 2016. Print.

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