What is valve regurgitation?
Regurgitation is the name for leaking heart valves. It can cause the heart to work harder and it may not pump the same amount of blood.

How does valve regurgitation happen?
Regurgitation happens when blood flows back through the valve as the leaflets are closing or when blood leaks through the leaflets when they should be completely closed. This results in the blood flowing in two directions.

Since your heart has four different valves, regurgitation can occur at each valve:

- **Mitral regurgitation** is leakage of blood backward through the mitral valve each time the left ventricle contracts. This causes blood to flow in two directions during contraction.
- **Aortic valve regurgitation** may stem from a congenital heart defect, complications of an infection or other more rare causes. Oxygen-rich blood either flows out through the aorta to the body – as it should – or it flows backwards from the aorta into the left ventricle when the ventricle relaxes.
• **Pulmonary or pulmonic regurgitation** is more rare and is usually a result of other problems like pulmonary hypertension.
• **Tricuspid regurgitation** is more commonly caused by an enlarged lower chamber on the right side of the heart, but it may also develop in response to other valve problems on the left side of the heart that end up straining the entire system.

**Who is likely to have regurgitation?**
Valve regurgitation can come on suddenly or it may develop gradually over decades. There are several factors that can increase your valve regurgitation, including:

• **Valve damage.** Inflammation associated with certain conditions, such as endocarditis or rheumatic fever, can damage your aortic valve.
• **A heart attack.** A heart attack can damage your heart, affecting the function of the mitral valve.
• **Heart disease.** Certain forms of heart disease, such as coronary artery disease, can lead to mitral valve regurgitation.
• **Use of certain medications.** People who take drugs containing ergotamine (Cafergot, Migergot) and similar medicines for migraines and those who took Pergolide (now off the market) or who take Cabergoline have an increased risk of mitral regurgitation.
• **Congenital heart disease.** Some people are born with an abnormal valve prone to regurgitation.
• **High blood pressure (hypertension).** High blood pressure may stretch the root of the aorta where the aortic valve sits. The valve flaps (cusps) may no longer meet, resulting in leakage.
• **Age.** By middle age, many people have some mitral valve regurgitation caused by natural deterioration of the valve.

**Symptoms of regurgitation:**
Regurgitation is often mild and progresses slowly. You may have no symptoms for decades and be unaware that you have this condition, and it might not progress.

Signs and symptoms, which depend on its severity and how quickly the condition develops, can include:

• Blood flowing turbulently through your heart (heart murmur)
• Shortness of breath (dyspnea), especially with exertion or when you lie down
• Fatigue, especially during times of increased activity
• Heart palpitations—sensations of a rapid, fluttering heartbeat
• Swollen feet or ankles

**Complications of regurgitation:**
When it’s mild, valve regurgitation may not cause problems. However, severe
Cardiovascular regurgitation can lead to these complications:

- **Heart failure.** Heart failure results when your heart can’t pump enough blood to meet your body’s needs. Severe mitral valve regurgitation places an extra strain on the heart because, with blood pumping backward, there is less blood going forward with each beat. The left ventricle gets bigger and, if untreated, weakens. This can cause heart failure.

- **Atrial fibrillation.** The stretching and enlargement of your heart’s left atrium may lead to this heart rhythm irregularity in which the upper chambers of your heart beat chaotically and rapidly. Atrial fibrillation can cause blood clots, which can break loose from your heart and travel to other parts of your body, causing serious problems, such as a stroke if a clot blocks a blood vessel in your brain.

- **Pulmonary hypertension.** If you have long-term untreated or improperly treated mitral regurgitation, you can develop a type of high blood pressure that affects the vessels in the lungs (pulmonary hypertension). A leaky mitral valve can increase pressure in the left atrium, which can eventually cause pulmonary hypertension. This can lead to heart failure on the right side of the heart.

- **Infection.** Any heart valve problem puts you at risk of an infection of the heart’s inner lining (endocarditis). If the aortic valve is leaky, it’s more prone to infection than a healthy valve.

### Treatment for regurgitation

Based on the severity of the problem, leaking valves may require surgical repair or replacement. To improve your quality of life, your provider may recommend that you:

- **Control high blood pressure.** Lowering blood pressure reduces the strain on your aortic root. Cutting back on salt helps you maintain your blood pressure within a normal range.

- **Eat a heart-healthy diet.** Food doesn’t directly affect valve regurgitation, but a healthy diet can help prevent other heart disease that can weaken the heart muscle. Eat foods low in saturated and trans fats, sugar, salt and refined grains, such as white bread. Eat a variety of vegetables and fruits, whole grains, and proteins, such as lean meats, fish and nuts.

- **Maintain a healthy weight.** Keep your weight within a range recommended by your provider.

- **Exercise.** How long and hard you’re able to exercise depends on the severity of your condition and the intensity of exercise. Ask your provider for guidance before starting to exercise, especially if you’re considering competitive sports.

### More information

For additional information, please seek further guidance from your primary care provider.
Sources:
