

What is Endocarditis?

What is endocarditis?

Endocarditis is a serious and life-threatening infection. It affects the inner lining of the heart's chambers and valves, called the **endocardium**.

What causes endocarditis?

Endocarditis happens when germs—usually bacteria, but sometimes fungi or other organisms—enter your bloodstream. These germs travel to your heart and attach to damaged areas in the heart. Most cases are caused by bacteria. These bacteria often come from other parts of your body, such as your mouth, skin, or respiratory system (your lungs and airways).

What are the risk factors of endocarditis?

A healthy heart is usually good at fighting off infections. But if your heart tissue is damaged or abnormal, you have a higher risk of getting endocarditis. In these cases, bacteria can stick to the damaged tissue. The bacteria may form clumps called **vegetations** and release enzymes (proteins) that can damage nearby heart tissue.

You have a higher risk of endocarditis if you have:

- Artificial (prosthetic) heart valves.
- Damaged heart valves.
- Certain heart defects.

What are the symptoms of endocarditis?

Endocarditis symptoms can be different for each person. Common symptoms include:

- Joint and muscle aches.
- Chest pain when you breathe
- Feeling very tired (fatigue).
- Flu-like symptoms, such as fever and chills.
- Low-grade fever (a slight increase in your body temperature).
- Night sweats.
- Shortness of breath.
- Swelling in the feet, legs, or belly.
- A new or changed “whooshing” sound in your heart (murmur).

Less common endocarditis symptoms can include:

- Unexplained weight loss.
- Blood in your urine (pee).
- Tenderness under your left rib cage (where your spleen is).
- Painless red, purple, or brown flat spots on the soles of your feet or the palms of your hands (called Janeway lesions).
- Painful red or purple bumps or dark patches of skin on the tips of your fingers or toes (called Osler nodes).
- Tiny purple, red, or brown round spots on your skin, in the whites of your eyes, or inside your mouth (called petechiae).

If you have symptoms of endocarditis, please contact your healthcare provider as soon as possible.

How is endocarditis diagnosed?

If you have symptoms of endocarditis, your healthcare provider will want to find out the cause as soon as possible. Common tests to diagnose endocarditis include:

- **Blood tests:** These can check for signs of infection, including blood cultures, a complete blood count (CBC), and a C-reactive protein test. It is important to tell your healthcare provider about any heart problems you have. They need to take blood cultures before you start antibiotics. Taking antibiotics before drawing blood can make endocarditis harder to diagnose.
- **Imaging tests:** Imaging tests can show vegetations and heart damage. Your provider may order:
 - An echocardiogram (an ultrasound of your heart).
 - A transesophageal echocardiogram (a special ultrasound that looks at your heart from your esophagus).
 - A heart MRI (a scan that uses magnets to create detailed pictures of your heart).

How is endocarditis treated?

Endocarditis needs quick treatment to prevent serious damage to your heart valves and heart tissue. Treatment usually includes medication and possible surgery.

Disclaimer: This document contains information and/or instructional materials developed by University of Michigan (U-M) Health for the typical patient with your condition. It may include links to online content that was not created by U-M Health and for which U-M Health does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition, or your treatment plan.

Author: Erica Warrington, BSN RN
Reviewer: Bethany Lee-Lehner, MSN RN
Edited by: Brittany Batell, MPH MSW CHES®
CVC Control #1616

We value your feedback on our patient education materials!
Visit UMHPatientEd.org/PtEdSurvey or scan the QR code to fill out a short feedback survey.



Patient Education by [U-M Health](https://U-MHealth.org) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License](https://creativecommons.org/licenses/by-nc-sa/4.0/). Last revised 10/2025