

# Bacterial endocarditis



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The cardiovascular system is the system that keeps life pumping through you with its complex pathways of veins, arteries, and capillaries. The heart, blood vessels, and blood help to transport vital nutrients throughout the body as well as remove metabolic waste. They also help to protect the body and regulate body temperature. Bacterial endocarditis is an infection of the inner surface of the heart or the heart valves caused by bacteria usually found in the mouth, intestinal tract or urinary tract. This infection results in a serious illness which requires prolonged treatment and on occasion produces injury to the heart or even death.

Endocarditis is a major concern in almost all unrepaired congenital heart defects as well as in most repaired defects with a few exceptions.

Endocarditis is characterized by a prototypic lesion, the vegetation, which is a mass of platelets, fibrin, microcolonies of microorganisms, and scant inflammatory cells. In the subacute form of infective endocarditis, the vegetation may also include a center of granulomatous tissue (roughly spherical mass of chronic immune cells) which may fibrose or calcify.

Endocarditis can generally be preventable with simple measures.

Endocarditis occurs when bacteria grow on the edges of a heart defect or on the surface of an abnormal valve after the bacteria enter the blood stream, most commonly from dental procedures but also from procedures involving the gastrointestinal or urinary tract. Symptoms and signs of endocarditis vary but a fever more than 2-3 days without an obvious cause is a most important sign and should always be investigated in a child with congenital heart disease. Other signs and symptoms include poor appetite, feeling weak

or tired, joint pains, skin rashes, and changes in the nature of a previously present heart murmur.

The chance that these signs and symptoms are caused by endocarditis is more likely if they occur soon after a dental cleaning or procedure involving the gastrointestinal or urinary tract. Risk factors for bacterial endocarditis may be divided into those associated with high-risk conditions and those from high-risk procedures. Some conditions may include, congenital heart disease, Acquired valve disease, Prosthetic valve, IV drug use, previous episode of bacterial endocarditis, surgical systemic to pulmonary shunts and conduits and central venous catheters.

Some procedures that may be a risk to bacterial endocarditis include dental procedures, respiratory procedures, GI procedures and genitourinary tract. Some treatments for bacterial endocarditis are occasionally therapy with oral antibiotics at home will be successful. Antibiotic therapy usually must continue for at least a month. Most patients respond rapidly to appropriate antibiotics, with over 70 percent of patients becoming afebrile (without a fever) within one week.

In unusual cases, surgery may be necessary to repair or replace a damaged heart valve. To prevent bacterial endocarditis it is recommended to mention it to your physician or dentist if you are at risk of for endocarditis. Those who have any predisposing factors for bacterial endocarditis should be given antibiotics before most medical or dental surgeries and whenever any significant skin infection occurs. People with good oral hygiene, including those who floss daily, may be less likely to develop endocarditis.