What Is Infective Endocarditis?

Infective endocarditis (IE) is an infection of either the heart’s inner lining (endocardium) or the heart valves. Infective endocarditis is a serious — and sometimes fatal — illness.

Risk factors for developing IE include:
• Heart valve disease
• Previous heart valve surgery
• Congenital heart disease
• Intravenous drug use
• Previous history of IE

IE can affect men, women and children of all racial and ethnic groups. In the United States, there are more than 47,000 new cases each year.

What’s the role of bacteria?

Certain bacteria normally live on parts of your body. They live in or on the:
• mouth and upper respiratory system.
• intestinal and urinary tracts.
• skin.

Bacteria can enter the bloodstream. This is called bacteremia. These bacteria can settle on abnormal or damaged heart valves, implanted or prosthetic heart valves, or other damaged heart tissue. If this happens, they can damage or even destroy the heart valves.

The heart valves are important in guiding blood flow through the heart. They work like doors to keep the blood flowing in one direction. If they become damaged, the results can be very serious.

Bacteremia can occur after daily activities such as:
• tooth brushing and flossing.
• use of wooden toothpicks.
• use of water flossers (Waterpik).
• chewing food.

It can also result after certain surgical and dental procedures. However, not all bacteria cause endocarditis.

Who is at risk for IE?

People who have certain heart conditions are at an increased risk of developing infective endocarditis. People with the highest risk for poor outcomes from IE may be prescribed antibiotics prior to certain dental procedures to reduce their risk. This is called IE prophylaxis.

Heart conditions that put people at the highest risk for poor outcomes from IE include:
• artificial (prosthetic) heart valves or heart valves repaired with artificial material
• a previous history of infective endocarditis
• some kinds of congenital heart defects
• abnormality of the heart valves after a heart transplant

People who’ve had IE before are also at higher risk of getting it again. This is true even when they don’t have heart disease.
How can infective endocarditis be prevented?

Not all cases can be prevented. That’s because it’s hard to know when an infection will occur.

For people whose heart conditions put them at the highest risk for poor outcomes from IE, the American Heart Association recommends antibiotics before certain dental procedures. These include procedures that involve manipulation of gingival (gum) tissue or the periapical region (area around the roots) of teeth, or perforation of the oral mucosa. However, for most people, antibiotics are not needed.

The AHA has an infective endocarditis wallet card in English and Spanish. People who have been told that they need to take antibiotics to prevent IE should carry it. You can get it from members of your health care team or on the AHA website, heart.org. Show the card to your dentist or physician. It will help them take the precautions needed to protect your health.

You can reduce the risk of IE by maintaining good oral health through regular professional dental care and the use of dental products such as manual, powered, and ultrasonic toothbrushes; dental floss; and other plaque-removal devices.

Practicing good oral hygiene can help reduce the risk of developing IE. But some people may need to take antibiotics prior to certain dental procedures.

HOW CAN I LEARN MORE?

1 Call 1-800-AHA-USA1 (1-800-242-8721), or visit heart.org to learn more about heart disease and stroke.

2 Sign up to get Heart Insight, a free e-newsletter for heart patients and their families, at HeartInsight.org.

3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at heart.org/SupportNetwork.

Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

- Am I at risk for infective endocarditis?
- Should I take antibiotics before I see the dentist?

We have many other fact sheets to help you make healthier choices to reduce your risk, manage your disease or care for a loved one. Visit heart.org/AnswersByHeart to learn more.