

Injecting drug use and Endocarditis

People who inject drugs, have an increased risk of developing endocarditis. There are two main reasons for this:

- Many drug users do not sterilise their needles properly, which can allow any bacteria that may be present in, or on, the needle to enter the bloodstream.
- Repeated injections can cause skin irritation, making the skin more vulnerable to infection, and increasing the risk that infection will spread from the skin into the blood.
- Lack of or incorrect swabbing and filtering techniques

Treatment

Patients will usually have antibiotic therapy for 4-6 weeks. The antibiotic must be specific for the organism causing the condition. This is determined by the blood culture and the sensitivity tests.

Surgery to replace the heart valve is usually needed when:

- The infection is breaking off in little pieces, resulting in a series of strokes
- The person develops heart failure as a result of damaged heart valves
- There is evidence of organ damage

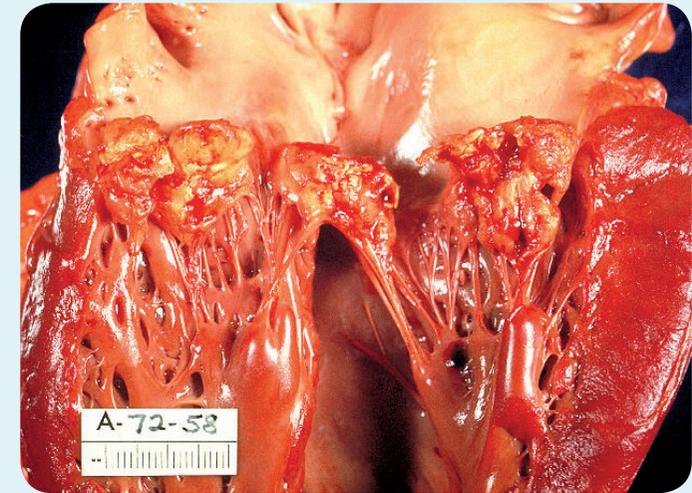
Prevention

The best way to lower the risk of developing endocarditis through injecting is to always swab and filter and to use new equipment every time.

If you are unsure about how to swab and/or filter correctly please ask one of our staff.



ENDOCARDITIS



The reason why you need to **swab** and **filter** every time.

Endocarditis is an inflammation of the inner layer of the heart which usually involves the heart valves and may result in heart failure. It is most commonly caused by bacteria or fungus entering the blood.

What is Endocarditis?

Endocarditis is inflammation of the inside lining of the heart chambers and heart valves (endocardium).

How does it effect the heart?

Due to its important role in your overall health, your heart is usually well protected against infection, and bacteria will usually pass harmlessly by.

However in the case of endocarditis bacteria will begin to multiply and spread across the inner lining of your heart, which is known as the endocardium. The endocardium will become inflamed, causing your heart valves to become damaged. Once they are damaged, the valves may no longer be able to supply the blood that your heart needs to function properly, which can cause heart failure.

Small clumps of bacteria, known as vegetations, may develop in the heart at the site of the infection. There is a risk that these clumps will act in a similar way to blood clots, travelling away from the heart and blocking the blood supply to the organs, which can cause organ failure, or trigger a stroke if they occur in your brain.

Causes, incidence, and risk factors

Most people who develop endocarditis have some abnormality of a heart valve, however there are a number of factors which increase the risk. **These include:**

- Injecting drug use
- Permanent central venous access lines
- Prior valve surgery
- Recent dental surgery
- Teeth and gums in poor condition
- Weakened valves
- A weakened immune system.

Bacterial infection is the most common source of endocarditis. However, it can also be caused by fungi. In some cases, no cause can be identified.

Symptoms

- Abnormal urine color
- Chills (common)
- Excessive sweating (common)
- Fatigue
- Fever (common)
- Joint pain
- Muscle aches and pains
- Night sweats

- Nail abnormalities (splinter hemorrhages under the nails)
- Paleness
- Red, painless skin spots on the palms and soles (Janeway lesions)
- Red, painful nodes in the pads of the fingers and toes (Osler's nodes)
- Shortness of breath with activity
- Swelling of feet, legs, abdomen
- Weakness
- Weight loss

Note: Endocarditis symptoms can develop slowly (subacute) or suddenly (acute).

If you suspect you could have endocarditis or have increase risk factors consult your GP.



Clumps of bacteria known as vegetations which have developed in a human heart with Endocarditis.