



# DON'T IGNORE A SORE THROAT

*Rheumatic heart disease, in which there's permanent damage to the heart, is the after-effect of an untreated, common throat infection. Gillian Warren-Brown looks at how it can be prevented*

**A** sore throat, especially without the usual cold or flu symptoms, is a red flag that should not be ignored. It might be what's commonly referred to as a strep throat, which, if untreated, can eventually lead to rheumatic heart disease.

This is one of the few cardiac diseases that is 100% preventable, says Associate Professor Liesl Zühlke, a paediatric cardiologist at the Red Cross War Memorial Children's Hospital in Cape Town. All it takes is a penicillin injection to treat a throat infection caused by the group A Streptococcus bacteria, which, if left unchecked, can develop into acute rheumatic fever, causing the irreversible damage associated with rheumatic heart disease.

Professor Zühlke says if your child has a sore throat, symptoms to look out for are:

- The infection doesn't clear up within a day or two
- Swollen glands in the neck
- Tonsils show pus

'To be on the safe side, take your child to a clinic or doctor to be treated,' she adds.

## ACUTE RHEUMATIC FEVER

If a strep throat isn't treated and the bacteria are still present, the body's fight-back mechanism kicks in. This autoimmune reaction may occur two to four weeks after the throat infection.

Professor Antoinette Cilliers, the head of paediatric cardiology at Chris Hani Baragwanath Hospital in Johannesburg, explains that antibodies produced to protect your body from the bacteria also attack tissues that have a molecular resemblance to the bacteria – such as the heart, joints and skin and the central nervous system.

This causes symptoms that may include a fever, rapid heartbeat, painful joints, a skin rash that lasts a short time and jerky movements of the limbs. These are the signs of acute rheumatic fever.

Professor Cilliers says children between the ages of 5 and 15 are most at risk – although adults and younger children can sometimes be affected.

She adds, 'It is particularly prevalent in overcrowded, economically deprived communities with poor access to healthcare.'

“As rheumatic heart disease is most often found in disadvantaged communities, surgery isn't always available to everyone who needs it”

## RHEUMATIC HEART DISEASE

Professor Zühlke says once rheumatic fever is diagnosed, long-acting penicillin injections given monthly for five to 10 years – perhaps even lifelong – may be prescribed to control the symptoms and prevent further episodes.

Flare-ups tend to occur and the recurring inflammation causes more damage to the heart, which explains why rheumatic heart disease can sometimes surface 10 to 20 years after the initial infection.

Professor Karen Sliwa, director of the Hatter Institute for Cardiovascular Research in Africa and president-elect of the World Heart Federation, says the only national estimates we have for South Africa come from the 'Heart of Soweto Study': 17/100 000 new presentations of rheumatic heart disease a year in the 20- to 30-year age group.

Professor Zühlke explains that a figure of over 3/100 000 is deemed an epidemic. 'Young people, especially women, are profoundly affected by the disease. One complication, a disturbance of the heart rhythm, is a common cause of stroke in this age group,' she adds.

## MEET OUR EXPERTS



**Associate Professor Liesl Zühlke** is a paediatric cardiologist at Red Cross Children's Hospital and the president of the South African Heart Association.



**Professor Antoinette Cilliers** is head of paediatric cardiology at Chris Hani Baragwanath Hospital. Her work focuses on children with congenital and acquired heart disease.



**Professor Karen Sliwa** is the director of the Hatter Institute for Cardiovascular Research in Africa. One of her main areas of research is cardiovascular disease in pregnancy and postpartum.



**Dr Johan Jordaan**, a cardiothoracic surgeon based at Life Rosepark Hospital, is involved in advanced tissue engineering for cardiac applications.



## PATIENT ALERT

- If you have rheumatic heart disease, go for regular medical check-ups and inform your dentist – bacteria from your mouth or teeth can get into your blood stream and infect damaged heart valves.
- If you're a woman, ask about your risks around pregnancy as the extra strain on your heart may be life-threatening.

She says if rheumatic heart disease is suspected, the diagnosis is made via an ultrasound of the heart (echocardiogram), which can show heart-valve damage.

If there is only mild damage, a healthcare worker may, by chance, detect a heart murmur (symptomatic of rheumatic heart disease) during an examination for another medical problem, says Professor Cilliers. And if the damage is severe, a patient could have signs of heart failure and may need surgery.

## WHEN TO OPERATE

Dr Johan Jordaan, a cardiothoracic surgeon based at Life Rosepark Hospital in Bloemfontein, says damage to the valve between the two left chambers of the heart (mitral valve) is most common, but the other heart valves can be affected.

Surgery is usually needed if:

- There's a leak in the mitral valve, which allows blood to flow the wrong way.
- The valve has become narrowed, decreasing blood flow.

Surgery involves repairing or replacing the damaged valve or valves.

Dr Jordaan says the inflammation that occurs in rheumatic fever may also weaken the heart muscle itself, affecting its ability to pump and thereby raising the risk of heart failure.

Unfortunately, as rheumatic heart disease is most often found in disadvantaged communities, surgery isn't always available to everyone who needs it. 'The danger is that if you wait too long, the extent of damage to the heart may mean that it can't cope with surgery,' says Dr Jordaan.

The best thing is prevention, which can be achieved with a higher level of awareness about the disease and its cause – and taking action to treat a strep throat instead of thinking it'll simply go away. ■