



A SORE THROAT CAN HURT YOUR HEART

Pay close attention to a sore throat. A dangerous disease with devastating effects on the heart could be at work. By Carine Visagie

Most people accept the occasional sore throat as a normal part of life. After all, it's one of those bothersome symptoms that often accompany a harmless cold. But if a sore throat is caused by a specific group of bacteria, heart damage may follow.

Rheumatic fever, the inflammatory disease that may develop after so-called 'strep throat', can cause rheumatic heart disease – a deadly condition that kills more than 1 000 people worldwide every day. In South Africa, it's the leading cause of acquired heart disease in children and young adults, and the sixth highest cause of death due to heart disease. Could you or your child be at risk? Brush up on the facts.

HOW RHEUMATIC FEVER CAN LEAD TO RHEUMATIC HEART DISEASE

A link between a sore throat and heart disease may seem unlikely, but it all comes down to inflammation in the body and an ongoing, damaging immune response.

When a sore throat caused by group A streptococcus bacteria is left untreated, the ongoing inflammation can set off an 'immune cascade' in the body, explains Dr Liesl Zühlke, paediatric cardiologist at the Red Cross War Memorial Children's Hospital in Cape Town. Your antibodies start to repeatedly attack other organs and tissues, and the heart, joints, skin and central nervous system may be affected. This is called acute rheumatic fever (ARF), or simply 'rheumatic

fever', and occurs about one to six weeks after the strep throat infection.

When the heart is affected, you're said to have rheumatic heart disease (RHD) – a chronic condition that causes thickening and scarring of the heart valves, often to such an extent that the valves, which are like doors in the heart, start to leak or can't open. Heart failure, stroke and premature death may follow. Up to 60% of people with rheumatic fever go on to develop rheumatic heart disease.

If you have RHD, you may experience shortness of breath (especially when exercising or lying down), fatigue and/or chest pain. But some people display no obvious symptoms. Interestingly, the condition is often picked up during pregnancy, when the added pressure on the heart makes symptoms more apparent.

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WHO IS MOST AT RISK?

Overcrowding, poverty, undernutrition and lack of access to healthcare all contribute to high rates of rheumatic fever and RHD in developing countries, such as South Africa.

The streptococcus bacteria spreads easily where people live, work and play in close proximity to each other, while poor nutrition impacts immunity, making an exposed person more susceptible to infection. When a sick child, teen or adult isn't treated with antibiotics to clear up the strep infection, rheumatic fever may follow.

Children and teens are most at risk. In developing countries, approximately 20–50 per 100 000 children between the ages of five and 15 contract rheumatic fever. But this doesn't mean that adults, younger children or people living in more affluent communities aren't at risk – anyone can get rheumatic fever.

HOW TO PREVENT RHEUMATIC HEART DISEASE

The first step towards prevention is to always pay close attention to a sore throat. When it's accompanied by a high fever, painful joints and/or a rash, strep throat should be suspected and you should see a doctor. Interestingly, a runny nose is indicative of a viral infection, says Dr Zühlke – a sign that you don't have strep throat.

The next step is to get treatment in the form of antibiotics and to religiously stick to your prescription, which may last up to 10 days. This will help prevent the progression from strep throat to rheumatic fever to RHD. If you already have rheumatic fever, your doctor will most likely prescribe ongoing antibiotic treatment (usually in the form of monthly penicillin injections) to thwart further strep infections and heart damage. If you've had rheumatic fever before, you're at high risk of another attack.

The third step is to spread awareness. According to the Heart and Stroke Foundation of SA, rheumatic fever and rheumatic heart disease remain 'neglected diseases' that don't get enough airtime. As such, very few parents and caregivers know of the connection between a sore throat and heart disease in children, notes Prof Bongani Mayosi from Groote Schuur Hospital and the University of Cape Town. Word of mouth is an important way of spreading the prevention message in communities across South Africa.

HOW IS RHEUMATIC HEART DISEASE TREATED?

If you have severe rheumatic heart disease, you'll most likely require surgical intervention, either in the form of heart-valve repair or heart-valve replacement. However, if you take your prescribed medication and have regular follow-ups, the chances are less likely that this will be required.

Children and teenagers often need repeated valve surgery as they grow older and their bodies change. Unfortunately, the surgery is expensive, risky and not always successful, which is why it's important to act swiftly. If a strep throat is successfully treated, rheumatic fever and rheumatic heart disease are both 100% preventable.

Visit **RHDAction.org** for more information on rheumatic heart disease. ■



RESOURCES

- Rheumatic heart disease fact sheet. World Heart Federation, 2012. Download from: www.world-heart-federation.org/heart-facts/fact-sheets/rheumatic-heart-disease
- New action plan against rheumatic heart disease. The Heart and Stroke Foundation of SA. View on: www.heartfoundation.co.za/media-releases/new-action-plan-against-rheumatic-heart-disease
- Zühlke, L.J. (2011) 'Rheumatic heart disease and the ASAP programme: fresh insights into an old disease', *Continuing Medical Education*, Vol 29. No 11/12.

