

# Rheumatic Heart Disease (RHD) and Acute Rheumatic Fever (ARF) in South Australia

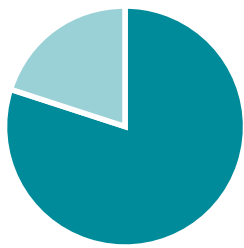
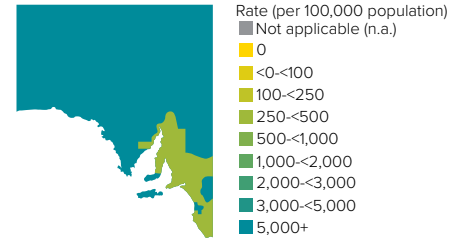


## FAST FACTS

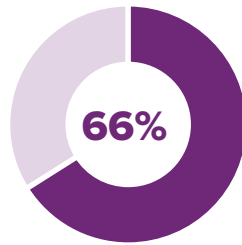
**96%** of the **ARF** reported in Australia is among Aboriginal and Torres Strait Islander people.



ARF and/or RHD diagnoses by **First Nations people in SA**, by region of management at **31 December 2023**

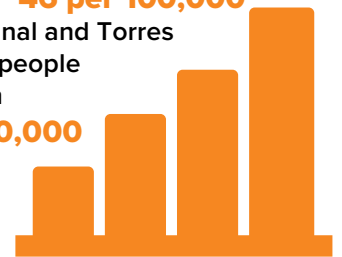


Up to **81%** of people diagnosed with RHD have **NO** prior ARF diagnosis registered



of people diagnosed are **FEMALE**

The **incidence of ARF** is approximately **46 per 100,000** among Aboriginal and Torres Strait Islander people compared with **0.05 per 100,000** for other Australians.



**ARF** is most common in **YOUNG PEOPLE** aged **5-14 YEARS**

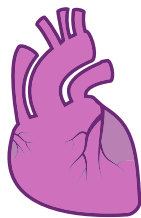
**31%** of people with **ARF** have heart involvement



The rate of **ARF RECURRENCE** among people on prophylaxis is **DECREASING**



Most **HEART VALVE SURGERIES** occur among people aged **25-34 YEARS**

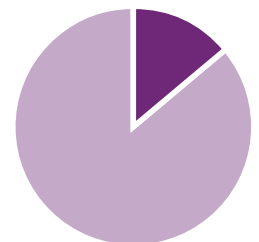


Acute rheumatic fever and rheumatic heart disease are **PREVENTABLE** and **MANAGEABLE**

**MORE THAN 11,000** PEOPLE ARE ON RHD REGISTERS ACROSS AUSTRALIA



**36%** of people have **SEVERE** disease at **FIRST RHD diagnosis**



# Things you need to know



## Rheumatic Heart Disease (RHD) is...

- > inflammation of the heart that occurs with ARF.
- > It can result in permanent damage to the heart, particularly the heart valves.
- > The likelihood of developing RHD increases with repeated episodes of ARF.



## Acute Rheumatic Fever (ARF) is...

- > an illness that may occur after a bacterial infection with group A Streptococcus (GAS) bacteria. This is often a sore throat, tonsillitis, or skin infection.
- > Rheumatic heart disease (RHD) occurs as a complication of ARF.



## In Australia

- > ARF and RHD occur almost exclusively among Aboriginal and Torres Strait Islander peoples, particularly those living across northern and central Australia.
- > New Zealand Māori and other Pacific Islander peoples also experience high rates of ARF and RHD.



## Disease control

- > RHD control programs use disease registers to coordinate care for people with ARF and RHD.
- > The Australian ARF/RHD Guideline includes recommendations and guidance to support clinically sound and culturally safe care.



## Global significance

- > ARF is a sensitive marker of childhood disadvantage.
- > ARF is most common among children aged 5-14 years.
- > RHD is the most common form of acquired heart disease in children and young adults.
- > ARF and RHD are notifiable conditions in some Australian states and territories.



## Pathogenesis

- > ARF is an autoimmune illness which develops after a bacterial Group A streptococcal (Strep A) infection. Not all people with Strep A infections develop ARF.
- > RHD is damage to the heart valves following ARF. The valves can't function normally which leads to leaking or blockage of blood as it moves through the heart.



## Primary prevention

- > Prompt treatment of Strep A throat and skin infections with penicillin prevents ARF.



## Diagnosis of ARF

- > Diagnosis requires a specific combination of symptoms plus evidence of a recent Strep A infection.
- > Symptoms may include fever, red, painful, swollen joints, choreiform movements (chorea), rashes, or lumps under the skin, chest pain or palpitations.
- > Heart involvement is identified by ECG changes and echocardiographic changes.
- > Everyone suspected to have ARF should be admitted to hospital under the care of a medical specialist.



## Treatment for ARF

- > For everyone: penicillin to treat the underlying Strep A infection.
- > For symptoms: analgesia to relieve pain and fever, supportive care for sore joints, consider corticosteroids for severe carditis and anti-epileptics for severe chorea.



## Recurrence

- > ARF tends to recur with subsequent Strep A infections.
- > Intramuscular penicillin given every 21 to 28 days during the period of high risk prevents recurrent ARF.



## Diagnosis of RHD

- > Echocardiography is the international standard for diagnosing RHD.
- > The mitral and aortic valves are most commonly affected.
- > Signs of progressing RHD include breathlessness on exertion or when lying down, fatigue, swelling of the legs and feet, and palpitations.



## Prevention

- > ARF and RHD can be eliminated by ending socioeconomic disadvantage, avoiding household crowding and ensuring timely access to quality health services.