

# Introduction

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Rheumatic fever (RF) is an inflammatory disease that may develop from two to three weeks after a Group A streptococcal infection (such as strep throat or scarlet fever). It's caused by antibody cross-reactivity and can involve the heart, joints, skin, and brain. Acute rheumatic fever commonly appears in children between ages 5 and 15 (**Wikipedia et al., 2009**).

Rheumatic fever (RF) is an autoimmune disease which is responsible for cardiac valve disease or Rheumatic heart disease (RHD). It occurs about from 2 to 6 weeks following a streptococcal upper respiratory infection. It is prevented by adequate treatment of the infection with appropriate antibiotic therapy within 9 days of onset of streptococcal infection before further complications can occur (**Karla, 2005**).

Worldwide, rheumatic fever remains a major health problem, occurring in approximately 100 in 100.000 children under the age of 18 years (**Maria et al., 2001**).

It in the United States (US) the disease occurs more often in school-age children in areas where streptococcal Pharyngitis is more prevalent, especially during the colder months (**Williams & Wilkins, 2008**).

In Egypt, Rheumatic heart disease (RHD) was considered to be the first cause of death and disabilities among school age children. It represents a serious health problem, as it where affected 8-9 per 10.000 of children between 6-12 years (**Carapetis, 2002; El-Shafie & Bahgat, 2003; El Nagar, 2005**). In an Egyptian study Rheumatic fever is still affecting young children with 10% of cases having their first attack of Rheumatic activity before 15 years of age (**Kotby et al., 1998**).

The management of RF includes eradication of the streptococcal bacteria and treatment of other symptoms, such as joint inflammation, CHF, and chorea. Penicillin is the drug of choice for eradication of streptococcus. Erythromycin may be used in penicillin-allergic children. Once the diagnosis is firmly established, anti-inflammatory agents, including aspirin, or corticosteroids in the presence of significant carditis, are administered to speed resolution of the inflammatory process, although neither therapy has been proved to have an effect on the incidence or course of carditis. The duration of therapy is tailored according to the clinical course of the child (**James & Ashwill 2007**). With anti-inflammatory medications such as aspirin or corticosteroids **American heart association (AHA, 2008)**.

The pediatric nurse has a unique opportunity to assess the child and his family regarding the practice of self management skills, to encourage and monitor child's compliance to treatment plan. This will enhance health promotion of children, decrease the complication, disabilities and period of hospitalization ( **James & Ashwill 2007**).