

# Echocardiogram screenings are effective in preventing rheumatic heart disease

June 12 2012

---

Routine screening with echocardiogram can detect three times as many cases of rheumatic heart disease (RHD) as clinical examinations, offering a novel approach in preventing this common disease, according to a new study in *Circulation*. The study, conducted by cardiologists from Children's National Medical Center, is the largest single-population study in Africa. The August issue of *Nature Reviews - Cardiology* features a summary of the article in its Public Health feature.

The study screened nearly 5,000 school-aged children in Uganda and 130 had abnormal echocardiograms. After further evaluation at a hospital, 72 children were classified as having RHD, compared with just 23 children who met the diagnosis criteria for [clinical evaluation](#). This represents a 400 percent increase in identification with an echocardiogram.

"What we found is that there were many children who had clinically silent RHD, which would have gone undetected without an echocardiogram," said Children's National's Andrea Beaton, MD, the lead author. "Echo screenings allow us to identify at-risk patients early, which in turn allows for early intervention to prevent more serious disease and complications."

The team performed upwards of 250 screenings daily, making echocardiograms an efficient and effective means for screening. The authors' recommendations include:

- Focus screening on children 10 years old in lower [socioeconomic groups](#), to maximize limited resources
- Provide a two-staged approach to RHD detection (initial echo screening followed by comprehensive follow up)
- Continue to support global efforts to treat subclinical RHD

RHD is the world's most common acquired cardiovascular disease, affecting approximately 15 million people, with a high incidence in developing countries. RHD is caused by repeated exposure to streptococcal bacteria, or strep throat, which is treated with antibiotics - when easily accessible. Repeated exposure to strep can lead to RHD, which carries many risks, including death. By identifying signs of RHD early, children can receive readily available antibiotics to prevent serious harm.

"Our study supports the World Heart Federation's new guidelines for using [echocardiograms](#) to diagnose RHD, so our hope is that more countries will adopt system-wide screening programs for this preventable disease," said Craig Sable, MD, a pediatric cardiologist at Children's National and senior author of the paper.

Dr. Sable has been leading cardiac screening programs in Uganda for the past 13 years. He and a large team from Children's National have screened more than 1,000 children and coordinated the care for more than 150 children in the United States. Dr. Sable has also led six cardiac surgery missions to Uganda since 2007 and coordinated additional surgical trips by other teams; more than 150 children have undergone open heart surgery in Uganda.

Provided by Children's National Medical Center

Citation: Echocardiogram screenings are effective in preventing rheumatic heart disease (2012,

June 12) retrieved 21 July 2023 from

<https://medicalxpress.com/news/2012-06-echocardiogram-screenings-effective-rheumatic-heart.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.