

Yale School of Medicine uses ResearchKit App to assess heart conditions

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Participate in new clinical study with others all over the United States. 7:51 PM Carrier 🖘 **About This Study** Study Ca Study Age Distribution 33% HCM A resource for patients and families. A clinical study to understand and improve quality of life in individuals with cardiomyopathies. Principal Investigators: E. Kevin Hall, M.D. and Michele Spencer-Manzon, M.D. App and Tooling in Swift and Clojure by E. Kevin Hall. With special thanks to Marcus Aden, Vincent Balbarin, Lukasz Bator, and Laura Quinn. 5.



Yale ResearchKit App will assess heart conditions. Credit: E. Kevin Hall, Yale University, Apple, Inc.

Imagine being able to contribute to research about heart problems affecting children and adults with an iPhone app. That idea is now a reality with today's launch of the <u>Yale Cardiomyopathy Index</u>, an iPhonebased clinical study to better understand quality of life for people ages two to 80 who have or may develop a cardiomyopathy—an abnormality in the heart muscle.

Developed by Yale School of Medicine researchers E. Kevin Hall, and Dr. Michele Spencer-Manzon, the app uses ResearchKit, a software framework designed by Apple, to easily turn an iPhone into a powerful gateway between leading medical institutions and patients around the world.

Cardiomyopathies are diseases of the <u>heart muscle</u> that limit the <u>heart</u>'s ability to effectively pump blood through the body. They are present in as many as 1 in 500 individuals.

Parents and their <u>children</u> ages 2 to 18 can take part in the study together, with tailored questionnaires designed to assess how a cardiomyopathy affects children of different age groups. The questions are modified to be appropriate for each age group. For the youngest group (ages 2 to 7), parents take part on their own. As the children get older, each age group has questions that reflect important issues for those children. Adults between age 18 and 80 participate on their own.

"Our study is the first to use ResearchKit to better understand these heart



issues affecting children and young adults," said Hall, assistant professor of pediatric cardiology and Director of the Pediatric Heart Failure Program at Yale School of Medicine. "With a parent or guardian's permission and co-participation, children as young as 8 can provide assessments of how their cardiomyopathy, or their risk of developing a cardiomyopathy, affects their daily lives."

With the Yale Cardiomyopathy Index app, eligible individuals contribute self-assessments of their quality of life and heart-related symptoms. They may also perform six-minute walks to assess physical function and heart rate trends. Educational resources are available within the application to assist in understanding the cardiomyopathies.

"Understanding how these conditions affect people's day-to-day lives is of significant importance in better treating patients," said Hall. "We believe this app will go a long way in helping us learn how to improve patients' quality of life."

Provided by Yale University

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