## ACHD Clinics---the USA

Background

## Congenital Heart Disease

#### A Continuum

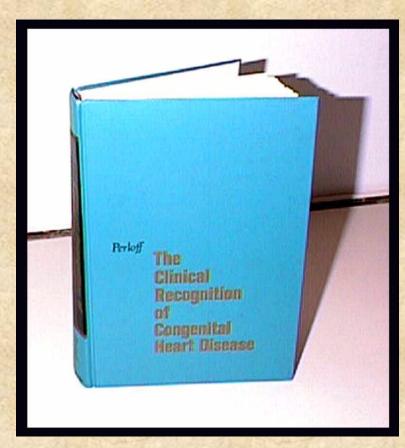
**Neonates** 

**Infants** 

Children

**Adolescents** 

Adults



First Edition

This book includes all ages in order to give a complete, unified and uninterrupted impression of each malformation.

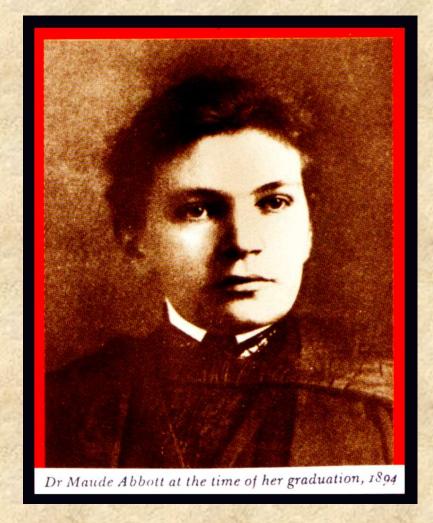
# Children Are Not Small Adults. Adults Are Not Large Children.

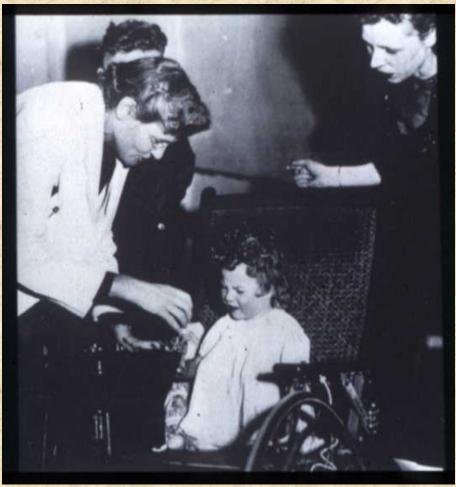


Before World War II, congenital malformations of the heart were regarded as hopeless futilities, an occupation appropriate for the few women in medicine. Maude Abbott was advised by William Osler to occupy herself with the anatomic specimens at McGill, and Helen Taussig was advised to occupy herself with the hopeless futilities in the children's clinic at Hopkins. Congenital heart disease in adults was unheard of.

But now, approximately 85% of infants with congenital heart disease in developed countries reach adulthood.

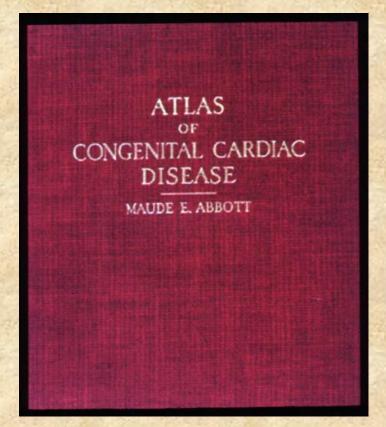
The hopeless futilities have come of age.





Maude Abbott

**Helen Taussig** 



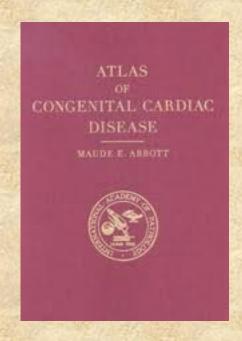
1936

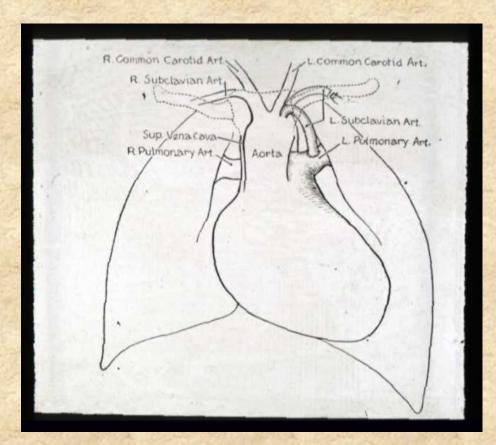
# The Osler Library McGill



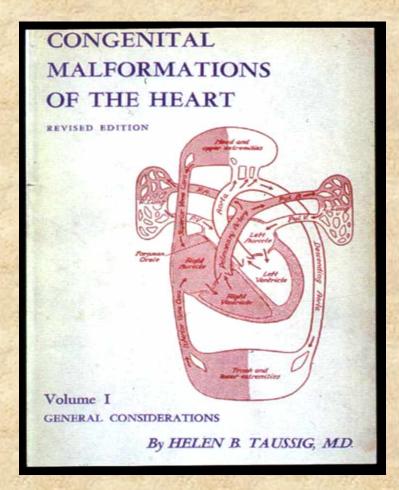
#### Maude Abbott's 1936 Atlas

- Still selling in 2012---\$95.00 shipped FREE with Super Saver from Amazon.com.
- An invaluable source of survival patterns before the advent of cardiac surgery.





The Blalock Taussig
Operation 1944



Taussig's Book 1947



#### BETHESDA CONFERENCES

22nd Bethesda Conference, October 1990
Congenital Heart Disease After Childhood:
An Expanding Patient Population
Joseph K. Perloff, Conference Chair

32nd Bethesda Conference, October 2000
Care of the Adult with Congenital Heart Disease
Gary Webb and Roberta G. Williams, Conference Chairs

# Congenital Heart Disease In Adults The Future of Children

Conviously distances.

# Congenital Heart Disease in Adults

3rd Edition



Joseph K. Perloff

John S. Child Jamil A. Aboulhosn

SALMOURS

Copyright of Material



The Infant



The Postoperative Adult

# The Future of Congenital Heart Disease

Despite remarkably precise anatomic and physiologic diagnoses and astonishing surgical feats, cures in the literal sense are few.

We are therefore obliged look beyond the present and assume responsibility for the long-term care of new generations of patients with the sequelae and residua of postoperative congenital heart disease.

# A Problem Long Term Follow-Up By Whom?

The relative geographic mobility of populations in the United States makes it unlikely that patients with congenital heart disease will remain under the long term care of their pediatric cardiologists.

# Adult Congenital Heart Disease in the U.S.

Simple, moderately complex, complex: 900,000 to 1,000,000

About 20,000 open operations per year

Annual increase approximately 5% per year

Currently, there are more adults with CHD in the US than there are infants and children.

#### Resources in the United States

Specialty Board Certification

Pediatric Cardiology------1,200

Cardiovascular Medicine-----20,000

# The Solution Specialized Tertiary Care for Adults With CHD

Specialized facilities for the comprehensive care of adults with congenital heart disease offer services difficult if not impossible to duplicate by practicing physicians or in community hospitals.







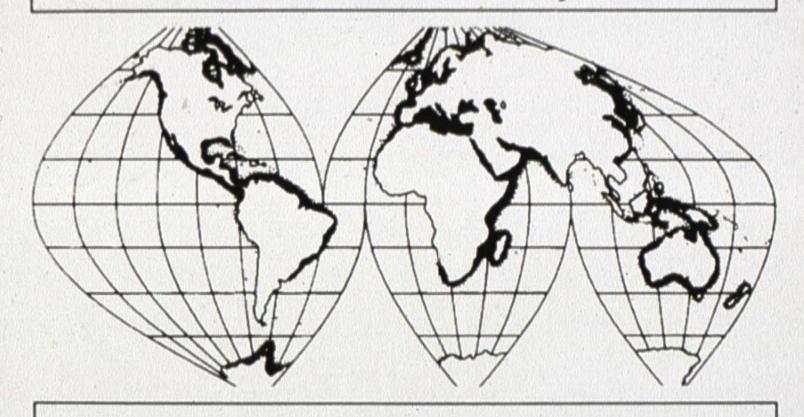
Los Angeles 2012 The UCLA Hospital

#### **ACHD Clinics**

Adults with congenital heart disease are best managed in an adult setting, whether outpatient or inpatient. Clinic personnel must understand the surgical procedures, the post operative residua and sequelae, and the general medical illnesses that adults with congenital heart disease acquire during the course of aging.

#### **Worldwide Organizations**

#### International Society for



**Adult Congenital Cardiac Disease** 

# Patient Advocacy Group the United States



#### Problems to be Resolved

Residua and Sequelae After Reparative
Surgery for
Congenital Heart Disease

# A Problem Resolved Pulmonary Hypertension

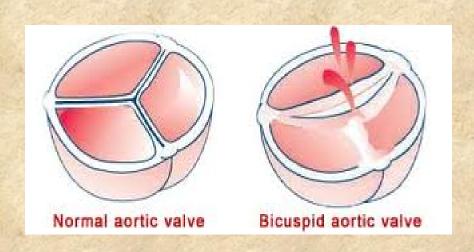
The pharmacologic treatment of pulmonary hypertension has been a major step forward.

Bosentan (Actelion)

## Residua After Reparative Surgery

Valvular Noncardiovascular Electrophysiologic Ventricular

# Valvular Residua Bicuspid Aortic Valve



# Noncardiovascular Major Residua



**Healed Brain Abcess** 

## Noncardiovascular Minor Residua

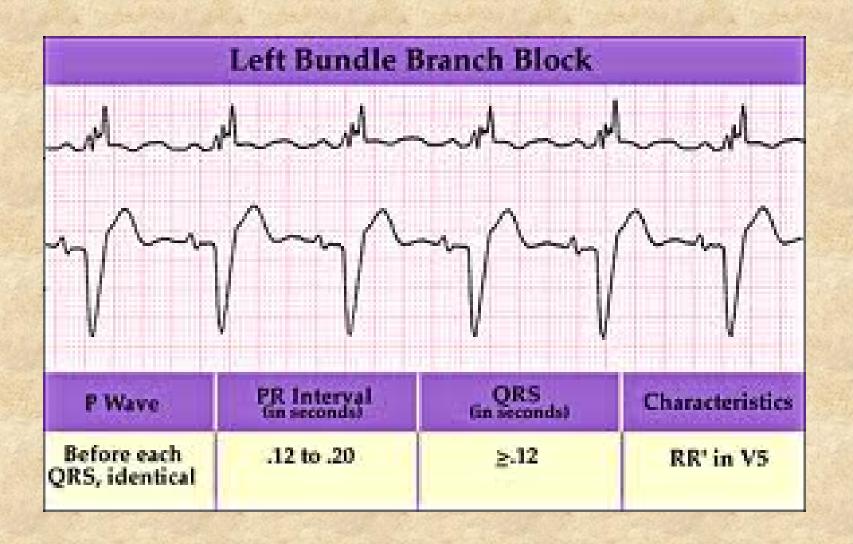


Malformed Teeth in Williams
Syndrome

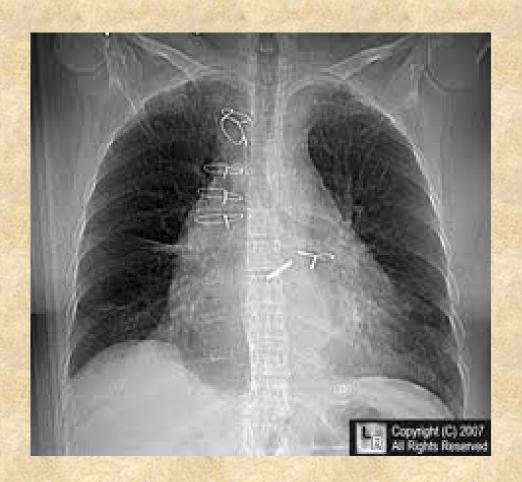
# Sequelae After Reparative Surgery for Congenital Heart Disease

Electrophysiologic
Valvular
Prosthetic materials
Myocardial & Endocardial
Vascular
Neurologic

### Electrophysiologic Sequelae



# Valvular Sequelae



**Prosthetic Aortic Valve** 

#### **Good News**



Improvements will continue. What we have witnessed thus far may be the end of the beginning, but it is not the beginning of the end.