

# Diagnosis and Treatment of Congenital Heart Disease in Children

Aliakbar Rezaei\*

Department of Pediatrics, University of Tehran, Tehran, Iran

## DESCRIPTION

An abnormality in the heart's structure that is present from birth is referred to as a congenital heart defect.

The most common signs and symptoms in newborns include shortness of breath, cyanosis, heart murmurs, sweat during feeding, puffy face, slow weight gain, breath rapidly during feeding, fatigue, slow blood circulation etc.

Medical professionals are unaware of the root cause of congenital cardiac abnormalities. Genetically, they might be transferred from parent to child. Children with genetic diseases like Down Syndrome frequently have congenital heart problems. Congenital cardiac abnormalities are more likely to be present in a child whose mother smokes during pregnancy.

The common side effects of congenital heart defects include stroke, mental health disorders, arrhythmias, congestive heart failure, heart infections and developmental delay.

## Diagnosis

Some tests are performed by physicians to treat the congenital cardiac defects in newborns.

**Pulse oximetry:** The amount of oxygen in the blood is measured using a sensor that is applied to the fingertip. A heart or lung condition may be indicated by low oxygen levels.

**Echocardiogram:** Ultrasound waves are used in an echocardiography to provide images of the beating heart. It demonstrates how the heart's valves and blood flow through the heart. A fetal echocardiography is an echocardiogram performed on a baby before birth.

**Chest X-ray:** The health of the heart and lungs can be seen on a chest X-ray, it can indicate whether the heart is enlarged or

whether the lungs are overflowing with blood or another fluid. These might indicate cardiac failure in newborns.

## Treatment

The course of treatment will depend on how severe the CHD is and whether the child has any additional cardiac or other congenital problems.

The physician is able to perform a variety of procedures, including as closing a hole in the heart, installing stents, or injecting balloons into an artery. An untreated congenital cardiac abnormality occasionally has no long-term impact on a child's health. If children have a severe congenital heart defect, a heart procedure or surgery may be recommended. The following heart operations and techniques are used to address congenital heart defects are cardiac catheterization, heart surgery, heart transplant, fetal cardiac intervention etc.

## Prevention

There are several actions may help to reduce the general risk of birth abnormalities for children such as get proper prenatal care, take a multivitamin with folic acid, avoid smoking and drinking, get rubella (German measles) vaccine, avoid harmful substances, manage chronic health conditions, control blood sugar, check the medications before taking etc.

## CONCLUSION

Unlike adults, PHF (Pediatric Heart Failure) is frequently caused by structural heart disease and treatable diseases, making it susceptible to long-term or intensive short-term treatments. Surgery, catheter intervention, myocardial preservation, and intensive care have all made tremendous, innovative advancements over a lengthy period of time, benefiting pediatric cardiovascular medicine and surgery.

**Correspondence to:** Aliakbar Rezaei, Department of Pediatrics, University of Tehran, Tehran, Iran, E-mail: aliazrezaei1987@gmail.com

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