

Pediatric Congenital Heart Block

What You Should Know

Congenital Heart Block (CHB)

a conduction disorder in the fetal heart occurring at the atrioventricular (AV) node that may cause bradycardia or an irregular heart rhythm. CHB can occur with or without structural heart disease and is commonly caused by neonatal lupus.

How Prevalent is Congenital Heart Block?



CHB occurs after **1 per 15,000-20,000** live births, with a high neonatal mortality rate of **15%-30%** of cases in utero and first months of life.



CHB occurs in **2%-5%** of all pregnancies without previous CHB...



and in **12%-25%** of pregnancies with previous CHB.

Degrees of Heart Block

1

First Degree Heart Block:

Characterized by slowed conduction of electrical impulses from atria to ventricle.

2

Second Degree Heart Block:

Characterized by a partial block that slows or intermittently stops impulses to ventricles, resulting in skipped or slowed beats.

3

Third Degree Heart Block:

Complete, and ventricles beat independently from atria.

Risk Factors



Mothers who carry anti-Ro/SSa and anti-La/SSB autoantibodies during pregnancy



Maternal smoking



Fetal hydrops



Mothers with previous pregnancies complicated by CHB



Use of corticosteroids before conception in mothers positive for anti-SSA antibodies

Prevention

Primary prevention: The exact causes of most CHB are unknown and cannot be prevented, though there are recommendations that might reduce the child's overall risk of congenital structural heart defects, such as:



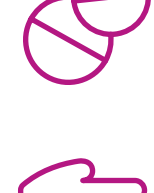
Staying up to date on rubella and influenza vaccinations



Avoiding alcohol during pregnancy



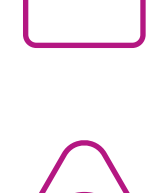
Smoking cessation



Adding a 400-mcg folic acid supplement



Controlling diabetes mellitus during pregnancy



Maintaining a healthy weight, getting regular exercise



Avoiding organic solvents, heavy metals, herbicides/pesticides, and teratogenic medications

Secondary prevention: Hydroxychloroquine helps to prevent recurrence of CHB in the fetuses of pregnant mothers who test positive for anti-SSA/Ro antibodies and who have given birth to a child with CHB.

Signs and Symptoms

Lethargy

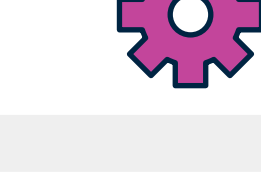


Cyanosis of skin, fingernails, and lips



Fatigue and diaphoresis with feeds

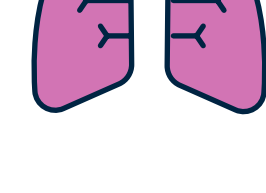
Restlessness, irritability



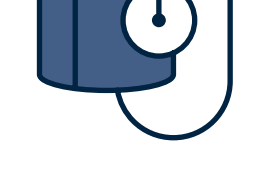
Poor weight gain



Fetal ventricular rate less than 55 beats per minute



Tachypnea, Dyspnea



Syncope

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