

## **CONGENITAL HEART DISEASE (CHD): THE FACTS!**

Congenital heart disease means that your baby is born with a heart problem.

One in every 100 to 150 newborn babies will be affected by this condition.

The heart starts out as a simple tube which very early in pregnancy is fashioned into a complex pump. The process involves the growth of tissue that divides the heart into compartments, specialization of some cells to take on the pumping action, and others to conduct electrical impulses.

We are not sure what is the cause of most defects however the factors that result in defects must be present between the second to ninth weeks of pregnancy. One theory is that the genetic material concerned with the normal development of the heart is carried on a number of different genes. In the presence of certain environmental conditions these genes malfunction, leading to errors in the formation of the heart.

### **Problems that may cause congenital heart defects:**

- Infections – Rubella, (German measles), has been most implicated but other viruses particularly cytomegalovirus and herpes may also play a role.
- Medications and Drugs - phenytoin, amphetamines, sex hormones (estrogen and progesterone), lithium and alcohol.
- Cigarette smoking
- Maternal conditions - such as diabetes mellitus, systemic lupus erythematosus, multiple pregnancies, and giving birth at older ages.

### **What Can We Do?**

Women should have their babies in the recommended age range 20-35 years. Avoid excessive smoking and alcohol intake. Avoid taking medication, especially those listed above, during pregnancy. Have your appropriate immunizations (vaccinations). All women in the reproductive age group must be vaccinated against German measles. In the case of diabetes, early antenatal care will allow for proper detection and control if it is present in pregnancy.

There is a slightly increased risk that children of mothers who themselves have congenital heart disease, or those with a family history are more likely to have children with defects. Doctors are now able to examine the baby's heart inside the womb through the use of foetal echocardiography to discern if the foetus has a heart defect.

The routine check up of babies by paediatricians at age six weeks is very important. Most congenital defects that cannot be identified at birth will become obvious at this time.

### **The Good News.**

Surgery for congenital heart disease has shown dramatic advances over the last 20 years. Echocardiography a painless ultrasound procedure with no known side effects can now give us important details about the heart in a short time. Most defects will need to be and can be corrected surgically or by cardiac catheterization (inserting a tube into the heart by way of a large blood vessel.)

Less than 3 children in 100 000 die from the corrective surgeries. Early detection and treatment of congenital heart defects can now enable children to live fuller and healthier lives

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