

Fact Sheet

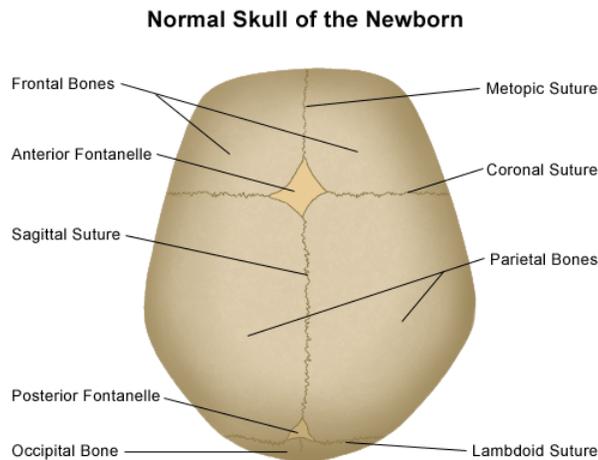
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Craniofacial Anomalies

What are craniofacial anomalies?

Craniofacial anomalies occur when the bones of the skull or face do not form correctly. The skull is made up of several bones that are connected with sutures (fibrous joints). Typically, a baby's skull bones do not fuse until after birth so the head can fit through the birth canal. As the child grows, the sutures gradually close. When a child has craniosynostosis, the bones fuse too early.



What are different types of craniosynostosis?

- **Plagiocephaly** results from fusion of one of the coronal sutures, which causes flattening of the forehead and brow on one side and makes the other side look prominent.
- **Brachycephaly** results from fusion of both of the coronal sutures, which causes the head to be shortened front to back with a tall, flattened forehead.
- **Acrocephaly** (or oxycephaly) results from fusion of the coronal suture plus any other suture, or fusion of all of the sutures. This causes the top of head to be pointed or conical. Acrocephaly is the most severe type of craniosynostosis.
- **Trigonocephaly** results from fusion of the metopic suture, which causes a triangular shaped forehead.
- **Scaphocephaly** (or dolichocephaly) results from fusion of the sagittal suture, which causes the head to be long front to back and narrow from ear to ear. This is the most common type of craniosynostosis.

What types of problems occur with craniofacial anomalies?

A child with a craniofacial anomaly may have an unusual head shape and his or her eyes or ears may not look even. Because the skull is not able to grow, pressure could build up on the brain and cause brain damage. This could cause developmental or learning problems.

How common are craniofacial anomalies?

Craniosynostosis occurs in about 1 in every 2000 births in the United States. It is more common in boys than in girls. In Virginia, about 82 babies are reported each year with craniofacial anomalies.

What causes craniofacial anomalies?

The cause of many cases of craniosynostosis is unknown. It is thought that cases may be due to a combination of environmental factors and genetic factors. Parents of a child with isolated craniosynostosis (no other birth defects) have about a 4 percent chance of having another child with craniosynostosis.

A craniofacial anomaly can occur as the only birth defect a child has. It can also occur in combination with other birth defects as part of a syndrome (combination of findings). Craniofacial anomalies as part of a syndrome can be caused by changes in one of a group of genes that make fibroblast growth factor receptors (FGFR), which affect how different parts of the body grow. The way in which a syndrome is passed through the family is specific to the given syndrome. A genetic counselor or geneticist can help you determine the risks for your family and situation.

How are craniofacial anomalies treated?

Most children with craniosynostosis will need surgery to separate the sutures, reshape the bones, and place them in the proper position. The goal of surgery is to allow the brain to grow and correct major alterations in the shape of the face and head. Surgery is usually performed before the child is one year old. Only about 10 percent of children will need a second surgery.

Where can I go for more information about craniofacial anomalies?

AboutFace USA
www.aboutfaceusa.org

FACES, The National Craniofacial Association
www.faces-cranio.org
(423) 266-1632

Forward Face
www.forwardface.org
(212) 684-5860

March of Dimes Birth Defects Foundation
www.modimes.org
1-888-MODIMES (1-888-663-4637)

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