Plagiocephaly

Plagiocephaly is a condition in which a baby develops a flattened area on his or her head. A baby's skull is made up of seven plate-like bones that are not joined together. This allows the bones to slide under each other during birth, in order to help the baby fit through the birth canal. The floating bones also allow the skull to expand along with the baby's rapidly growing brain. The "joints" where these plates meet are called the sutures. The sutures grow together (*fuse*) when the baby is around age two.

Babies who sleep in the same position often develop a flattened area (in back or on the side) due to the repeated pressure in that area. This is called *positional plagiocephaly*.

Synostotic plagiocephaly occurs when one or more of the sutures fuse together too early. This causes that part of the skull to stop growing, while other areas continue to grow. The baby's head may appear flat in some areas, misshapen, and not well-proportioned. You may even be able to feel a ridge along the area where the sutures have fused. The baby's face may also appear uneven (*asymmetrical*).

CAUSES

Positional plagiocephaly occurs when a baby is repeatedly placed to sleep in the exact same position. Premature babies are often prone to this because their medical condition often prevents them from varying their position. Babies may develop this condition in utero if they are positioned up against one of their mother's pelvic bones. Twins or other multiples are particularly prone to developing this while in utero. This is due to the relatively smaller space available to each baby. There is a good chance that the baby's head may be resting against the hard surface of one of their siblings' or their mother's bones for months of development.

There is often no identifiable cause of *synostotic plagiocephaly*. In some cases, this type may "run in a family." There may be a genetic basis for the disorder. Some children may have a syndrome involving other facial deformities, as well as heart, kidney, genital or other defects.

SYMPTOMS

Symptoms may include:

- Flattened area or areas in the skull.
- Uneven, asymmetric appearing head and/or face.
- One eye appears to be higher than the other.
- One ear appears to be higher or more forward than the other.
- A bald spot, since lying in the same way may also rub off newly-grown hair.

DIAGNOSIS

This condition is usually diagnosed when a parent or caregiver notices a flat spot or feels a hard, bony ridge in the baby's skull. The caregiver may measure the baby's head in several different ways, and may also compare the placement of the baby's eyes and ears. An x-ray, CT scan, or bone scan may be done to look at the skull bones and to determine whether a skull suture has grown closed. Blood testing may be done if there is a suspicion of an underlying genetic disorder.

TREATMENT

- More mild cases of positional plagiocephaly can be treated very simply. This can be done by placing the baby in a variety of sleep positions (although it is important to follow recommendations to only use back- and side-sleeping positions). During awake periods, when you are supervising your baby, encourage her to lie on her stomach to play. Your caregiver may decide to treat more significant cases of positional plagiocephaly by prescribing a specialized helmet or headband that will slowly and carefully re-shape the head.

- Synostotic plagiocephaly almost always has to be corrected through an operation. Surgery is performed in order to avoid brain damage that may occur if the growing brain does not have enough room. The brain presses up against hard, immovable skull bones. Most babies undergo surgery between the ages of 3-9 months. Depending on whether other head or facial deformities are present, further surgeries may be needed.

HOME CARE INSTRUCTIONS:

- Follow your caregiver's directions for positioning your baby for sleep and play.
- Only use a head-shaping helmet or band if prescribed by your caregiver. Use these devices exactly as directed.
- If your baby had surgery, care for the incision as directed.
- Keep the incision covered when the baby is in sun. Use sun screen if directed to do so.
- Do physical therapy exercises exactly as prescribed.

SEEK IMMEDIATE MEDICAL CARE IF YOUR BABY:

- Develops an unexplained oral temperature above 102.0° F (38.9° C).
- Seems to be in increasingly severe pain.
- Seems less alert or responsive than usual.
- Will not stop crying.
- Refuses to feed.
- Is throwing up (*vomiting*).
- Has a seizure.
- Has had surgery and the incision develops new redness, swelling, warmth, discharge or red streaks.

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