

Flat Head Syndrome (Deformational Plagiocephaly)

Understanding, Preventing, and Treating Flat Head Syndrome in Babies



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What is Flat Head Syndrome (Positional Plagiocephaly)?

Flat Head Syndrome occurs when a baby develops a flat spot on the back or side of their head. You may notice it at birth, or it may appear in the first few months of life. The medical terms for these conditions are “positional plagiocephaly” and “brachycephaly.”



Plagiocephaly



Brachycephaly



Scaphocephaly

Uneven flattening of the back of the head is called plagiocephaly. The flattening may cause the ear and face to shift forward on the same side. When the flat spot is more central, along the back of the head, it is called brachycephaly. This causes the head to look tall and wide. A long and narrow head shape is called scaphocephaly.

Why does my baby have a flat head?

Your baby's skull is soft in the womb and in the first few months after birth. The skull grows a lot in the first year and can easily change shape with constant pressure.

Some of the risks of flattening you cannot change such as restricted uterine space, a difficult delivery, an early delivery, a large head, or being a twin. Be aware that the birthing process can influence head shape, but this usually corrects on its own within a couple of months.



Image above shows plagiocephaly.

What can be done to prevent Flat Head Syndrome



- 1. Tummy time:** Placing your newborn on their tummy to play keeps them off the back of their head and helps improve neck control.
- 2. Repositioning:** Alternate positions for feeding and sleeping. If your baby prefers to look in one direction, use toys or distractions during play to encourage them to look in the opposite direction. Do not place anything inside the crib when your baby is sleeping.
- 3. Limit time in reclined positions:** Avoid lengthy periods of time in car seats, swings, strollers, and bouncy chairs.

Important: Babies should be placed on their back to sleep. Even though sleeping on the back can increase the risk of flat spots, it significantly lowers the risk of Sudden Infant Death Syndrome (SIDS). **Sleeping on the back is the only recommended sleeping position for your baby.**

How is my baby's Flat Head Syndrome treated?

If your baby is younger than four months, the accepted treatment is increasing tummy time, repositioning, and/or physiotherapy. If the flattening is mild and continues to round out at four months old, these treatments may continue to be effective. If your baby is older than four months, or the flatness is increasing, they may benefit from Cranial Remolding Orthosis (CRO) treatment.



What is a Cranial Remolding Orthosis (CRO)?

A Cranial Remolding Orthosis (CRO), also called a helmet, is a custom-made orthotic device that redirects skull growth. The CRO holds the shape of the larger, rounded areas of the head and leaves open spaces over the flattened areas. This allows the head to grow into the flattened areas, creating a more round, symmetrical head shape. It also prevents pressure over the flat spot while your baby is lying down.



Cranial Remolding Orthosis (CRO) treatment

Does CRO Treatment Work?

Yes. Research shows that CRO treatment works to help the flattened areas round out and it is recommended if your baby has noticeable flattening of their head.

Who Provides CRO Treatment?

Certified Orthotists (CO(c)) are the most qualified professionals to assess and treat your baby's flat head syndrome with a CRO due to specialized education during their clinical training.

What Can I Expect During CRO Treatment

The recommended use is 23 hours a day. Following this recommendation improves correction and decreases treatment time. The average length of treatment is between two and six months. At regular follow up appointments, your Certified Orthotist will monitor head shape and growth; the CRO will be adjusted as needed.

Are There Any Risks to CRO Treatment?

There is a risk of minor skin irritation. Your Certified Orthotist will work with you to manage any skin irritation that may occur.

What will happen if my baby's Flat Head Syndrome is not treated?

Mild head flattening has shown to correct on its own if left untreated. Moderate to severe flattening with infants over six months will not correct, however may appear less noticeable with age. Research shows a higher risk of inner ear infections, vision, and jaw issues may occur if untreated. Currently, there is no evidence that flat head syndrome directly causes developmental delays in children.

Is there funding available for CRO treatment?

Your Certified Orthotist will discuss funding options available to you in your Province / Territory. Many health insurance plans will help cover the costs. In all cases, you will need a prescription from your doctor.



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