European Craniofacial Medical Center

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Consultation Guide and Clinical Evidence

This guide provides you with the necessary tools for a conversation with your pediatrician. Based on evidence, early detection is the key to avoiding developmental sequelae.

7 KEY QUESTIONS FOR THE PEDIATRICIAN

1 Is there muscular torticollis or restriction in the range of rotation?

Without treating the muscular cause, constant pressure will prevent natural correction.

2 What is the exact classification: Mild, Moderate, or Severe?

It is vital to quantify the asymmetry to determine if orthopedic treatment is necessary.

3 What type of deformity do you observe: Plagiocephaly, Brachycephaly, Scaphocephaly, mixed deformity?

Identifying the exact type of deformity is crucial to define the correct therapeutic approach.

4 Are there signs of facial asymmetry (forehead, cheeks, or ears)?

Facial involvement indicates a severe deformity that can cause dental malposition and risk of otitis due to tortuosity of the external auditory canal and homolateral astigmatism.

5 Is there evidence that moderate/severe cases correct themselves?

Scientific literature shows that significant deformities do not resolve without intervention after 4 months. There are scientific articles that demonstrate the efficacy of Doc Band®. If another helmet is recommended, ask if there is scientific literature that proves its efficacy...

6 Are we in the window of maximum bone plasticity?

The success of the treatment depends directly on the speed of cranial growth at this stage; the ideal is to start treatment between 4 and 8 months when growth is fastest.

7 Can we perform an objective measurement with a Bertillon cephalometer?

Without exact millimeters, it is not possible to scientifically monitor progress or worsening.

MEDICAL PROBLEMS ASSOCIATED WITH CRANIAL DEFORMITIES

Association between Positional Plagiocephaly and Developmental Delay in a Primary Care Network

Journal of Developmental & Behavioral Pediatrics, February 2021 | ***View publication on PubMed***

Infants with plagiocephaly are 1.5 times more likely to present developmental delays than those without this condition, according to a study with 77,108 children.

The most affected areas are motor, language, and general delays. Additionally, the diagnosis of plagiocephaly generally preceded the identification of the delay (in 92.6% of cases), suggesting that it could be an early risk indicator.

Cognitive Outcomes and Positional Plagiocephaly

Pediatrics, February 2019 | ***View article on PubMed Central***

Longitudinal follow-up demonstrated that children with moderate to severe asymmetries in infancy obtained lower scores on cognitive and academic tests.

Hearing Problems: Event-Related Auditory Potentials (ERP) Reveal Brain Dysfunction in Infants with Plagiocephaly

Journal of Craniofacial Surgery, July 2002 | ***View publication on ResearchGate***

Infants with plagiocephaly show reduced amplitudes in auditory ERP (P150/N250), indicating early brain involvement and a higher risk of auditory processing disorders.

This study demonstrates, for the first time, that central sound processing is affected in these children.

SCIENTIFIC EVIDENCE: WHY DOC BAND® IS UNIQUE

Doc Band® is a helmet with scientific studies that demonstrate its efficacy. With a weight of approximately 170 grams, the DOC Band® is 32% lighter than most helmets available on the market.

Treatment of Craniofacial Asymmetry through Dynamic Orthopedic Cranioplasty

Journal of Craniofacial Surgery, January 1998 | ***View publication on PubMed***

Since 1988, more than 750 infants with positional plagiocephaly have been treated with customized DOC Band® orthoses.

The device applies selective pressure to redirect growth, achieving significant reductions in cranial, skull base, and facial asymmetries. The average treatment duration was 4.3 months (average starting age: 6.9 months), and follow-up data confirmed almost complete correction in a variety of cranial shapes.

Treatment with Helmet for Infants with Deformational Brachycephaly

Sage Open Pediatrics, October 2018 | ***View publication in SAGE Journals***

Cranial deformities in infancy form a spectrum ranging from plagiocephaly (asymmetric) to brachycephaly (symmetric but disproportionate). Despite the mistaken belief that brachycephaly cannot be treated with a cranial orthosis, a prospective study with 4,205 infants (2013–2017) showed that 81.4% improved their cephalic index (from 95.0 to 89.4).

Additionally, it was observed that early treatment start (in younger infants) is associated with better results and shorter therapy duration.

> ***DOC Band®:*** *It is the only dynamic molding band. While other helmets are passive molds that wait for growth, DOC Band® applies gentle hydrostatic pressure on specific areas to actively and three-dimensionally direct growth.*

If you wish, you can obtain a free online diagnosis.

GET ONLINE DIAGNOSIS

RECOMMENDATIONS AND CONSENSUS

Congress of Neurological Surgeons: Systematic Review and Evidence-Based Guide on the Role of Therapy with Cranial Molding Orthoses (Helmet) in Patients with Positional Plagiocephaly

Neurosurgery, November 2016 | ***View official link (PubMed)***

A systematic review by the Congress of Neurological Surgeons concludes that therapy with a cranial molding helmet offers more significant and rapid improvement of skull shape in infants with positional plagiocephaly, compared to conservative therapy, especially in severe cases and when applied during the optimal infancy period.

However, specific criteria for measuring and quantifying the deformity, as well as the most appropriate time to start treatment, are still not defined. In general, infants with more severe deformities and those who use the helmet from early ages achieve more notable correction (even normalization) of head shape.

Decision No. 2017.0086/DC/MRAPU of June 28, 2017, from the College of the High Health Authority - France

Haute Autorité de Santé, June 2017 | ***Haute Autorité de Santé***

Plagiocephaly can cause **mechanical complications** at the **maxillofacial or cervicobrachial level**, and even **cognitive** ones.

The Letter from the LIEN Association Published by HAS on the Risks of Plagiocephaly - France

Haute Autorité de Santé, July 2017 | ***View publication at Haute Autorité de Santé***

In fact, since the beginning of the 1990s and their mass diffusion, these practices are responsible for skull deformations known as **«plagiocephalies»**, associated with disorders of varying severity that sometimes cause significant damage to the psychic, brain, or physical development of the infant. These disorders, which are difficult to recover from after two and a half years, can cause a reduced development coefficient in some children. The identified problems are biomechanical, physiological, aesthetic, and psychological.

Indeed, according to two specialist doctors in France, Bernadette de Gasquet and Thierry Marck, authors of the book «My Baby Will Not Have a Flat Head: How to Prevent and Treat Baby Plagiocephaly» (Albin Michel, 2015), it is possible to achieve an improvement and even an almost total disappearance of these adverse effects that are harmful to the normal development of a child, while simultaneously maintaining the recommendations aimed at combating the terrible sudden infant death. However, **there seems to be a**

certain indifference, ignorance, or denial of this reality within a medical community that limits itself to recognizing the undeniable benefits of these practices.

Doc Band® the helmet with scientific studies that demonstrate its evidence

With a weight of approximately **170 grams**, the DOC Band® is **32% lighter** than most helmets available on the market.

Babies get used to it quickly, without significant discomfort. The helmet does not prevent sleeping, playing, or developing with complete normality.

SCHEDULE APPOINTMENT