

Does My Baby Have A Flat Head?

When does nature need a nudge?

How does this happen?

The plasticity and open sutures of the new-born's skull makes it susceptible to external pressures in the womb during the birth process and after birth.

Common causes include:

- Restricted space inside the mother's womb
- Excessive time in carriers, car seats, strollers
- Tight clothing and covering that prevents spontaneous movement
- Insufficient "tummy-time"
- Torticollis

Is this just a Cosmetic Issue?

No, asymmetry can lead to:

- Mandibular asymmetry and a thickened mandible causing the teeth to be rotated and off centre.
- Increased risk of developing RA in the jaw
- TMJ
- Developmental delays linked to Plagiocephaly (***please see attached reference articles***)
- Orbital depth disproportion
- Facial asymmetry

How does the helmet work?

Each helmet is custom designed to gently and safely guide the growth of the skull into correction.

Helmets can be used between 4-18months of age, with best results seen when treatment starts before the age of 9 months.

The remoulding process typically takes 12 weeks to complete, but the duration of treatment is dependent on the severity of the skull, age of the baby and rate of growth.

A white light scanner is used to capture a 3D image of the babies skull. The diagnostic test is conservative and minimally invasive.



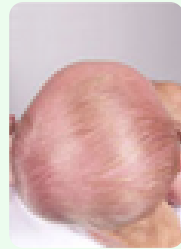
Common Shape Deviations:



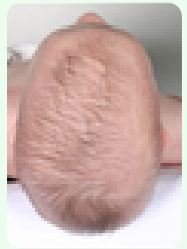
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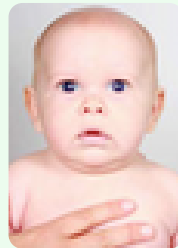
Plagiocephaly



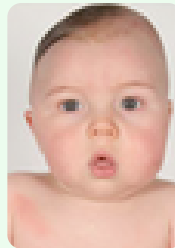
Brachycephaly



Scaphocephaly



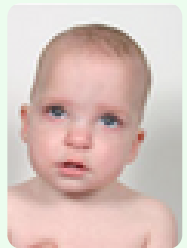
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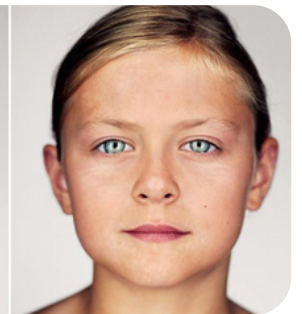
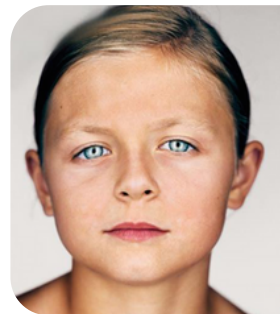
Plagiocephaly



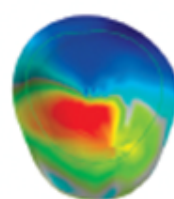
Brachycephaly



Scaphocephaly



BEFORE
TREATMENT



SCANNER
DATA



AFTER
TREATMENT

Before and After Treatment



*"Yovanka was the first practitioner in Africa to offer the American FDA-approved Cranial Remoulding Treatment. She has **successfully treated over 1000 children** and pioneered the introduction of 3D-printed helmets to the continent. As a result, Yovanka is recognised as Africa's leading cranial remoulding specialist."*

Helmet Protocol:

Initial Consultation	R2 068.80
Cranial Remoulding Helmet	R44 000.00
Fitting and Cleansing Solution	R1 923.50
Follow Ups (One scan very 3-4 weeks)	R1 100,00
Adjustments charged only when required	R1 205.60
Final Scan	R1 100.00

Advancements in Clinical Care

The references listed below represent the findings of interdisciplinary groups relative to the support of cranial remolding orthoses for the treatment of deformational plagiocephaly. This list is intended to provide a summary of key findings and is in no way intended to cover the entire scientific body of knowledge about deformational plagiocephaly, repositioning, therapy and orthotic treatment. Important findings are listed for each publication as they relate to appropriate diagnosis, prescription criteria, referral pathways and outcomes for infants identified with skull deformities.

Effectiveness of Conservative Therapy and Helmet Therapy for Positional Cranial Deformation

Plastic and Reconstructive Surgery (2015)

IMPORTANT FINDINGS: More than 4000 patients identified and treated with repositioning, repositioning and therapy, or cranial remolding orthosis

- Deformational plagiocephaly can be managed with conservative therapy and cranial remolding orthoses and are guided by patient-specific risk factors
- CROs address external factors that limit the effectiveness of repositioning efforts
- CROs may be the preferable course of treatment at the outset
- Delaying the initiation of helmet therapy for a trial course of repositioning does not prevent correction of the deformity as long as the orthotic treatment is begun during the appropriate period of growth and families are compliant with the wearing schedule
- In the cranial remolding orthoses treatment group, complete correction was achieved in 95.0 percent of patients

Jordan P. Steinberg, MD, PhD, Roshni Rawlani, BA, Laura S. Humphries, MD, Vinay Rawlani, MD, Frank A. Vicari, MD

Cranial Molding Helmet Therapy and Establishment of Practical Criteria for Management in Asian Infant Positional Head Deformity

Child's Nervous System (2014)

IMPORTANT FINDINGS: Over 1000 infants underwent molding helmet therapy after being diagnosed with deformational plagiocephaly

- Evaluation of anterior, posterior and overall skull symmetry
- Improved outcomes were found in the severe group when treatment was initiated earlier
- Treatment was especially effective when initiated at 4 months of age
- Better outcomes were obtained with earlier treatments
- Molding helmet therapy is effective with early identification and appropriate timing of the treatment program
- The misconception that an infant's head "will round out on its own as the child becomes more active, begins to roll over and learns to sit up" is based on outdated scales of motor development and a lack of appreciation for the effect of sustained supine positioning
- Pediatricians must be aware of the time-sensitive nature of cranial remolding programs to optimize outcomes

Yasuo Aihara, Kana Komatsu, Hitoshi Dairoku, Osami Kubo, Tomokatsu Hori, Yoshikazu Okada

Summary: Evidence Based Guidelines for the Treatment of Pediatric Positional Plagiocephaly

Congress of Neurological Surgeons (2016)

IMPORTANT FINDINGS: Guidelines endorsed by the American Academy of Pediatrics

- Diagnosis of deformational plagiocephaly is made by physical examination
- Repositioning is most effective for infants 4 months or younger
- Helmets are especially effective for severe deformities
- Physical therapy is more effective than repositioning for severe cases
- Cranial remolding orthoses are indicated for infants over 8 months of age with significant deformities or younger infants non-responsive to repositioning or physical therapy
- Helmets are more effective than therapy for severe asymmetry and must be provided during the appropriate period of growth during infancy
- Infants with severe deformities who are treated early will obtain better outcomes

Ann Marie Flannery, MD; Mandeep S. Tamber, MD, PhD; Catherine Mazzola, MD; Paul Klimo Jr., MD; Lissa C. Baird, MD; Rachana Tyagi MD; David Bauer, MD; Alexandra Beier, DO; Susan Durham, MD; Alexander Y. Lin, MD; Catherine McClung Smith, MD; Laura Mitchell; Dimitrios Nikas, MD

Plagiocephaly and Developmental Delay: A Systematic Review

Journal of Developmental and Behavioral Pediatrics (2017)

IMPORTANT FINDINGS: Infants identified with misshapen skull often present with developmental delays, primarily motor followed by language

- Plagiocephaly is identified as a marker for a higher risk of developmental concerns and clinicians should screen and monitor these infants
- Early intervention with physical therapy may help to decrease the effects of motor delays and also identify infants in need of longer term developmental programs
- Developmental assessments are warranted for all infants identified with plagiocephaly
- Pediatricians / clinicians should screen for skull deformities and motor delays and promote early referrals for appropriate therapeutic interventions

Alexandra Martiniuk, Cassandra Vujovich-Dunn, Miles Park, William Yu, Barbara Lucas

Facial Asymmetry Correction with Moulded Helmet Therapy in Infants with Deformational Skull Base Plagiocephaly

Journal of Cranio-Maxillo-Facial Surgery (2018)

IMPORTANT FINDINGS: Severe presentations of deformational plagiocephaly is often accompanied by facial asymmetry, ear shift, and disruptions to the skull base

- Cranial remolding orthoses have become an accepted treatment regimen for infants with skull deformities
- Moulding helmet therapy reduced ear shift, improved TMJ position, and improved facial asymmetry within 5 months of treatment
- Cranial remolding orthoses can correct facial asymmetry and associated basal skull asymmetry in infants with deformational plagiocephaly

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