Crown Cradle™

A preemie orthotic device to support the development of an infant's natural head shape

The Crown Cradle:

- Promotes physiologic flexion, containment, and midline positioning
- Encourages proper alignment of head, neck, and spine
- Can be used during x-rays and MRI's
- Helps to keep head in midline position when used in combination with the Dandle PAL or Cozy Cub
- Positions the infant at a 4 degree incline

Protecting the infant's brain is always a priority.

You do everything you can to protect the infant's developing brain. Now, you can also help to protect cranial formation, as well as head, neck, and spinal alignment, with one positioning device – the patented Crown Cradle.

Positioning of hospitalized infants is challenging due to severity of illness, placement of medical devices, caregiver preferences, and/or limited resources for implementing holding and developmental play. Deformational plagiocephaly (DP), hallmarked by cranial flattening, ear misalignment, frontal bossing, and facial asymmetry, can occur as a result of limited positioning options on a bed surface that is often too firm. DP can negatively affect hospitalized infants in the short- and long-term, contributing to altered parental attachment, neurobehavioral problems, and social isolation. Studies have also linked DP with gross and fine motor delays, communication deficits, and vision and hearing problems.[3]

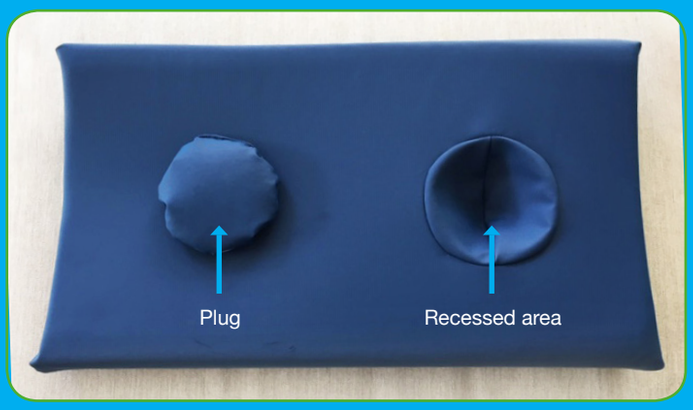
The Crown Cradle is a noninvasive, nonrestrictive adjustable orthotic device that supports development of a hospitalized infant's natural head shape. The Crown Cradle relieves pressure on the occiput, allowing cranial development without the impact of negative external forces. The two-part system includes a specialized mattress with removable foam inserts that comfortably cradle the head and help promote proper alignment of the head, neck, and spine. The foam layer is easily removed and replaced with a plug when prone positioning is desired.

Studies have shown that the Crown Cradle (referred to in the literature as the Cranial Cup, Plagio Cradle, and POD) may reduce the potential impact to the infant's head by redistributing contact pressure, supporting the cranium, and providing a pathway for more symmetrical skull growth. Developed by neonatal professionals committed to advancing neurodevelopmental care, the Crown Cradle allows the bedside caregiver to confidently position the infant while providing proper alignment of the head, neck, and spine and supporting healthy cranial growth.

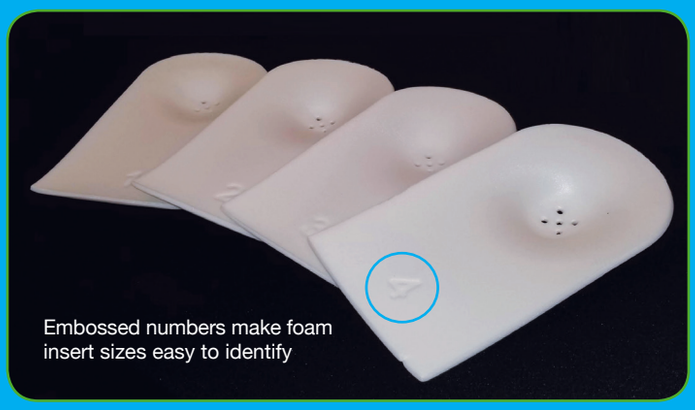
U.S. Patent Nos 7,810,501; 8,186,354 & 8,758,283

Dandle•LION™ MEDICAL

Crown Cradle



Specialized foam mattress, with a recessed area for the infant's head, is wipeable and reusable between patients. Each size foam mattress comes with a "plug" that can be inserted into the recessed area for prone positioning.



Each mattress size comes with four sequentially-sized **foam inserts** that can be upsized as the infant's head grows.

- Small mattress for infants <1800 g, with foam insert sizes 1-4:
  - Size 1: < 750 g
  - Size 2: 750-1000 g
  - Size 3: 1000-1400 g
  - Size 4: 1400-1800 g
- Large mattress for infants 1800-3600g, with foam insert sizes 5-8:
  - Size 5: 1800-2150 g
  - Size 6: 2150-2500 g
  - Size 7: 2500-3000 g
  - Size 8: 3000-3600 g

An **internal pocket** in the soft, high performance fabric cover holds the foam insert in place.

The **foam insert** is inserted in the internal pocket and nested into the **recessed area** of the mattress. The **straps** can be crossed over the infant, as well as any positioning aids that are used, and then tucked in under the mattress.

Crown Cradle Part Numbers:

D 18510 B2	Crown Cradle System, SMALL (Infants <1800 g), Includes Mattress, Mattress Plug, Mattress Cover, Foam Insert Sizes 1-4	Box of 2
D 18530 B2	Crown Cradle System, LARGE (Infants >1800 g), Includes Mattress, Mattress Plug, Mattress Cover, Foam Insert Sizes 5-8	Box of 2

See website for part numbers for individual part numbers and accessories.

References:

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3. DeGrazia, M., Giambanco, D., Hamn, G., Ditzel, A., Tucker, L., & Gauvreau, K. (2015). Prevention of deformational plagiocephaly in hospitalized infants using a new orthotic device. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 44(1), 28–41. http://dx.doi.org/10.1111/1552-6909.12523.
4. Knorr, A., Gauvreau, K., Porter, C., Serino,E. and DeGrazia, M., (2016). Use of the Cranial Cup to Correct Positional Head Shape Deformities in Hospitalized Premature Infants. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 45, 542–552; 2016. http://dx.doi.org/10.1016/j.jogn.2016.03.141.
5. Siatkowski, R. M., Fortney, A. C., Nazir, S. A., Cannon, S. L., Panchal, J., Francel, P., Ahmad, W. (2005). Visual field defects in deformational posterior plagiocephaly. Journal of American Association Pediatric Ophthalmology and Strabismus, 9(3), 274–278. http://dx.doi.org/10.1016/j.aapos.2005.01.011.

For more references, please to go to www.dandleLIONmedical.com/crowncradle.

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