



## BRIEF CLINICAL STUDIES

## Ear Deformations in Preterm Newborns: Non-Surgical Treatment

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### Abstract

Approximately 30% of newborns have some degree of congenital ear anomalies, the minority will resolve spontaneously. Deformations can be treated non-surgically, when diagnosed early, whereas malformations surgically only. The authors use the EarWell system proven to achieve excellent results in treating deformations. Although prematurity might raise the risk of ear-deformations compared to term infants, in our experience, there is a longer time frame until effective treatment is initiated due to the cartilage malleability.

Treatment included splinting with retractors and taping or a custom-made silicone ear-mold if necessary. Patients were examined weekly, and treatment continued until appropriate ear shape was achieved (6–14 weeks).

The authors treated 8 preterm infants during 2018 to 2020 with the above method. Average age of application was 9.25 weeks; treatment was initiated in all patients before the age of 12 weeks. 5/8 had a right-side, 2/8 a left-side, and one a bilateral deformation. Average treatment duration was  $10 \pm 2.9$  weeks. Assessment of satisfaction was made by parents via phone questionnaires; most were pleased with the overall result, while 62% were extremely satisfied.

The authors observed higher compliance and longer-lasting malleability of the cartilage in preterm compared to term-infants. They also had fewer complications than in the term group, maybe due to their older (actual age), and more resistant and durable skin compared to a term-infant of the same age. The authors recommend initiating treatment in preterm infants later than accepted practice as results were excellent, and despite the longer treatment duration, this is a better treatment option than surgery.

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