Clinical Background

There is clinical evidence that positional or deformational plagiocephaly can affect cognitive development and increase educational needs\(^1,2\); it can also delay mental and psychomotor development\(^3\). All babies are at risk of developing what is commonly known as occipital flattening, or flat head syndrome, in early infancy. Many babies who develop a positional head preference will not develop complications and most deformities will generally self-correct; there are however some infants who will require further ongoing paediatric care.

Infants born prematurely have a greater incidence of skull deformity attributable to moulding after birth\(^4\). Most of these deformities improve spontaneously during the first few months of life if the infant doesn’t rest its head predominantly on the flattened area of the skull. However with continued head preference an initial occipital plagiocephalic deformity may be perpetuated or worsened\(^5-7\).

Further, clinical guidelines recommend the supine midline head position should be adopted for extreme premature babies during the first 72 hours of life, to help prevent IVH\(^8\).

Product Information

The Tortle Midliner can be used to provide optimal care during IVH protocols and also to prevent the long-term effects associated with cranial asymmetry and head preference. It provides lateral head boundaries to simulate the in-utero environment. The Midliner was developed specifically to help prevent and treat plagiocephaly, brachycephaly and dolichocephaly (scaphocephaly). All of these can have a significant impact on a child’s development if not managed, so the potential benefit should not be underestimated.

The unique head positioning system is very simple and easy to apply, minimising handling and stress on the baby and thus promoting good developmental care practice. The design makes for easy access to the head, particularly when performing scalp IVs and head ultrasound. The device is held securely in place to prevent slippage and the band ensures comfort for the baby at all times and reduces intervention time for nursing staff.

The Midliner simplifies the transition to all positions, including supine mid-line, side lying and prone. The practical configuration of the product ensures there is no need to detach and re-apply respiratory or feeding tubes when moving the baby. It can hold tubes and cannulas often without the need to use tape on the baby's delicate skin. This further contributes to optimal care by minimising disturbance to the patient and making nursing care easier and quicker.

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Tortle's advanced design, coupled with the use of innovative materials, securely holds all nasal CPAP interfaces and nasal cannulas as well as feeding tubes. The product is fully suited for use with patients on a ventilator.

The materials used in the Tortle products are very soft, which is particularly important for small babies who have delicate skin. The product is washable and can be dried on a cool cycle.

The Tortle Midliner is available in three sizes to suit head circumferences for all premature infants and is fully X-Ray compatible. Additional straps can be used to secure phototherapy eye shades.

Tortle Air is available for larger babies. It comes in four different sizes (Extra-Small, Small, Medium & Large) to suit head circumferences from 30-46cm.

### Ordering Information

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Head Circumference</th>
<th>Description</th>
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<tbody>
<tr>
<td>DCP220</td>
<td>17-22cm</td>
<td>Tortle Midliner - ELBW</td>
</tr>
<tr>
<td>DCP221</td>
<td>22-30cm</td>
<td>Tortle Midliner - Micro-Preemie</td>
</tr>
<tr>
<td>DCP222</td>
<td>30-36cm</td>
<td>Tortle Midliner - Preemie</td>
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<tr>
<td>DCP240</td>
<td></td>
<td>Tortle Respiratory Accessory Kit - Midline</td>
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<tr>
<td>DCP241</td>
<td></td>
<td>Tortle Respiratory Accessory Kit - Goalpost</td>
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### References