RAPID Biomedical

MR Coils - Made to Measure

Connectome Neonatal System *

MR Coils Made-to-Measure

Neonatal brain MRI is increasingly undertaken both for clinical care and research with the main focus on enhanced care for fragile babies during scanning and optimized imaging performance.
The Connectome Neonatal System was developed as a joint project by Jo Hajnal, Centre for the Developing Brain & Department of Biomedical Engineering, St. Thomas Hospital, KCL London, U.K. and RAPID Biomedical to consistently gain high image quality when examining babies. This system is being used for the European Research Council funded "Developing Human Connectome Project" (319456) (see ***developingconnectome.org***).

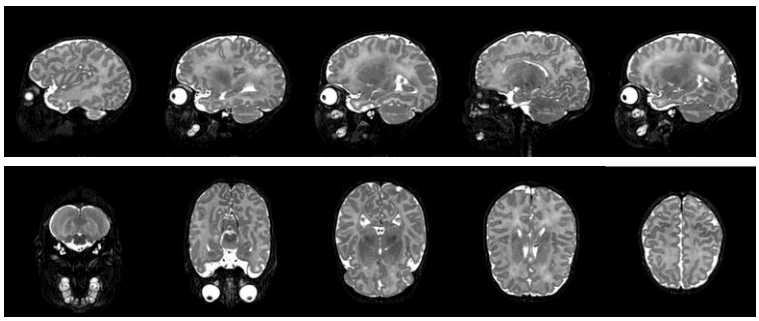

Image Courtesy: Dr. Emer Hughes
Centre for the Developing Brain
& Department of Biomedical Engineering
KCL London, U.K.

The sequence is a T2 TSE with an acquired voxel resolution of 0.8 x 0.8 x 1.6 mm^3 and a slice gap of -0.8 mm. TR=12000 ms, TE=156 ms, SENSE =2. Time =3 mins 25 secs

- dedicated for examining babies up to 44 weeks gestational age at time of scan
- rigid but light shell with positioning holes to prepare the baby
- support frame to slide the head coil over the baby and shell
- close fitting 32-channel multi-coil receiver array
- three immobilisation cushions (Pearltec AG) that conform to the shape of the baby's head
- baby transport trolley (1)
- accoustic hood to protect baby from noise (2)

Specifications

approvals	Medical Device, CE according to Council Directive 93/42/EEC
B_0-field strength	3 T
housing dimensions of the coil	outer diameter coil 20 cm, inner diameter shell 13/15.2 cm housing length coil ca. 25 cm (shell ca. 69 cm, frame ca. 115.4 cm)
weight	coil ca. 5.2 kg + shell ca. 2.7 kg

RAPID Biomedical GmbH - www.rapidbiomed.de - info@rapidbiomed.de - tel. +49 9365 8826 0
Distributor in the United States, Canada and South America:
RAPID MR International, LLC - www.rapidmri.com - info@rapidmri.com - tel. +1 614 486 6300