

BabyFix Cocoon

Safe as a cocoon – Soft as a butterfly's wings

Ideal conditions for a safe and careful examination procedure for newborn babies in the MRI scanner

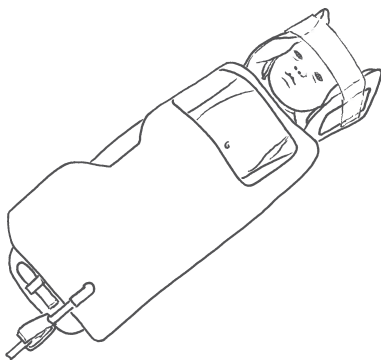
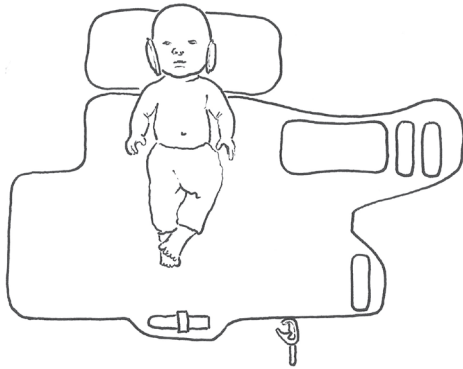


« In addition to the deployment of the BabyFix Cocoon for **feed-and-sleep MRIs** for newborn patients taking place under the responsibility of neonatologists, the anesthesiologists also repeatedly positioned sedated infants (with a body weight of up to approximately 5 kg) in the BabyFix Cocoon in order to test the practicality and (heat) insulation effect. In the cases I am aware of, **the baby was positioned without any problems**, sometimes with an additional neck role, with no vacuum being created in most cases. Neither **cooling** nor **overheating** occurred. All staff members found the BabyFix Cocoon **helpful** and **practical**.

Anesthetist
University Children's Hospital Basel

The Benefits

MRI scans for newborn babies are not an everyday occurrence and pose special challenges for everyone involved due to the difficulty of achieving safe and stable positioning. To meet the high demands of this procedure, the BabyFix Cocoon was developed in close collaboration with experts from the fields of neonatology, anesthesia and pediatric radiology.



Increased sense of wellbeing for parents and child

The slim design and the separate head and body fixation enable the mother to continue breastfeeding, thus facilitating close contact between her and the child during preparation for the scan. Careful, pressure-free positioning with soft, pleasant materials.

Optimized work flow

Easy to use and intuitive enabling routine-based work in interdisciplinary teams.

Increased patient safety

Permanent monitoring of vital functions through an integrated viewing window and simple routing and strain relief for monitoring cables via an in-built hose stopper.

Improved image quality

Stable, stretched and centered positioning of the baby's head and body possible without any problems, even in narrow coils.

Excellent hygiene

High-quality materials can be cleaned easily and consistently until they are free of all residues, thereby facilitating reliable protection.

Simple and intuitive to use in just a few steps

Lay the newborn baby on the positioning aid.



Close the BabyFix Cocoon tightly



Holding and breastfeeding is possible in the positioning aid.



Compatible with all common head coils.



RESEARCH SOLUTION - POSITIONING SYSTEM FOR NEONATES DURING HEAD EXAMINATIONS

Pearl Technology offers customized solutions for research oriented institutes and clinics in terms of placement, positioning and fixation of patients.

BACKGROUND

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 during head exams. This system is being used for the European Research Council funded "Developing Human Connectome Project". For this project, Pearl Technology successfully developed a solution for the ideal positioning of neonates during head examinations with the Connectome Neonatal System.



PROJECT OVERVIEW

The Assignment

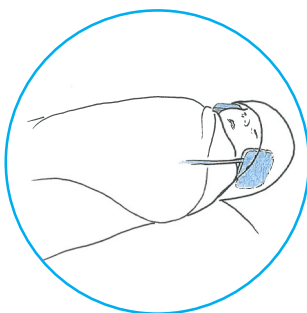
Developing a positioning system which allows to conduct head examinations with neonates. These examinations with the Connectome Neonatal System take place at St. Thomas Hospital, KCL London.

Key Challenge

To develop a positioning system in very small dimensions which facilitates head examinations with neonates in the Connectome Neonatal System. The system allows an easy adaptation to the individual anatomy of the newborn and leads to decreased motion artifacts and thus to more reliable results.

Solution

The positioning system, consisting of ear and neck parts, offers a gentle head immobilization, provides an additional support of the neck region and allows to smoothly tilt the neonate's head. Chambers filled with EPS pearls provide a gentle, even and stable immobilization throughout the entire exam.



WHAT OUR CUSTOMERS SAY...

« I have been impressed by the dedication to detail and technical competence of Pearl Technology AG. Their core technology is so simple but so effective. I think it is fair to say that we would find it hard to deliver our project at anything like the success rate that we have achieved (>90% completed examinations) without Pearl Technology's contributions.



Joseph V Hajnal PhD, Professor of Imaging Science, King's College London