## lisa thorley

## REACH: Randomised trial of Rehabilitation very EArly in Congenital Hemiplegia.

**What is this study about?** This project is about children with asymmetrical brain injury where only one side of the brain is impaired or one side is significantly more impaired than the other. These infants can have problems with the development of hand skills of the arm opposite to the side of the injury (or the more impaired side of the brain). Early treatments are recommended to improve hand and arm development. This study compares two types of intervention to improve hand and arm skills and general motor development. The interventions will start between 3 and 6 months corrected age and will be provided by parents with the support of experienced occupational therapists and physiotherapists.

The first one is called **infant-friendly** **modified Constraint-Induced Movement Therapy (mCIMT)**. A sock or fabric glove is placed on the infant’s more able hand, so the child can practice movement and skills with the impaired hand and arm. mCIMT consists of daily sessions in which one of the parents plays with the infant to encourage him/her to use their impaired hand/arm to interact with toys and the parent. The second intervention is called **infant-friendly Bimanual Therapy (BIM)**. BIM also consists of daily sessions in which one of the parents plays with their infant to encourage equal use of both hands and arms.

**How can you help?** This study seeks 150 babies with asymmetric brain lesions from 4 states across Australia. Babies in the study will be randomly assigned to one of the two types of training.

**Inclusion criteria:** **Infants 6 months (corrected age) or younger with**:

* Asymmetric brain lesion identified on MRI or cranial ultrasound; AND/OR
* Absent Fidgety Movements on General Movements assessment at 12 weeks corrected age; AND/OR
* Reduced upper limb function with asymmetric reach and grasp

**What do you need to do?** You will be taught techniques to train your babies hand skills, for reaching, grasp and manipulation of toys in play activities as part of your daily routine. The therapist will visit you monthly and maintain contact between visits with skype or phone calls. We will ask you to video some of the training sessions. In addition to this daily training, we will need to assess your infant. Assessments at study entry and 6 months of age consist of a short video (30 minutes) of your infant and some questionnaires for you to complete, which we can do in your home. The final 2 assessments at 12 and 24 months take a little more time and will need to be done at the Lady Cilento Children’s Hospital. This will include an MRI at 24 months.

**Benefits:** ***●*** the training may enhance your child’s reaching and grasping skills

● you will receive a summary report of your child’s assessment results

● you will be assisting us to gather information that may influence treatment for

children with brain injury and provide better outcomes for their future

If you would like to find out more or know someone who might be interested, please contact:

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