

Information for Parents

Cranial Ultrasound Scan

What is a cranial ultrasound?

A cranial ultrasound is also known as a 'head scan'. Sound waves are used to look at the brain structure and the fluid spaces within the brain (ventricles). It does not involve any X-rays.

Why is it done?

Cranial ultrasounds are performed to look at problems of premature or complicated births. These include swelling of the brain, bleeding in the brain (intraventricular haemorrhage, IVH), Periventricular Leucomalacia (PVL), and any structural problems.

IVH is more common in premature babies than in full-term infants. Cranial ultrasound can detect most cases of IVH by the first week after delivery. IVH is usually classified into 4 grades, depending on the severity of the bleeding. A grade 1 or 2 bleed has a better outcome for your baby than a grade 3 or 4 bleed.

By contrast, PVL can take several weeks to develop. In PVL the brain tissue around the ventricles is damaged, possibly from decreased oxygen or blood flow to the brain that may have occurred before, during, or after delivery. Several cranial ultrasound tests may be done to evaluate suspicious areas in the brain.

Both IVH and PVL increase an infant's risk of developing disabilities that range from mild learning difficulties or delayed motor development to cerebral palsy.

Not all infants with an abnormal scan will develop problems. Most infants with grade 1 or 2 IVH will have normal development. Some infants with a normal scan may develop problems in future.

Cranial ultrasound may also be done to evaluate an infant's large or increasing head size (hydrocephalus).

Who will have a Cranial Ultrasound?

Cranial ultrasound scans are performed:

- As part of routine screening for infants born prematurely (less than 32 weeks).
- For babies born at full-term with complications around the time of delivery.
- To evaluate an enlarging head.

How is it done?

No special preparation is required before having this test.

This test is done by a doctor who specialises in X-rays (radiologist) or one of the doctors from the neonatal unit. With the baby lying on his or her back, a probe is moved across the soft spot (fontanel) on top of your baby's head. Pictures of the brain and fluid chambers (ventricles) can be seen on a video monitor.

A cranial ultrasound usually takes 10 to 15 minutes.

There is no discomfort involved with having a cranial ultrasound test. The gel may feel a little cold when it is applied to the skin.

Risks

There are no known risks associated with a cranial ultrasound test.

Results

One of the doctors will speak to you within a couple of days of the scan. A copy of the scan is stored as part of your baby's records.

Who do I ask for more information?

Please ask to speak to one of the nurses or doctors if you have any further questions.