

# Intraventricular hemorrhage or IVH

## What is an intraventricular hemorrhage?

An intraventricular hemorrhage or IVH is bleeding from fragile blood vessels within the ventricles of the brain. Ventricles are small, “cave-like” spaces within the brain that are normally filled with clear fluid called cerebrospinal fluid, or CSF.

It is very common for premature babies to have IVH to some degree. Premature babies are more likely to have IVH because the blood vessels lining the fluid spaces of their brains are very fragile and sensitive to changes in blood flow. Changes in blood flow may cause the blood vessels to rupture and bleed. This bleeding usually occurs within the first week of life.

## How can I tell if my baby has IVH?

IVH is usually found by an ultrasound scan in the first few days of life. This test does not hurt you baby. It is just like an ultrasound you may have had during your pregnancy. During the ultrasound, sound waves are sent through the soft spot on your baby’s head. As the sound waves travel through the brain, the ultrasound machine reads them and makes a picture of the brain. Any bleeding will show up on this picture.

IVH is described as a small bleed (least serious) to an extensive bleed (most serious).

 <p><b>Small bleed</b></p> <ul style="list-style-type: none"> <li>• A small amount of bleeding that stays in a limited area of the ventricles.</li> <li>• The blood is absorbed and there is little or no lasting effects.</li> </ul>	 <p><b>Moderate bleed</b></p> <ul style="list-style-type: none"> <li>• Blood spreads into the ventricles, but does not cause them to get bigger (enlarge).</li> </ul>	 <p><b>Large bleed</b></p> <ul style="list-style-type: none"> <li>• The ventricles are enlarged by the blood and continue to increase in size over time.</li> </ul>	 <p><b>Extensive bleed</b></p> <ul style="list-style-type: none"> <li>• Bleeding into the ventricles and beyond, into the tissue of the brain.</li> <li>• This irritates the brain and may put pressure on the brain.</li> </ul>
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## What happens if my baby has an IVH?

If your baby has an IVH, the doctors and nurses will talk with you about:

- The results of the ultrasound: the amount of bleeding, where it has happened, how far it has spread and how to monitor any changes.
- How your baby may be affected.
- The care your baby needs while in the hospital and after discharge.

IVH may cause slight changes in your baby's behaviour that you can hardly notice. Or there can be major changes with a large or extensive bleed, such as needing a ventilator to help with breathing or treatment to relieve pressure on the brain.

Depending on where the bleeding happens, your baby may have more ultrasound tests.

When you leave the Neonatal Nursery, your baby's health and behaviour continue to be checked at follow-up appointments at the Neonatal Follow-up Clinic at McMaster Children's Hospital or with your own pediatrician.

**If you have any questions about IVH or your baby,  
please talk with a member of your care team.**