

Periventricular Leukomalacia (PVL)

What is Periventricular Leukomalacia?

Periventricular Leukomalacia or PVL can be better understood if we breakdown what the words mean.

- “Peri” means “around”
- “Ventricular” means fluid filled spaces in the brain
- “Leuko” means “white”
- “Malacia” means “softening.”

So PVL means a softening of the white brain tissue around the ventricles. When PVL happens, there is damage done to the brain resulting in eventual loss of the brain tissue. This damage can lead to poor communication between different parts of the brain.

Why does PVL occur?

PVL has many causes and all premature babies are at risk for PVL. Infants with bleeding in the brain (intraventricular hemorrhage or IVH) are at increased risk.

How is PVL found?

A head ultrasound (picture of the brain) is performed prior to going home to help find PVL. Not all PVL is seen on head ultrasound, therefore sometimes we use other machines such as an MRI, a large magnet and computer that takes pictures of the brain. These pictures do not cause pain to your baby. After your baby goes home, your baby’s doctor will monitor brain development and will be able to identify if your child is at higher risk.

Can PVL be treated?

Unfortunately, there is no treatment for PVL.

How does this affect my baby?

Because of the loss of the brain tissue, your baby may not interact well with his or her environment. Right now, we do not have any medicine to reverse this. There may be brain complications as your baby grows.

Here are some examples of brain complications:

- Muscles that are tight or stiff
- Not sitting, crawling, standing or walking when expected or not at all
- Frequently arching his or her back and not just because your baby is upset
- Seizures can occur, but these are not common
- Behavioral problems
- Learning disabilities, especially in reading and math
- Hearing can be affected, and deafness can occur
- Vision can be affected, and blindness can occur

Each baby is different. Please talk to the health care team if you have any questions. They are your greatest resource for information and guidance.