Spina Bifida (Myelomeningocele)

What is spina bifida (myelomeningocele)?
This type of spina bifida (myelomeningocele) affects the brain and spinal cord in a developing baby. It is a birth defect of the neural tube and a severe type of spina bifida. It happens when the neural tube doesn’t form in the right way and has a hole that leaves the spinal cord and nerves exposed after birth.

Some spina bifida (myelomeningocele) facts

- Spina bifida (myelomeningocele) causes the nerves and spinal cord to be outside of the baby’s back at birth.
- It’s a disorder called neural tube defect (NTD).
- Surgery to close the defect is usually needed within a few days after birth.
- Babies with spina bifida (myelomeningocele) may also have a Chiari malformation, where the brain isn’t in its normal place, in the head by the neck.
- Most babies with spina bifida (myelomeningocele) also have hydrocephalus, a health problem caused by too much fluid around the brain that can cause pressure. The fluid is called cerebrospinal fluid.
  - Hydrocephalus:
    - Causes an increase in size of the ventricles of the brain (brain’s drainage system)
    - Can cause problems with the baby’s learning, memory and attention because of the cerebrospinal fluid
    - Needs long-term care. A surgeon places a shunt or long tube into the brain to drain the fluid into the belly. While shunts can help ease certain symptoms, they also put babies at higher risk for brain infections, such as meningitis and encephalitis.

What symptoms will babies have after birth?
NTDs can happen any place along the spinal cord. Symptoms include:

- Any organs or muscles below the level of the defect are affected.
- Most of the time, the bladder and bowel are affected, making it hard to control bowel movements (pooping) and urination (peeing).
- Babies may have a weak lower body and legs, making it hard to walk.
- Babies may have weak face muscles and have problems breathing.
- Often, the brainstem is affected, making it hard to swallow and speak.