

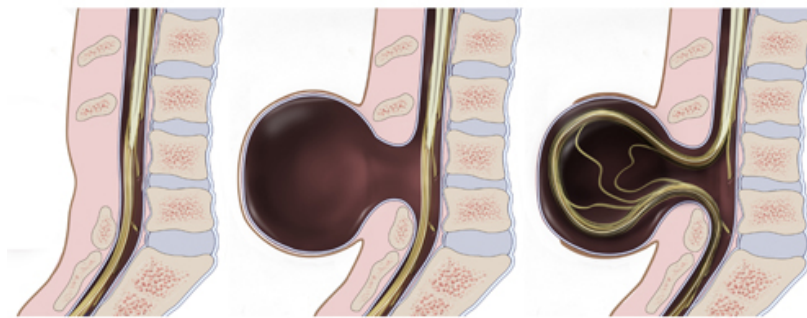
Spina Bifida

What is it?

Spina bifida is a condition of the spine and is a type of neural tube defect. It involves the brain, spinal cord, and/or meninges, a protective covering over the brain and spine. **Spina bifida** occurs when the neural tube does not close all the way. The **neural tube** should close during the first few weeks of pregnancy. The backbone, which protects the spinal cord, does not form and close as it should in a person with spina bifida. This can happen anywhere along the spine, and the spinal cord and nerves are often damaged. Physical and intellectual disabilities ranging from mild to severe might occur. It depends on the size and location of the opening in the spine and on whether part of the spinal cord and nerves are affected.

The three most common types of spina bifida are:

- **Myelomeningocele (pronounced my-low-ma-nin-jo-seal):** Most serious type of spina bifida. A sac of fluid comes through an opening in the baby's back, and damaged spinal cord and nerves are in the sac. This type causes moderate to severe disabilities. It also may cause a loss of feeling in legs and feet, not being able to move the legs, and difficulty going to the bathroom.
- **Meningocele (pronounced ma-nin-jo-seal):** A sac of fluid without the spinal cord comes through an opening in the baby's back. There is often little or no nerve damage, though minor disabilities can occur.
- **Spina bifida occulta (pronounced o-cult-tuh):** Least severe form of spina bifida. There is a small gap between the bones in the spine, but no opening or sac on the back. The spinal cord and nerves are normal, and the gap is usually covered by skin or a patch of hair.



Spina bifida occulta

Meningocele

Myelomeningocele

Image courtesy of the Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities

How common is it?

About 1,500 babies each year will be born with spina bifida in the United States. This is about 3 – 7 babies for every 10,000 births.

What causes it?

Not all the causes of spina bifida are known. There may be many factors that cause it. Spina bifida happens in the first few weeks of pregnancy, when a woman usually does not know she's pregnant. There are ways to reduce the chance of having a baby with spina bifida. Before and during pregnancy it is important to take folic acid every day because it can reduce the risk of neural tube defects, such as spina bifida. It is important to avoid overheating while pregnant. This includes not using hot tubs or saunas.

How is it diagnosed?

Spina bifida can be diagnosed during pregnancy or after a baby is born. Spina bifida occulta may not be diagnosed until later in life or not at all. Screening tests during pregnancy can check for spina bifida. Meningocele and myelomeningocele can be seen shortly after birth. Doctors will often want to take an image of the spine to see the exact defect.

How is it treated?

Treatment will vary from person to person. Surgery can repair the appearance of the spine, but it cannot fix the damaged nerves. Any problems with the spine, feet, or hips will be managed. People with spina bifida occulta may not need any treatment, while people with myelomeningocele and meningocele often need more care. Your child's doctor will discuss appropriate treatment options with you.



For more information:

Centers for Disease Control and Prevention

<https://www.cdc.gov/ncbddd/spinabifida/facts.html>

Mayo Clinic

<https://www.mayoclinic.org/diseases-conditions/spina-bifida/symptoms-causes/syc-20377860>