

Spina Bifida

National Institute of Neurological Disorders and Stroke (NINDS)

Source

National Institute of Neurological Disorders and Stroke (NINDS). [Spina Bifida Information Page](#).

Spina bifida (SB) is a neural tube defect (a disorder involving incomplete development of the brain, spinal cord, and/or their protective coverings) caused by the failure of the fetus's spine to close properly during the first month of pregnancy. Infants born with SB sometimes have an open lesion on their spine where significant damage to the nerves and spinal cord has occurred. Although the spinal opening can be surgically repaired shortly after birth, the nerve damage is permanent, resulting in varying degrees of paralysis of the lower limbs. Even when there is no lesion present there may be improperly formed or missing vertebrae and accompanying nerve damage. In addition to physical and mobility difficulties, most individuals have some form of learning disability. The types of SB are: myelomeningocele, the severest form, in which the spinal cord and its protective covering (the meninges) protrude from an opening in the spine; meningocele in which the spinal cord develops normally but the meninges and spinal fluid protrude from a spinal opening; closed neural tube defects, which consist of a group of defects in which development of the spinal cord is affected by malformations of the fat, bone, or meninges; and occulta, the mildest form, in which one or more vertebrae are malformed and covered by a layer of skin. SB may also cause bowel and bladder complications, and many children with SB have hydrocephalus (excessive accumulation of cerebrospinal fluid in the brain).