



Empowering Children. Supporting Families. Building Brighter Futures.

Resource 063 | Brain, spinal cord, and seizure conditions

Spina bifida

What it means

Spina bifida is a group of conditions involving incomplete formation or closure of the spine during early pregnancy. Its forms differ considerably. Some cause little impairment; others affect movement, sensation, bladder and bowel function, and learning. Care should reflect the child's specific anatomy and functional needs. [1]

Causes and risk factors

Spina bifida develops when the neural tube does not close or form as expected. Genetic and environmental factors contribute, including folate status and certain medical or medicine-related risks. The cause is usually multifactorial. A diagnosis should not be used to assign blame to a parent. [1,2]

General family education. A concern deserves assessment, but this guide does not diagnose a child or prescribe treatment.



Signs and everyday impact

Open forms are usually identified before or at birth. Other forms may be recognized through skin findings or later symptoms. Leg weakness, reduced sensation, foot differences, bladder or bowel difficulties, and hydrocephalus may occur. Mobility and learning needs vary, and many children use assistive equipment effectively. [1,2]

Assessment and diagnosis

Prenatal ultrasound and selected pregnancy tests may identify some forms. After birth, examination and imaging define the spinal difference and associated conditions. Neurological, orthopedic, and urological assessment guide care. Developmental and learning assessment should also consider attention and executive skills when relevant. [1,2]

Treatment and therapy

Care may include spinal surgery, treatment of hydrocephalus, kidney and bladder monitoring, and individualized bowel management. Physical and occupational therapy, orthotics, mobility equipment, and educational support promote independence. Bladder procedures and catheter use require specific clinical teaching. Long-term coordinated follow-up addresses growth, skin protection, mobility changes, and family goals. [1,2,3]

Support at home

Follow the prescribed bladder, bowel, mobility, and skin-care plans. Check areas with reduced sensation as the team advises. Make play and community spaces accessible, and encourage the child to make choices about participation. Share medical and school plans so practical supports remain consistent.

When to seek help

Seek urgent care for new weakness, changed bladder function, fever or suspected urinary infection, or signs of shunt problems. Sudden loss of function, severe illness, or reduced consciousness requires emergency assessment.

Questions for your care team

- What type of spina bifida does my child have?
- How will kidney, bladder, skin, and shunt health be monitored?
- Which mobility and school supports improve participation?



Podcast preparation

Use this outline to develop a later podcast script.

Suggested opening

Welcome to Mariel Early Intervention. Today we discuss spina bifida. Spina bifida is a group of conditions involving incomplete formation or closure of the spine during early pregnancy. This is general education; each child needs individualized care.

Opening: Define the topic and its developmental context.

Understanding: Explain causes and signs without inviting self-diagnosis.

Assessment: Describe evaluation and distinguish screening from diagnosis.

Support: Discuss treatment, therapy, and practical family supports.

Closing: Explain urgent signs and one clear next step.

Misconception to address: Myth: all forms of spina bifida have the same effects. Support needs vary widely.

Before recording: update clinical references and local service details, arrange clinical review, and use fully consented or fictional examples.

Terms in plain language

- Neural tube: the early structure that develops into the brain and spinal cord.
- Orthotic: a support device used to assist alignment or function.
- Neurogenic bladder: bladder dysfunction related to nerve control.

Sources and further reading

Sources accessed 3 October 2026. Numbered references support the clinical overview. Treatment availability and referral routes vary by country.

[1] About Spina Bifida

<https://www.cdc.gov/spina-bifida/about/index.html>

[2] Manage Spina Bifida

<https://www.cdc.gov/spina-bifida/treatment/index.html>

[3] Hydrocephalus

<https://www.ninds.nih.gov/health-information/disorders/hydrocephalus>