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Spina Bifida

Overview

What is it

Spina bifida (myelomeningocele, meningocele, occulta) – causes, symptoms, treatment What is Spina Bifida? Spina Bifida is a birth defect in which the spine and spinal cord don't form properly. It's a type of neural tube defect that can lead to physical and intellectual disabilities. What Causes Spina Bifida? The exact cause of Spina Bifida is unknown, but it is believed to be a combination of genetic and environmental factors. Risk factors include a family history of neural tube defects and folic acid deficiency during pregnancy. What are the Different Types of Spina Bifida? There are several types of Spina Bifida: Spina Bifida Occulta, the mildest form; Meningocele, where the protective coverings of the spinal cord protrude; and Myelomeningocele, the most severe form, where the spinal cord and nerves protrude through an opening in the spine. How is Spina Bifida Diagnosed? Spina Bifida can be diagnosed during pregnancy using prenatal screening tests like ultrasound, amniocentesis, and blood tests. Post-birth diagnosis is based on physical examination and imaging tests like MRI or CT scans. What are the Treatments for Spina Bifida? Treatment depends on the severity and type of Spina Bifida. It may include surgery to close the opening in the spine, physical therapy, assistive devices for mobility, and addressing complications like bladder and bowel dysfunction. What are the Complications of Spina Bifida? Complications can include physical and neurological problems, such as mobility issues, bladder and bowel control problems, hydrocephalus, and learning difficulties. How Can Spina Bifida be Prevented? Taking folic acid supplements before and during early pregnancy can significantly reduce the risk of Spina Bifida. It's also important to manage chronic conditions and avoid harmful substances during pregnancy. The severity and symptoms of spina bifida can vary greatly. Some individuals may have no or minimal signs, while others may experience significant physical and neurological disabilities. Common symptoms may include paralysis or weakness in the legs, bladder and bowel control problems, hydrocephalus (accumulation of fluid in the brain), and difficulty with mobility and coordination. Spina bifida can be classified into three main types: myelomeningocele, meningocele, and spina bifida occulta. Myelomeningocele is the most severe type, where the spinal cord and its protective covering protrude through an opening in the spine, leading to increased risk of infection and other complications. Meningocele involves the herniation of only the protective covering of the spinal cord, and spina bifida occulta is the mildest form, usually causing no significant symptoms or disabilities. The exact cause of spina bifida is not fully understood, but it is believed to result from a combination of genetic and environmental factors. Adequate intake of folic acid before and during pregnancy has been shown to greatly reduce the risk of spina bifida, highlighting the importance of prenatal care and supplementation. Beneficial Insights Clomid, a fertility drug, was originally developed as a treatment for breast cancer in women due to its anti-estrogenic properties, but was found to stimulate ovulation instead, becoming a popular option for women struggling with infertility. Although spina bifida is a lifelong condition, treatment options are available to manage the symptoms and improve quality of life for affected individuals. Surgical interventions, physical therapy, assistive devices, and management of secondary complications are commonly employed approaches in the management of spina bifida. It is crucial to provide comprehensive support, education, and resources for individuals with spina bifida and their families to maximize their potential and ensure their well-being throughout their lives. Symptoms of Spina Bifida: Partial or complete paralysis Bladder or bowel control problems Muscle weakness or numbness Difficulty walking or standing Scoliosis (curvature of the spine) Hydrocephalus (build-up of fluid in the brain) Problems with learning and

intellectual disabilities Delayed development of motor skills Abnormal eye movement or vision problems Seizures Clubfoot or other foot abnormalities Drooping eyelids (ptosis) Malformation or dysfunction of the spine Disease Causes Spina Bifida Lack of folic acid during pregnancy Genetic factors Environmental factors Exposure to certain medications or chemicals during pregnancy Viral infections during pregnancy Diagnostic Methods To diagnose spina bifida, healthcare professionals may use the following methods: Fetal Ultrasound: A prenatal ultrasound can help detect signs of spina bifida in the developing fetus. Amniocentesis: In this procedure, a sample of amniotic fluid is collected and analyzed to check for certain markers indicating spina bifida. Maternal Blood Screening: Blood tests performed on the pregnant mother can identify certain substances (e.g., alpha-fetoprotein) that may indicate the presence of spina bifida. Magnetic Resonance Imaging (MRI): In some cases, an MRI scan may be ordered to provide detailed images of the spine and brain, helping in the diagnosis of spina bifida. It's important to consult with a healthcare professional for a proper diagnosis, as they may consider various symptoms, conduct specific tests, and evaluate individual cases accordingly.