



Neural Tube Defects & The Importance Of Folic Acid

By

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Prevention of neural tube defects: Folic Acid

- The neural tube develops during the first 22-23 days of pregnancy.
- Folic acid has been shown by the Centers for Disease Control and Prevention to prevent up to 70 percent of neural tube defects.

Folic Acid

- The recommended daily serving of folic acid is 400 micrograms.

Where to find folic acid

- Fortified breakfast cereals with 100 percent of folic acid per serving.
- Multivitamins that contain of 100 percent (400 micrograms) of folic acid.
- Single folic acid vitamin.
- Foods with folate.

3. *Myelomeningocele*: Most severe type. Bulge on the spine does include nerves.



Impact of spina bifida

- Full or partial paralysis of legs and feet.
- Fluid on the brain (hydrocephalus).
- Loss of bladder and bowel control.
- Learning disabilities.

Three types of spina bifida

1. *Spina bifida occulta*: Most common type. Very few symptoms. Does not include a bulge on the spine.

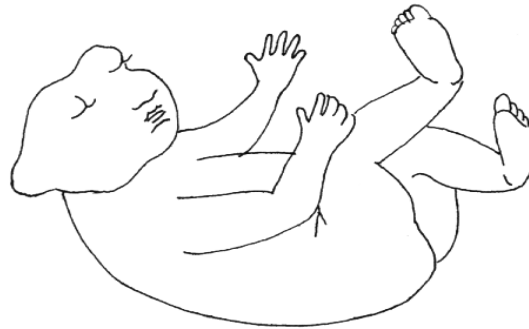


2. *Meningocele*: Most rare type. Bulge on the spine does not include nerves.



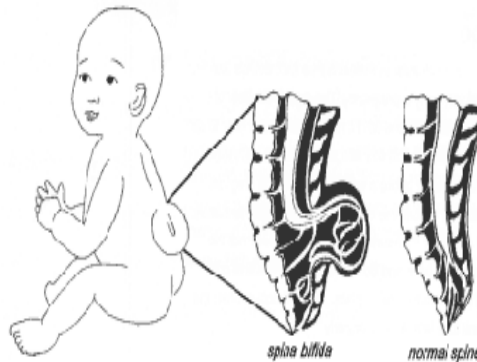
Anencephaly

- The neural tube fails to close properly at the base of the skull.



Spina Bifida

- The neural tube fails to close properly at the bottom of the spine.



Source: CDC, Preventing Neural Tube Birth Defects: A Prevention Model and Resource Guide.

overview

Neural Tube Defects

1. Normal formation.
2. Problems with formation:
 - a. Anencephaly.
 - b. Spina Bifida.
3. Prevention with folic.

Normal formation of the neural tube

- Normal development: The embryo's neural tube closes to form the brain and the spine.
- The neural tube forms from the ectoderm.

Problems with neural tube formation

- If the neural tube fails to close correctly, the baby will have a birth defect.