

# Free spina bifida case study sample

[Science](#), [Genetics](#)



Spina bifida is neural tube defects that are caused by ecological and hereditary factors that are not yet fully understood. There is no known cure yet for Spina Bifida condition, the damaged nerve tissue cannot be replaced. Some surgical interventions depend on the severity of the disease. In the worst case scenario, if the severe conditions are detected earlier through ultrasound, abortion is recommended.

Folate, also called folic acid is a B group vitamin that can prevent most neural tube defects. The recommended dose for the women who are planning to become expectant is 0.5 mg every day for a month before they conceive and during their first trimester of pregnancy. Mothers in high risk groups should take a higher dose.

The observational and intervention studies that includes controlled trials have shown that adequate consumption of folic acid can prevent up to 70% of the neural tube defects. Among the methods that can increase the folate intake is supplementation, dietary improvement and food fortification (Lachmann, Chaoui, Moratalla, Picciarelli, & Nicolaidis, 2011, p. 105). Dietary improvement has not been effective because it requires affordability, accessibility and behavior change which are not always easy.

Supplementation alone has not been fully effective since most of the pregnancies are unplanned. Fortifying of foods is highly effective and consistent intervention because it makes the acid more available to all ladies who can bear a child, without requiring a behavior change.

Further research on the treatment of Spina Bifida may help to unearth the genetics of the neural tube closure and help develop procedures that will improve clinical care, genetic counseling and treatment for the disease.

Health education about folic acid to the ladies will lead to making them put some conscious effort to increase their folate intake during pregnancy and prevent the disease occurring to their children.

Policy guidelines that would ensure more folate is added to the grain products will make the folate vitamin available to more women and further reduce the occurrence of that disease. When the Spina Bifida is detected earlier in pregnancy one of the medical intervention is abortion. That intervention may get support from the pro-choice and be opposed by the pro-lifers. For the development of an inclusive policy, both opinion matters and they may build a consensus on the contentious bits.

For the spin bifida prevention and intervention, there is no a single best approach and all the options should be applied in order to supplement each other. Further research should be done on the hereditary basis for the neural tube defects (Mertens, Pierre, 2012, p. A18). The insights that can be found on the genetic factors that make children more susceptible than others may lead to new discoveries of either prevention or treatments of the disease. Making more effective legislation on fortifying of more foods will have had all mothers access the folic acid even before conception, and this will help to minimize the occurrence of the condition. Health education to all mothers on the when and where to get the right amount of folates will help to make them more conscious of their intake and may be their behavioral change.

## **References**

Lachmann, R., Chaoui, R., Moratalla, J., Picciarelli, G., & Nicolaidis, K. H. (2011). Posterior brain in fetuses with open spina bifida at 11 to 13 weeks. *Prenatal diagnosis*, 31(1), 103-106.

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