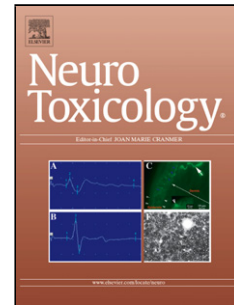


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Andrea Morrissey Kayla Collins Don MacDonald



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## **A Systematic Review of the Risks Factors Associated with the Onset and Natural Progression of Spina Bifida**

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### **Spina Bifida**

- Spina bifida (SB), a neural tube birth defect (NTD) occurring within the first four weeks of pregnancy and is the most common life disabling birth defect. In this neurological condition the spinal column fails to develop properly - one or more vertebrae do not form completely leaving a gap in the spine resulting in varying degrees of permanent damage to the spinal cord and nervous system.
- In Canada, the prevalence of SB in 1999 was 4 per 10,000 total births. The prevalence of SB varies temporally and geographically, and worldwide is 7 per 10,000 births.
- The aetiology of SB is unknown, but both genetic and environmental risk factors are considered important for its onset and progression.
- This study found maternal obesity; paternal exposure to Agent Orange and lack of folic acid intake during the peri-conceptual period as the dominant risk factors affecting the onset of SB.
- All the risk factors mentioned above are modifiable hence should be targeted as preventative strategies to reduce the burden of SB.

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