

## 7. RiboCeine and Male Fertility

Falana B, Adeleke O, Orenolu M, Osinubi A, Oyewopo A. [Effect of D-ribose-L-cysteine on aluminum induced testicular damage in male Sprague-Dawley rats.](#) *JBRA Assisted Reproduction*, 2017;21(2):94-100.

**Overview:** This study investigated the effects of Ribose-cysteine on aluminum induced testicular damage in male rats. There have been many studies that have been published on the toxic effects of aluminum on humans and animals. Over-exposure to aluminum has been shown to have damaging effects on testicular tissue affecting spermatogenesis (low sperm count, abnormal sperm morphology). Oxidative stress has been suggested as a cause for male reproductive testicular damage.

**Methods:** A total number of thirty-five (35) adult male Sprague-Dawley rats were divided into four groups (A-D). Group A (comprised five (5) rats) was designated the Control Group, received Physiological Saline; while groups B, C, and D (comprised ten (10) rats) were given 75 mg/kg, 150 mg/kg, and 300 mg/kg of body weight of aluminum chloride respectively for 39 days. At day 40, the aluminum-treated groups were subdivided into sub-groups (B1, C1, D1) comprising of five (5) rats each and received RiboCeine for twenty (20) days. Groups B, C and D remained on the normal dosage of aluminum chloride for three more weeks (59 days).  
**Results:** There was a boost in fertility for all groups that received RiboCeine B1, C1 and D1, with improvement in all andrological parameters (sperm count, motility, morphology, and testosterone). These positive observations may be due to RiboCeine's potent antioxidant properties.

**Conclusion:** RiboCeine treatment significantly attenuates aluminum-induced testicular toxicity in male Sprague-Dawley in rats.