

# Jordan University of Science and Technology

## A Systematic Review Evaluating the Effect of Vitamin B6 on Semen Quality.

**Authors:** Saleem Ali Banihani

**Abstract:** Purpose: This review systematically discusses and summarizes the effect of vitamin B6 on semen quality. Material and Method: To achieve this contribution, we searched the PubMed, Scopus, and Web of Science databases for English language papers from 1984 through 2017 using the key words "sperm" versus "Vitamin B6", "pyridoxine", and "pyridoxal". Also, the references from selected published papers were included, only if relevant. Result: To date, as revealed by rodent studies, high doses of vitamin B6 impair semen quality and sperm parameters. While in humans, it is suggested, but not yet directly approved, that seminal vitamin B6 levels may alter sperm quality (i.e., sperm quantity and quality), and that vitamin B6 deficiency may trigger the chemical toxicity to sperm (i.e., hyperhomocysteinemia, oxidative injury). Conclusion: The adverse effect of vitamin B6, when used at high doses, has been revealed in experimental animals, but not yet directly approved in humans. Consequently, in vitro studies on human ejaculate as well as clinical studies that investigate the direct effect of vitamin B6 on semen quality seem very significant.