

# Abstract

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## Relationship between zinc concentrations in seminal plasma and various sperm parameters.

Fuse H, Kazama T, Ohta S, Fujiuchi Y.

Department of Urology, Faculty of Medicine, Toyama Medical and Pharmaceutical University, Japan.

**OBJECTIVE AND METHODS:** The zinc concentration in seminal plasma from 98 infertile male patients and 8 fertile males was measured.

**RESULTS:** The zinc concentration of the seminal plasma in azoospermic and oligoasthenozoospermic patients was significantly lower than that in the other groups (each,  $p < 0.05$ ). The seminal plasma zinc concentration in asthenozoospermic males was significantly higher than that in any other group ( $p < 0.05$ ). There was a positive correlation of zinc concentration with sperm concentration ( $r = 0.33$ ,  $p < 0.05$ ) and with sperm motility ( $r = 0.22$ ,  $p < 0.05$ ), while there was no correlation with sperm morphology. A correlation between zinc concentration and plasma testosterone concentration was observed ( $r = 0.24$ ,  $p < 0.05$ ).

**CONCLUSION:** It is concluded that excessively high zinc concentration is apparently related to defective motility in asthenozoospermic patients, even though adequate seminal plasma content of the element is required for normal sperm function.

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