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## The activity of seminal creatine kinase is increased in the presence of pentoxifylline

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**Abstract:** Creatine kinase enzyme (CK) is indispensable for sperm function because it catalyses the regeneration of ATP from the chemical shuttle between creatine and creatine phosphate. Here, we measured CK activity of human spermatozoa in the presence of pentoxifylline (PF), a xanthine derivative drug primarily used to treat peripheral vascular function. Nine semen samples from different males were subjected to swim up, incubated with PF and tested for CK activity using the kinetic spectrophotometric method. The CK activity of spermatozoa significantly increased after addition of PF at 5 mM compared with the control (with 0.0 mM PF). Given that PF has been identified as a sperm motility enhancer and that CK is crucial for adequate sperm motion; then, the aptitude of PF to enhance sperm motility may be modulated by increasing CK activity.