

# Press release



## Sperm switch into top gear with the sun

### **A study has proved that an adequate supply of vitamin D gives sperm an advantage in terms of motility, speed and penetration force**

Veldhoven, 19 May 2011 (SRF) Men who top up on vitamin D in the sun or in a solarium, give their sperm an advantage in terms of motility, speed and penetration force. This was the conclusion of a study conducted by scientists from the University of Copenhagen investigating the role of vitamin D in human sperm production. The scientists tested the quality of sperm from 300 men chosen at random and a detailed analysis of sperm from a further 40 participants was performed in the laboratory. At the same time the level of vitamin D in their blood was measured. Almost half of the men had an insufficient level of vitamin D, below 50 nmol/l. The optimum level of vitamin D recommended by most experts is a minimum of 75 nmol/l. The sperm in men with higher vitamin D levels demonstrated significantly better performance in terms of motility and speed. In addition, the number of healthy sperm in men with insufficient vitamin D was considerably lower than in participants with normal levels. The ability to absorb calcium was also inhibited as well as the acrosome reaction which occurs during penetration of the female egg. Tests conducted in the laboratory resulted in similar findings.

The Sunlight Research Forum (SRF) is a non-profit organisation based in the Netherlands. Its aim is to make the latest medical and scientific evidence on the effects of moderate exposure to UV radiation available to the general public.

#### Study:

Martin Blomberg Jensen et al. (University Department of Growth and Reproduction, Rigshospitalet, Copenhagen, Denmark): "Vitamin D is positively associated with sperm motility and increases intracellular calcium in human spermatozoa"; in: Human Reproduction, 22 March 2011

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