# Semen quality of young men in southeast Spain down by 38% in the last decade

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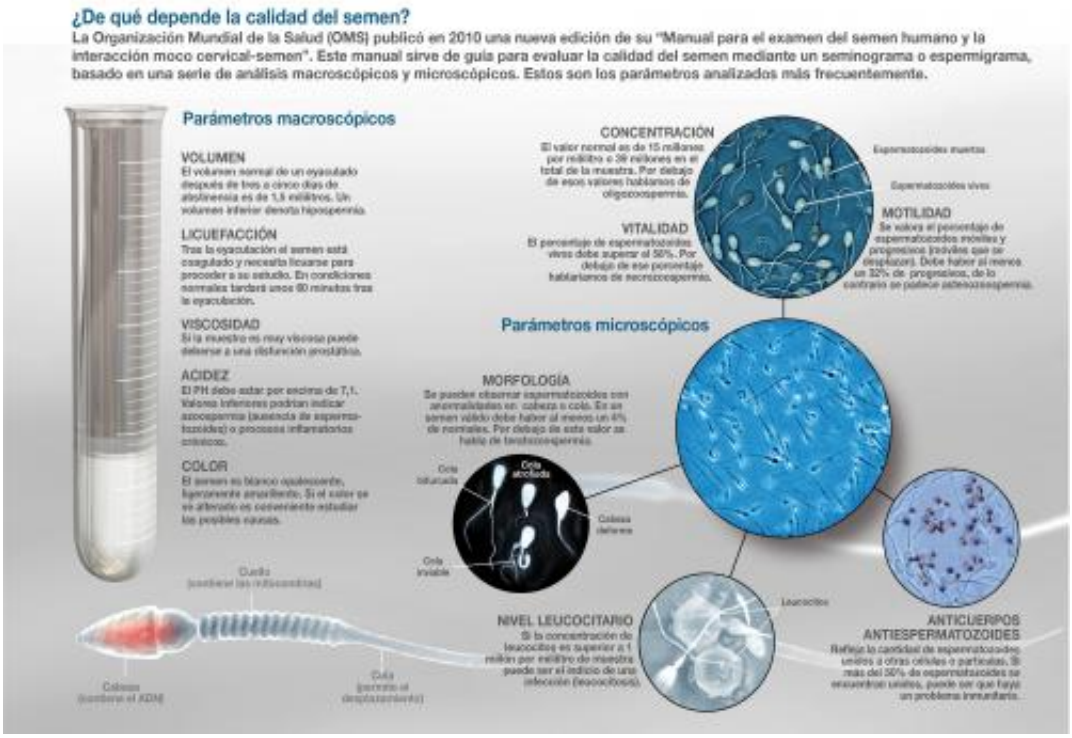


A concentration of lower than 40 million/ml makes it more difficult to conceive. Credit: SINC

The first comparative study on the evolution of sperm quality in young Spanish men over ten years, headed by researchers at the University of Murcia, reveals that spermatozoid concentration in men between 18 and 23 years in the regions of Murcia and Almeria has dropped by an annual average of 2%.

The suspicion that the semen of Spanish men is losing quality now takes force in the case of young men from Murcia and Almeria.

The *Andrology* journal has published a multidisciplinary and international study, headed by the Department of Preventative Medicine and Public Health of the University of Murcia (UMU), which demonstrates that "total sperm count and concentration has declined amongst young men in the south-east of Spain in the last decade." More specifically, the decrease amounts to 38%.

The lead researcher, Alberto Torres Cantero, explains to SINC that the study involved "comparing the results obtained by the Medical Research Centre of the University of Granada from the semen of 273 men from Almeria between 18 and 23 years, collected between 2001 and 2002, with those samples collected ten years later by 215 undergraduates from Murcia, all the while ensuring that both sample groups had the same age range and similar characteristics."

The analysis shows that the number of spermatozoids is significantly lower in the subjects from Murcia compared to the participants from Almeria. Average concentration goes from 72 million spermatozoids per millilitre in 2011 to 52 million/ml in 2011, according to Torres Cantero, professor of Preventative Medicine and Public Health at UMU.

Another relevant result is that "40% of those university students analysed in Murcia suffered from alterations in at least one semen parameter (morphology, mobility). Furthermore, all sperm indicators are below the norm in 15% of the sample," states Jaime Mendiola, professor at the UMU and first signatory of the study.

## Clinic trails are needed

"Before there were no well performed studies to detect a change in

sperm quality in Spain," explains Torres. Its main limitation is that it only makes reference to one geographic area and cannot be extrapolated: "We do not know if the same has occurred in other parts of Spain," outlines the researcher. There is little likelihood that the study will be carried out in other regions "because there are no similar semen quality studies in the young and healthy population."

Nonetheless, the fact that semen has worsened does not necessarily mean that the number of infertile men has increased. As Torres clarifies, this study measures semen quality and not fertility, "for which specific criteria established by the WHO are used."

Despite this, Mendiola feels that these data are worrying because "it has been verified in recognised studies that a concentration lower than 40 million/ml makes conception more difficult. If the rate of loss we have outlines continues, with an average decline in quality of 2% per year, the sperm of young men could reach this danger level of 40 million/ml in a very short space of time."

For this reason, the authors stress the urgency to promote "clinical trails that identify effective prevention actions for counteracting this negative trend via lifestyle changes."

"We believe that some prevention actions involving lifestyle improvements, such as a healthier diet, could increase sperm quality," outlines Alberto Torres. "But we still lack rigorous scientific information to propose them neither in the clinical field nor at a population level. If we could identify those actions, we could improve sperm quality."

**More information:** onlinelibrary.wiley.com/doi/10 … 012.00058.x/abstract

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