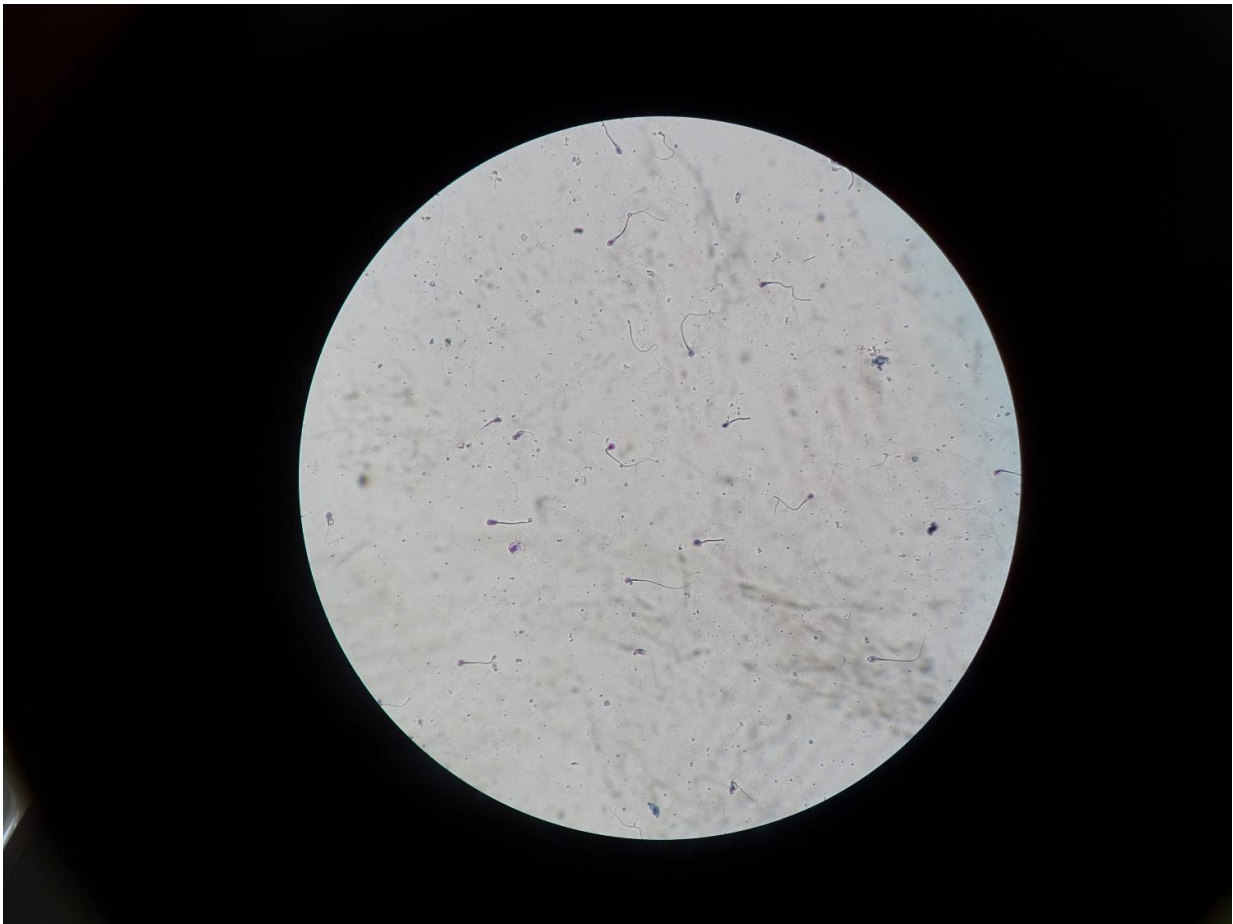


A healthy diet improves sperm quality and fecundability of couples

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Human sperm under a microscope. Credit: ©URV

Infertility is a global public health issue and affects 15% of all couples

of reproductive age. Male factors, including decreased sperm quality, are responsible for approximately 25% of these cases. Researchers at the Universitat Rovira i Virgili and the Pere i Virgili Health Research Institute (Tarragona-Spain) have conducted the first systematic review of all observational studies on sperm quality and male fecundability and their relationship with diet, food and nutrient consumption

Nowadays, in order to improve [sperm quality](#) and fertility changes, many fertility clinics recommend simple lifestyle changes such as increased physical activity, cognitive behavioural therapy or yoga to reduce stress, give advice on how to reduce alcohol and caffeine intake and provide lists of dietary recommendations. However, there is a lack of a proven scientific evidence regarding the role of [diet](#) in determining sperm parameters.

Researchers at the Human Nutrition Unit of the Universitat Rovira i Virgili (URV) and the Pere i Virgili Health Research Institute, (Tarragona-Spain) who are also members of the Ciberobn network of the Carlos III Health Institute, have conducted the first [systematic review](#) of all [observational studies](#) on sperm quality and male fecundability and their relationship with diet, food and nutrient consumption.

The results indicate that low sperm quality parameters are inversely associated with healthy diets rich in certain nutrients such as [omega-3 fatty acids](#), certain antioxidants (vitamin E, vitamin C, β -carotene, selenium, zinc, cryptoxanthin and lycopene), other vitamins (vitamin D and folate) and low saturated fatty acids and trans-fatty acids. Fish, shellfish, seafood, poultry, cereals, vegetables and fruits, low-fat dairy and skimmed milk were positively associated with several sperm quality parameters. In contrast, diets rich in processed meat, soy foods, potatoes, full-fat dairy and total dairy products, cheese, coffee, alcohol, sugar-sweetened beverages and sweets have been associated with lower-quality sperm in some studies. A high intake of alcohol, caffeine, red meat and

processed meat by males has a negative influence on the chance of pregnancy or fertilization rates of their partners.

According to the researchers, their review has provided a comprehensive overview of existing high-quality research into the effect of diet and the consumption of different foods and nutrients on fecundability and male fertility so that safer and more effective [dietary recommendations](#) can be made in the future.

These results highlight the fact that adherence to a healthy diet, e.g. the Mediterranean diet, by men could significantly improve their sperm quality and the fecundity of their partners.

More information: Albert Salas-Huetos et al, Dietary patterns, foods and nutrients in male fertility parameters and fecundability: a systematic review of observational studies, *Human Reproduction Update* (2017).
[DOI: 10.1093/humupd/dmx006](https://doi.org/10.1093/humupd/dmx006)

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