

# Cola and unhealthy lifestyle lower sperm count

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(PhysOrg.com) -- A Danish study suggests drinking a lot of cola regularly could men's lower sperm count by almost 30 percent. The culprit does not appear to be caffeine, since coffee did not have the same effect, even though it contains even more caffeine than cola.

Leader of the research team, Professor Tina Kold Jensen of the University Department of Growth and Reproduction at the Rigshospitalet in Copenhagen, said the results of previous studies on the effect of [caffeine](#) on [male fertility](#) had been unclear, and the study participants had usually been carefully selected, often because they were infertile or about to undergo vasectomy. The current study included 2,554 young men and aimed to find out how the increasing consumption of soft drinks containing caffeine by young people in Denmark might affect male reproductive health.

The participants were recruited in the period 2001 to 2005 when they were having their compulsory physical examination to determine if they were fit for [military service](#). They were asked to complete a questionnaire about lifestyle and diet, including information on their intake of caffeine from various sources including [cola](#), and they also delivered a semen sample.

The results were that those with low to moderate total [caffeine intake](#) and cola consumption (up to 800 mg/day caffeine and up to 14 x 0.5 liter bottles of cola per week) showed no link with semen quality in terms of sperm concentration and sperm count, while those with high intake of total caffeine and/or cola (over 800 mg/day and more than 14 x 0.5 liter bottles/week) had reduced sperm count and concentration, but this was only significant for the cola intake. Those with low to moderate consumption (the vast majority) had higher sperm counts (average 56 million/ml) than those who drank cola. In the 93 men who drank a liter (a quart) or more a day the sperm counts were much lower (35 million/ml). Even the lower count is within the World Health Organisation's reported normal limits, but a reduced sperm count increases the risk of eventually becoming infertile.

The study found no link between caffeine in tea or coffee and the lowered sperm count, which meant the effect may be produced by other ingredients in the [soft drinks](#), or other factors related to lifestyle, but the authors said they could not “exclude the possibility of a threshold above which cola, and possibly caffeine, negatively affects semen quality”. The researchers also found that those who drank cola had unhealthier lifestyles, ate less fruit and vegetables, and more fast foods than those who did not. It is therefore unclear if one or more of the cola's ingredients, the unhealthy lifestyle, poor diet or a combination of these factors is responsible for the reduced sperm quality.

The study findings are published in the *American Journal of*

*Epidemiology.*

**More information:** Tina Kold Jensen et al., Caffeine Intake and Semen Quality in a Population of 2,554 Young Danish Men, *American Journal of Epidemiology*, [doi:10.1093/aje/kwq007](https://doi.org/10.1093/aje/kwq007)

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