

# Marijuana consumption and its association with reproductive problems

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## Dear Editor:

After reading the interesting article recently published in your prestigious journal on the prevalence of marijuana use in school adolescents (1) in which it is observed, among other findings: a) that 4.3% of more than 80 thousand adolescents claim to have consumed marijuana during the last 30 days; b) that males are more consumers (5.2%) than females (3.5%), and c) that this consumption increases with age, while at age 12 0.5% of respondents consume, at age 13 it was 1.9%, at age 14 3.7%, at age 15 4.5%, at age 16 5.5%, at age 17 7.2% and at age 18 it rises to 7.9%, it is impossible not to associate these findings with the potential problems that marijuana consumption could bring in adult life, mainly when these adolescents want to become parents.

Marijuana consumption is a major health problem worldwide and there is evidence on the negative consequences of its use, including atrial fibrillation, acute coronary syndromes, ventricular tachycardia and sudden death (2), impaired cognitive functioning (3), respiratory complications (4) and there is even a strong association between its use and the development of mental health problems and psychotic disorders (5, 6). In addition, although the most common route of administration is inhalation through rolled cigarettes or pipes, with which more than 50% of delta-9-tetrahydrocannabinol is absorbed, there are alternative routes of use such as its consumption is mixed with food (7).

On the other hand, it is not illogical to suppose that, although its use is becoming more common every day, with the advent of its approval as a legal recreational and medicinal drug in the country, due to the important

medical and economic potentials of the industry in relation to Cannabis, perhaps, the number of consumers could increase, as has been observed in other places (8).

Most of the consumers surveyed in the article are men (1) and surely sperm production -gametogenesis- will be negatively affected. Recently, an article in which sperm parameters were evaluated in regular users of marijuana cigarettes, evidenced that its consumption negatively affects progressive motility, normal morphology, and total sperm concentration, and even sperm concentration in relation to the frequency of marijuana cigarette consumption (9). In addition, it has been reported that Cannabis use in men of reproductive age causes alterations in the sperm DNA methylation pattern (10).

Therefore, based on the fact that marijuana consumption is increasing, increases with age and will surely increase in the coming years, more studies are needed to determine the effect of marijuana consumption for both medicinal and recreational purposes on sperm parameters and human fertility, specifically on male fertility, in order to avoid possible dramatic consequences on human reproduction in the near future.

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