

CIGARETTE SMOKING AND REPRODUCTIVE FUNCTION

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A strong body of evidence indicates that the negative effect of cigarette smoking on fertility comprises fairly every system involved in the reproductive process. The goal of this presentation is to perform a systematic review of the literature on the relationship between cigarette smoking and reproductive function and the possible mechanisms involved in the deleterious effects observed.

The impact of cigarette smoking on ovarian reserve is clearly evidenced by younger age at menopause of smokers. Tobacco compounds' impairment of the process of ovarian follicle maturation is expressed by worse in-vitro fertilization parameters in cycles performed on women with smoking habits. Also, uterine receptiveness and tubal function are significantly altered by the smoking habit.

In men, cigarette smoking reduces sperm production, increases oxidative stress, and DNA damage. Spermatozoa from smokers have reduced fertilizing capacity, and embryos display lower implantation rates.

Data obtained in the last few years have pointed to the negative reproductive consequences of in-utero exposure to tobacco constituents in male and female. Therefore, the smoking pregnant woman must be aware of the risk of compromising her progeny's reproductive function. Couples at reproductive age should be strongly discouraged to smoke.