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Spices, oils, and teas: A comprehensive review exploring impact on female fertility

Background
For generations, various ingredients have been incorporated into diets to improve health. While numerous studies have examined their effects on diseases, research on their impact on female fertility is limited. This review evaluates the relationship between specific spices, oils, and teas and female fertility.
Methods
A literature search was conducted using PubMed, Cochrane, Embase, and Google Scholar. Search terms targeted dietary items relevant to fertility. Of 15,909 initial articles, only 30 met inclusion criteria: English-language studies from January 2012–May 2024, including randomized controlled trials, case controls, cohorts, case series, case reports, systematic reviews, and meta-analyses. Studies before 2012, non-English, or non-relevant were excluded.
Results
Among the dietary items studied, 18.6% (11/59) of spices, 22.2% (4/18) of oils, and 6.7% (1/15) of teas were examined for effects on female fertility. Some spices negatively affected fertility in a dose-dependent manner, including mugwort, coriander, white wormwood, monosodium glutamate, and ginkgo biloba. Conversely, dong quai, clove, cinnamon, turmeric, sage, and aloe vera showed positive effects. Among oils, evening primrose oil, extra virgin olive oil, and sesame oil demonstrated benefits, while coconut oil showed a dose-dependent negative effect. Green tea had a beneficial impact on reproductive health.
Conclusion
Though human studies are limited, animal models suggest that some spices, oils, and teas may negatively affect female fertility by disrupting the hypothalamic-pituitary-gonadal axis or altering reproductive organ structure. Conversely, certain dietary items may enhance fertility. Awareness of consumption patterns is essential, as specific ingredients may either hinder or support reproductive health.