

## **FERTILITY PRESERVATION FOR PREPUBESCENT TRANSGENDER MALES: APPLICATION OF OVARIAN TISSUE CRYOPRESERVATION AND IN VITRO MATURATION**

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### **Abstract Body**

Gender-affirming treatments, including suppression of pubertal changes, hormonal management, and surgical treatment, allow many transgender individuals to assert their preferred gender. However, many of these treatments may have irreversible impacts on future fertility, especially gonadectomy. Current fertility preservation options for transgender males include ovarian hyperstimulation and subsequent oocyte retrieval, with oocyte or embryo cryopreservation. With increasing numbers of transgender children and adolescents beginning gender-affirming therapies prior to endogenous puberty, new considerations for fertility preservation are warranted. This review examines the emerging research on the feasibility of ovarian tissue cryopreservation (OTC) and in vitro oocyte maturation (IVM) for fertility preservation of prepubescent transgender males. Ovarian tissue cryopreservation involves removal of cortical tissue or the entire ovary, cryopreservation, and future auto-transplantation within orthotopic or heterotopic locations. This procedure is limited in its application to transmen in that transplantation resumes female hormone activity. However, OTC coupled with IVM of primordial follicles would allow transmen fertility preservation without the need of endogenous female puberty or female hormones, transvaginal ultrasound, and pelvic examination required for ovarian hyperstimulation and oocyte retrieval. OTC with both autotransplantation and IVM have resulted in live births. While these procedures are currently not standard of care, are invasive, and expensive, they may be the best option for fertility preservation in prepubescent transgender males.