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## **Landscape of Methods for Male Contraception.**

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The only reversible male contraceptive method is the male condom. Although condoms also protect against sexually transmitted infections, the failure rate is relatively high and the method is not acceptable to many men. Reversible contraception can be achieved by giving exogenous hormones that suppress secretion of hypothalamic-pituitary hormones that stimulate testicular testosterone production. Taking a progestin can suppress testicular testosterone and stop sperm production. Exogenous testosterone is required to replace normal blood levels to maintain other androgen-dependent functions. The challenge that has prevented development of a male pill is that oral testosterone is cleared very rapidly, requiring multiple doses per day. Successful approaches have used progestins (oral, injectable or implants) to achieve sperm suppression consistent with contraceptive effectiveness (sperm <1 million/ml) and testosterone delivered by injections, implants or transdermal gels to maintain all other functions. New progestogenic androgens on the horizon may provide contraception with a single agent that can be delivered orally or as an injectable formulation. Non-hormonal approaches that inhibit sperm production or sperm function are in the pre-clinical phase of research. New contraceptive options for men are needed and work continues in this area on a variety of approaches to achieve that goal.