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# Permanent Contraception

#### AT A GLANCE

This page includes recommendations for health care providers that address provision and use of permanent contraception. This information comes from the 2024 U.S. Selected Practice Recommendations for Contraceptive Use (U.S. SPR).

## Overview

Tubal surgery (including laparoscopic and abdominal approaches) and vasectomy are methods of permanent contraception that are available in the United States. Approximately 0.5 out of 100 tubal surgery users will become pregnant in the first year of typical use; the typical failure rate for vasectomy is 0.15 per 100 users in the first year of typical use. Because these methods are intended to be irreversible, patients should be appropriately counseled about the permanency of these methods and the availability of highly effective, long-acting reversible methods of contraception. Permanent contraception does not protect against STIs, including HIV infection, and patients using permanent contraception should be counseled that consistent and correct use of external (male) latex condoms reduces the risk for STIs, including HIV infection. Use of internal (female) condoms can provide protection from STIs, including HIV infection, although data are limited. Patients also should be counseled that PrEP, when taken as prescribed, is highly effective for preventing HIV infection.

# When tubal surgery is reliable for contraception

• A patient may rely on permanent contraception immediately after laparoscopic and abdominal approaches. No additional contraceptive protection is needed.

### Comments and Evidence Summary

Pregnancy risk with at least 10 years of follow-up has been studied among women who received laparoscopic and abdominal sterilizations. [363], Although these methods are highly effective, pregnancies can occur many years after the procedure, and the risk for pregnancy is higher among younger women. [364], [365]

# When vasectomy is reliable for contraception and other post-procedure recommendations

- Semen analysis should be performed 8–16 weeks after a vasectomy to ensure the procedure was successful.
- The patient should be advised that they should abstain from sexual intercourse or use barrier methods (e.g., condoms) until they have confirmation of vasectomy success by postvasectomy semen analysis.
- The patient should refrain from ejaculation for approximately 1 week after the vasectomy to allow for healing of surgical sites and, after certain methods of vasectomy, occlusion of the vas.

#### Comments and Evidence Summary

The Vasectomy Guideline Panel of the American Urological Association performed a systematic review of key issues concerning the practice of vasectomy. [366] All English-language publications on vasectomy published during 1949–2011 were reviewed. For more information, see the American Urological Association's Vasectomy: AUA Guideline (<a href="https://www.auanet.org/guidelines-and-quality/guidelines/vasectomy-guideline">https://www.auanet.org/guidelines-and-quality/guidelines/vasectomy-guideline</a> [2] ).

Motile sperm disappear within a few weeks after vasectomy. [367-370] The time to azoospermia varies widely in different studies; however, by 12 weeks after the vasectomy, 80% of men have azoospermia, and almost all others have rare nonmotile sperm (defined as  $\leq$ 100,000 nonmotile sperm per mL). [366] The number of ejaculations after vasectomy is not a reliable indicator of when azoospermia or rare nonmotile sperm will be achieved. When azoospermia or rare nonmotile sperm has been achieved, patients can rely on the vasectomy for contraception, although not with 100% certainty. The risk for pregnancy after a man has achieved postvasectomy azoospermia is approximately one in 2,000. [371-375]

A median of 78% (range = 33%–100% across studies) of men return for a single postvasectomy semen analysis. In the largest cohorts that appear typical of North American vasectomy practice, approximately two thirds of men (55%–71%) return for at least one postvasectomy semen analysis. Assigning men an appointment after their vasectomy might improve compliance with follow-up.  $\frac{[381]}{[371]}$ 

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National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP); Division of Reproductive Health