



When is Vasectomy the best and when is it the only choice for family planning? Is vasectomy reversible? Gynecological and Andrological point of view

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## **Infertility and Contraception**

**Gynecologist** - female infertility

and contraception

Andrologist - male infertility

and contraception



## Female contraception



Majority of females tolerate very well most of the available forms of contraception<sup>1,2,3,4</sup>.

All those methods of family planning have their own unique advantages which most women can benefit from.

For example hormones control the menstrual cycle and make it hurt less whereas condoms protect against sexually transmitted diseases. Sometimes, however, doctors especially gynecologists face the problem of choosing the method of contraception.



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## Hormonal contraception <sup>6.7.</sup>

#### Form

#### **Possible Adverse**

#### effects

#### **Contraindications**

Combination pill Progestin-only pill Extended-cycle pill Vaginal ring Patch Implant Injectable Contraceptive Emergency contraception	<ul> <li>Headache,</li> <li>Dizziness,</li> <li>Breast tenderness,</li> <li>Nausea,</li> <li>Breakthrough bleeding,</li> <li>Decreased libido,</li> <li>Mood swings,</li> <li>Weight gain,</li> <li>Vaginal discharge,</li> <li>Increase in blood pressure,</li> <li>Increase in the risk of developing cervical cancer,</li> <li>Acne,</li> <li>Cardiovascular risks 8.9.)</li> </ul>	<ul> <li>Depression</li> <li>Diabetes with complications</li> <li>Epilepsy treated with medications that induce hepatic enzymes</li> <li>History of VTE/pulmonary embolism</li> <li>Migraine headaches with aura or Headaches with focal neurologic symptoms</li> <li>Poorly controlled hypertension</li> <li>Rheumatoid arthritis (in patients taking immunosuppressants)</li> <li>Smoking and age older than 35 years</li> <li>Stroke</li> <li>Systemic lupus erythematosus with antiphospholipid antibodies</li> <li>Carcinoma of the breast (known or suspected) or personal history</li> <li>of breast cancer</li> <li>Cerebral vascular or coronary artery disease (current or history of)</li> <li>Cholestatic jaundice of pregnancy or jaundice with previous oral contraceptive pill use</li> <li>Hepatic adenomas or carcinoma</li> <li>Hypersensitivity to any component in oral contraceptive pills</li> <li>Major surgery with prolonged immobilization</li> <li>Pregnancy (known or suspected)</li> <li>Undiagnosed abnormal genital bleeding</li> <li>Valvular heart disease with complications</li> <li>Benign liver tumors,</li> </ul>
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Methods of contraception, their common side effects and contraindications which may cause lack of acceptance -

## **Barrier Methods of Birth Control**

Form	Possible Adverse	Contraindications	
	effects		
<ul> <li>Diaphragm and Cervical Cap</li> <li>Male and Female condom</li> <li>Sponge</li> <li>Spermicides</li> </ul>	<ul> <li>Allergic reaction to latex, polyurethane or spermicides,</li> <li>Vaginitis</li> <li>High failure rate</li> </ul>	Allergy to	





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## **IUD (Intra Uterine Device)**

Form	Possible Adverse	Contraindications
	effects	
Metal (copper, silver, gold)	<ul> <li>Heavy menstrual bleeding</li> <li>Anemia</li> <li>Dislocation (pain and bleeding)</li> </ul>	<ul> <li>Pregnancy</li> <li>Significantly distorted uterine anatomy</li> <li>Unexplained vaginal bleeding</li> <li>Gestational trophoblastic disease</li> <li>Ongoing pelvic infection</li> </ul>





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### **IUD** hormonal

Form	Possible Adverse	Contraindications
	effects	
Hormonal IUD (Levonorgestrel)	<ul> <li>General hormonal</li> <li>Dislocation (pain and bleeding)</li> </ul>	<ul> <li>Pregnancy</li> <li>Significantly distorted uterine anatomy</li> <li>Unexplained vaginal bleeding</li> <li>Gestational trophoblastic disease</li> <li>Ongoing pelvic infection</li> <li>General hormonal</li> </ul>





Methods of contraception, their common side effects and contraindications which may cause lack of acceptance -

### Sterilization

Form	Possible Adverse	Contraindications
	effects	
<ul><li>Tubal ligation,</li><li>Essure,</li></ul>	<ul> <li>Procedure risk,</li> <li>Infection,</li> <li>hematoma,</li> </ul>	<ul> <li>Contraindications to general anesthesia</li> <li>Urogenital infection</li> </ul>





Methods of contraception, their common side effects and contraindications which may cause lack of acceptance

### Vasectomy

Form	Possible Adverse effects	Contraindications
<ul> <li>Traditional vasectomy</li> <li>No Scalpel vasectomy</li> </ul>	<ul> <li>Bleeding into the scrotum</li> <li>Infection.</li> <li>Epididymitis.</li> <li>Sperm granuloma.</li> <li>Persistent pain.</li> </ul>	<ul> <li>Contraindications to general/local anesthesia</li> <li>Scrotal skin infection,</li> <li>Active sexually transmitted disease,</li> <li>Balanitis,</li> <li>Epididymitis</li> <li>Ororchitis;</li> <li>Increased risk of postoperative infection</li> <li>Systemic infection</li> <li>Intrascrotal mass</li> </ul>



Nowadays it is usually a woman who carries the burden of risks of complications related to contraception.



Some women have poor tolerance, complications, adverse family history or simply do not accept it. An alternative may be contraception for men – **vasectomy**.

The perfect family planning method would be cheap, durable, would not require regular maintenance, would have a low complication rate and would be reversible.





- cheap
- durable
- does not require regular maintenance
- has a low complication rate.

 also, thanks to advances in modern microsurgical procedures (reversal vasectomy) and availability of In Vitro Fertilization Clinics (direct sperm retrieval from testicles), vasectomy is reversible.





Simply speaking, vasectomy consists in blocking supply of sperms produced in testicles into ejaculate. Ejaculate is produced in the prostate gland and seminal vesicles. Sperm production as such never stops after vasectomy. Ejaculate volume is almost the same because prostate and seminal vesicles are located high above the site blocked by vasectomy.





Example: Female age 33, married, with 2 children

She is allergic to latex contained in condoms.

After contact with a condom the patient has recurrent allergic irritation followed by fungal infections. She badly tolerates hormonal contraception.

Attempts to apply various forms of hormonal contraception resulted in a severe migraine with aura, loss of libido (very common in women after the age of 30), depressed mood, swollen legs.

Trials of Intra Uterine Device led to anemia due to heavy bleeding intensified by presence of fibroids.

The patient does not accept sterilization (does not want surgery on the fallopian tubes). The woman is desperately looking for a suitable method of contraception.





As a gynecologist I have quite often met such patients..

..and I used to be frustrated.

It was difficult to propose a suitable solution which would give good results without side effects and would be accepted by such patients.



#### Our Flags







### Poland

### Indonesia





My attitude changed after I started to deal with infertility and attended intensive hands-on IVF training.

I realized that fallopian tube or vas pathology (lack of patency) as a cause of fertility problems are easily solved in Infertility Clinics.

This drew my attention to vasectomy.

I realized that vasectomy is, to a certain extent, similar to Intra Uterine Device. IUD is "legal" in my country.

Both require specialized medical professionals to be applied.

Both require the same professional service to reverse (remove).

In both methods reversibility does not reach a 100% success rate. One of the complications of IUD is inflammation leading to fallopian tubes closure and infertility.





Against this background, I have added another weapon to the arsenal of **female** contraception

### vasectomy of her partner







"Doctor, what can I do?" "You can convince your man to have his vasectomy for you - as an act of love", I said to this 33-year-old lady. And she did



## In Poland



In Poland<sup>5</sup> the most frequent form of contraception is a condom, used by approximately 50% of couples. Oral contraception is used by 20-25% sexually active women (40% in big cities and 10% in small towns and villages).

- Coitus Interruptus is used by 20% of couples.
- IUD by 5% of women.
- Tubal ligation and vasectomy are so rare that they haven't even been included it these statistics.





Common motivation to perform vasectomy is the desire to relieve the partner of the burden of using other forms of contraception.

Quite frequently, it also includes hope to improve the libido of the partner, who, due to hormonal contraception,

experiences mood swings and decrease in her sex drive.





We have little reliable scientific knowledge regarding social consequences of using individual methods of contraception.

An article in BMJ<sup>10.</sup> casts some light on this phenomenon.

Over 36 years, a large cohort of female users of oral contraception was observed and compared with a group of women who did not use contraception.

That work included only morbidity and mortality.

The results presented in the article showed that women using hormonal contraception more often die in accidents or as victims of violence.

These results have not reached statistical significance and require confirmation, therefore we do not know whether they can be considered to be reliable.

It easily comes to mind that deaths in accidents can be considered in terms of carelessness and deaths as a result of violence can be considered in terms of coming into conflict with the people around.

Carelessness and conflicts with people could be the result of mood swings, decreased libido and irritability, which are a natural, frequent consequence of using hormonal contraception.

The work undoubtedly signals a problem and provides foundations and prospects for further research on the subject.





Among different methods of sterilization, vasectomy<sup>11, 12,</sup> has an advantage over tubal ligation in that it has a lower failure rate and that it is much less invasive.

failure to vasectomy can at the most cause **unwanted pregnancy** failure to tubal ligation can at the most cause **death** That is why vasectomy is worth considering at least in otherwise infrequent cases of contraindications and presence of side effects of other family planning methods.





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(September 2014)

American Urological Association (AUA) Guideline: Vasectomy. Ira D. Sharlip, Arnold M. Belker, Stanton Honig, Michel Labrecque, Joel L. Marmar, Lawrence S. Ross, Jay I. Sandlow, David C. Sokal. Approved by the AUA Board of Directors May 2012. © 2012 by the American Urological Association.