Contraceptive Basket

Contraceptive Methods currently available in the Indian Public Health System

S.no	Types & Methods[1]	Mechanism of Action[2]/requirement	Benefits	Effects and limitations	Effectiveness of the method
Spacing Methods (Delaying pregnancy)					
1. Intra-Uterine Devices (IUD)[3]					
A.	**IUCD 380 A (10 year-long protection)**	Prevents fertilization: Copper ions decrease sperm motility and function, thereby preventing the sperms from reaching the ovum Prevents implantation: IUCD stimulates foreign body reaction in the endometrium that releases macrophages Requires pelvic examination before IUCD insertion Requires a skilled provider for both IUCD insertion and removal	• Effective immediately after insertion • Suitable for use by most women, including breastfeeding women • One time, cost effective procedure • No requirement of daily attention or special attention before sexual contact • No drug interaction • May help protect against endometrial and cervical cancer • Return of fertility is immediate	**P:** Period related problems or pregnancy symptoms **A:** Abdominal pain or pain during sexual contact **I:** Infections or unusual vaginal discharge **N:** Not feeling well, fever, chills **S:** String problems Usually subside with time and/or symptomatic treatment • Does not protect against Reproductive Tract Infections (RTI)/ Sexually Transmitted Infections (STI) and HIV infection	**Perfect use (Perfect use of a contraceptive method is when it is used correctly all the time)** **Typical use (what generally happens in real life. It takes into account human error)** <1 pregnancy per 100 women (6 per 1,000 women with perfect use of IUD, and 8 per 1,000 women with typical use)
B.	**IUCD 375 (5 year-long protection)**				
2. Oral Contraceptive Pills (OCPs) - highly effective when taken correctly and consistently					
Hormonal					
A.	**Combined Oral Contraceptive (COC) (The available COC pills in the public sector is Mala-N)**	Prevents release of eggs from ovaries (ovulation) by suppressing follicle stimulating hormone (FSH), and Luteinizing hormone (LH), causing thinning of uterine lining & thickening cervical secretions, making it harder for the sperm to reach an egg. Contain low doses of the hormones, progestin and estrogen. Taken daily, irrespective of sexual contact	• Safe and effective • Provides protection against endometrial and ovarian cancer, • Prevents iron deficiency • Helps with PCOS, endometriosis • Return of fertility is immediate	• Cannot be used by breastfeeding women till 6 months • Bleeding changes (irregular bleeding, no monthly bleeding, etc) • Nausea, vomiting, headache • Weight changes, breast tenderness, acne • Mood changes or changes in sex drive These effects are harmless, temporary and subside gradually	Perfect use: 0.3 pregnancy /100 women Typical use: 8 pregnancy /100 women

B.	**Progestin Only Pill (POP), also called minipills**	Thickens cervical mucous (this blocks sperm from meeting an egg) and disrupts the menstrual cycle, including preventing the release of eggs from the ovaries (ovulation) Contain low dose of the progestin hormone. Taken daily, irrespective of sexual contact.	• Safe and effective, even forbreastfeeding women • Can be started in breast feeding women earlier than 6 weeks. • Decreases risk of ectopic pregnancy • Return of fertility is immediate	• Irregular bleeding/amenorrhea • Nausea, headache, dizziness • Mood changes/changes in sex drive • Breast tenderness • Abdominal pain These effects are harmless, temporary and subside gradually Doctor should be consulted before starting POP as it is contraindicated in certain health conditions	Perfect use • Breastfeeding women: 0.3 pregnancy/100 women • Non-breastfeeding women: 0.9 pregnancy/100 women Typical use • Breastfeeding women: 1 pregnancy/100 women • Non-breastfeeding women: 3-10 pregnancy/100 women
Non Hormonal					
C.	**Centchroman (Ormeloxifene) also called Chhaya**	It causes an asynchrony in the menstrual cycle between ovulation and the development of the uterine lining, thereby creating an environment that when fertilization occurs, zygote implantation is not possible Non-steroidal, non-hormonal	• Safe for breastfeeding women • It makes the periods lighter and can help anemic women • Can be used safely in conditions where hormonal contraceptives are not advised • Decreases the risk of ectopic pregnancy • Return of fertility is immediate	• Prolongation of menstruation cycle. It occurs in 8% cases usually in first 3 months	Perfect use: 1-2 pregnancy per 100 women following one year of perfect use
3. Injectable contraceptive					
	Medroxy Progesterone Acetate (MPA: Synthetic hormones resembling the natural female hormone, Progesterone) Also known as Antara	Thickens cervical mucous to block sperm and egg from meeting and prevents ovulation To be taken every three months	• No interference with sexual contact • Can be used by women of any age or parity • No effect on quantity and quality of breast milk Can be used in immediate postpartum (non-breastfeeding) and at 6 weeks (breastfeeding and Post-abortion • Very effective and reversible method • Decreases menstrual cramps, menorrhagia • Prevents or improves anaemia • Protects against endometrial & ovarian cancer	• In first 3 months: Irregular bleeding/prolonged bleeding • Within 1 year: Amenorrhea sets in These changes are due to the effect of progesterone, hence are harmless. • Return of fertility is 7-10 months from date of last injection	Perfect use: 1 pregnancy per 100 women using monthly injectables over the first year Typical use: 3 pregnancies per 100 women using monthly injectables over the first year

			• Prevents uterine tumors (Fibroids) • Reduces the incidence of symptomatic pelvic inflammatory disease (PID) • Decreases benign breast disease and ovarian cyst • Reduces the symptoms of endometriosis & sickle-cell crises		
4	**Male Condoms (also known as Nirodh, rubbers, umbrellas)**	Sheaths, or coverings, made of thin latex (rubber), polyurethane or polyisoprene, that fit over a man's erect penis. Forms a barrier to prevent sperm and egg from meeting	• Only method that provides protection from pregnancy and sexually transmitted infections (STIs) - *those spread by discharge* such as HIV, ggonorrhoea, and chlamydia, and *those spread by skin-to-skin contact*, such as herpes and human papillomavirus • Return of fertility is immediate	• A condom must not be used more than once. A new one needs to be used for every sexual contact.	Perfect use: 2 pregnancies per 100 women Typical use: 13 pregnancies per 100 women
Permanent/Limiting Method					
5. **Sterilisation**[4]					
A.	**Tubectomy / Tubal Ligation (Female)**	Fallopian tubes are cut or blocked either through Minilap (small incision in the abdomen where tubes are brought to the incision) or laparoscopically (long, thin tube inserted into the abdomen and fallopian tubes are accessed through the laparoscope through a small incision in the abdomen). Eggs released from the ovaries cannot move down the tubes, and so they do not meet sperm. It is a permanent method	• Permanent surgical contraception for women • No worries about getting pregnant and using any other method again • Fertility does not return	• Does not protect against sexually transmitted infections • Recovery period is 7-10 days • Invasive procedure with small risk of complications viz., internal bleeding, infection or damage to the other organs. • Reversal is not possible	<1 pregnancy per 100 women over the first year after the sterilization procedure Effectiveness varies slightly depending on how the tubes are blocked, but pregnancy rates are low with all techniques
B.	**Vasectomy (Male) No-Scalpel Vasectomy (NSV)**	A small incision is made in the scrotum to reach the vas deferens (the tubes that carry sperms) and the cut ends are blocked by tying or applying heat (cauterization) Keeps sperm out of ejaculated semen. Semen is ejaculated	• One of the most effective and convenient methods • NSV is a more medically advanced procedure- is less invasive, less time consuming (15 minutes) and easier, in comparison to tubectomy.	• Does not protect against sexually transmitted infections. • Reversal is rare, complicated and often unsuccessful. • Secondary contraception needs to be adopted for at	<1 pregnancy per 100 among partners of sterilised men

		normally, but it cannot cause pregnancy. It is a permanent method	• Recovery period is 24-48 hours. In majority cases, the person can return to work immediately. • Does not affect male sexual performance. • Has fewer side effects and complications than many methods for women • Fertility does not return	least 8 to 12 weeks after the procedure.	
Emergency Contraceptive (Post-Coital Contraceptive)					
6	**Levonor-gestrel Emergency Contraceptive Pill (ECP) or Ezy Pills, also known as the morning-after pill**	A progestin-only pill. Prevents pregnancy in emergency situation (unprotected /accidental sexual contact). To be taken within 72 hours as a single dose (1.5 mg). ECPs interfere with ovulation/fertilization/implantation depending on the phase of the menstrual cycle of the woman it is consumed	• Safe for all women, even for those who cannot use regular hormonal contraceptives, no known health risks • Can be taken at any time during the monthly cycle • A physical examination is not required • Return of fertility is immediate	• Nausea • Vomiting • Emergency contraceptive pills do not provide ongoing protection against pregnancy. • Not appropriate as a regular contraceptive method due to less effective than other contraceptives, chances of menstrual irregularities	If all 100 women used ECPs containing only progestin, 1 pregnancy /100 women

[1] National Health Mission Components. RMNCHA. Family Planning. https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=821&lid=222
[2] Family Planning: A Global Handbook for Providers. 2018 World Health Organization and Johns Hopkins Bloomberg School of Public Health. https://apps.who.int/iris/bitstream/handle/10665/260156/9780999203705-eng.pdf?sequence=1
[3] Reference Manual for IUCD services. Family Planning Division. Ministry of Health and Family Welfare. March 2018. https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/Family_planning/Schemes_&_Guidelines/IUCD/IUCD_Manual_English.pdf
[4] Female Sterilisation Contraception Guide. National Health Services. UK. https://www.nhs.uk/conditions/contraception/female-sterilisation/