

Oral contraceptives			
Combined Oral Contraceptives (COCs)		Single entity	
		Progestogen-only pills (POPs) (Mini pill)	Emergency pills ( <b>postcoital</b> or morning-after pills)
E.g.	Estrogen ( <b>ethinyl estradiol</b> ) + Progesterone	<b>Norgestrel</b>	<b>Levonorgestrel</b> (alone/combined with estrogen)
Dose	<b>Duration</b>	Taken Daily	72h Within <b>unprotected intercourse</b> and repeated <b>12h</b> later
	<b>Active pills</b> (21 days) + <b>Placebo</b> (7 days) = 28 days		
	<b>Form</b>		
	✓ <b>Monophasic:</b> constant dose of both components during the cycle ✓ <b>Biphasic &amp; Triphasic:</b> 1–2 dosage changes → one or both components during cycle		
Use	---	<input checked="" type="checkbox"/> <b>breast-feeding</b> (estrogen ✗ lactation while Progesterone stimulates it) <input checked="" type="checkbox"/> When estrogen is CI	---
S/E	---	⚠ Slightly higher failure rate ⚠ Menstrual irregularities ⚠ Hirsutism & Acne	⚠ Nausea and vomiting

Non oral contraceptives					
	Transdermal patches	vaginal ring	Injectable progestins	Progestin implants	Progestin intrauterine system
Administration	Estrogen + Progesterone		<input checked="" type="checkbox"/> <b>Medroxy-progesterone</b> IM/3 months  <input checked="" type="checkbox"/> for <b>unreliable women</b>	<b>Levonorgestrel</b>	
	<input checked="" type="checkbox"/> <b>Week 1–3:</b> + Patch (abdomen/torso/buttock)	<input checked="" type="checkbox"/> <b>Insert for 3 weeks</b> → steady hormone levels		(Sub-dermally on upper arm)	Local, low & continuous dose
	<input checked="" type="checkbox"/> <b>Week 4:</b> ✗ <b>No patch</b> → allow Withdrawal bleed	<input checked="" type="checkbox"/> <b>Remove for 1 week</b> → allow withdrawal bleed		<input checked="" type="checkbox"/> <b>Long-Acting Reversible Contraceptives</b> <input checked="" type="checkbox"/> Effective 3–5 years <input checked="" type="checkbox"/> <b>Rapid return</b> of menstrual cycles & <b>fertility after removal</b>	
S/E	---	Vaginal infections & irritation	⚠ Menstrual irregularities ⚠ Weight gain ⚠ <b>Infertility persists for months after final dose</b>	⚠ Menstrual irregularities ⚠ Headache	⚠ Endometrial atrophy. ⚠ <b>↓bleeding</b> (Associated with standard copper containing devices)

<p><b>MOA</b></p>	<p>✓ <b><u>Inhibits ovulation:</u></b></p> <ul style="list-style-type: none"> <li>▪ Progesterone → ⊖ LH (–ve feedback)</li> <li>▪ Estrogen → ⊖ FSH (–ve feedback)</li> </ul> <p>✓ <b><u>Endometrial &amp; Tubal Effects:</u></b></p> <ul style="list-style-type: none"> <li>▪ Alters Endometrium → Interfere with implantation</li> <li>▪ ↓ Uterine/cervical/fallopian contractions → ↓ sperm transport &amp; fertilization</li> </ul> <p>✓ <b><u>Cervical Mucus:</u></b> ↑ Thickness → ⊖ sperm penetration</p>	
<p><b>S/E</b></p>	<p><b>CVS</b></p>	<p>⚠ <b>Serious S/E of Combined Contraceptives (COCs)</b> (↑ Risk in women &gt;35 yrs &amp; smokers):</p> <ol style="list-style-type: none"> <li>1) HTN</li> <li>2) ↑ Risk of MI</li> <li>3) ↑Thrombosis</li> </ol>
	<p><b>CNS</b></p>	<p>⚠ Migraine headache (COCs).          ⚠ Ischemic stroke (COCs).          ⚠ Mood changes and depression.</p>
	<p><b>GIT</b></p>	<p>⚠ Nausea and vomiting.          ⚠ Cholecystitis and gall stones.          ⚠ Cholestatic hepatitis and hepatotoxicity</p>
	<p><b>Endocrine</b></p>	<p>⚠ Hyperglycemia and DM.          ⚠ Salt and water retention → Edema &amp; Weight gain.          ⚠ ✗ lactation in lactating women (COCs)          ⚠ Menstrual irregularities          ⚠ Acne and hirsutism (<b>Androgenic effect of progesterone</b>)</p>
	<p><b>Cancer</b></p>	<p>⚠ ↑ risk of breast cancer (COCs).  <b>N.B.</b> ↓ risk of ovarian &amp; endometrial cancer (COCs)</p>
<p><b>CI</b></p>	<p><b>History of any S/E (COCs)</b></p>	
<p><b>Drug interactions</b></p>	<p>★ <b><u>Enzyme Inducers</u></b> (Rifampin, Phenytoin) → ↓ Effectiveness via ↑ metabolism</p> <p>★ <b><u>Broad-Spectrum Antibiotics</u></b> (Tetracyclines) → ⊖ Disrupt gut flora → ↓ <b>enterohepatic circulation</b></p> <p>★ <b><u>Paraffin Oil</u></b> (Laxative) → ↓ Intestinal absorption of contraceptive pills</p>	