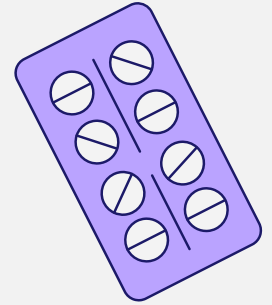
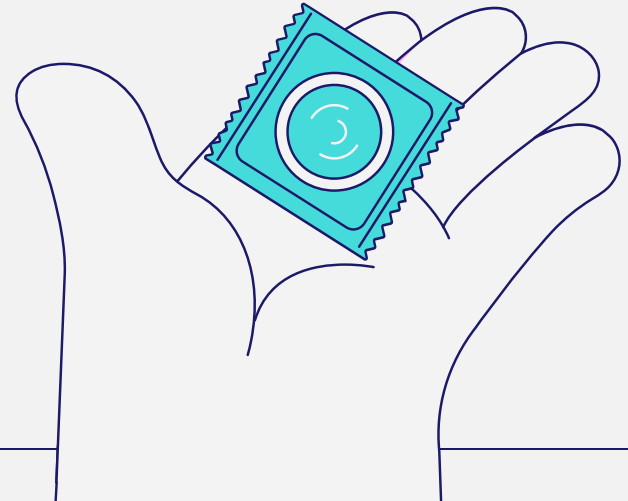




# Kontrasepsi



Farmakoterapi 2



# Defenition.....

## Contraseption??

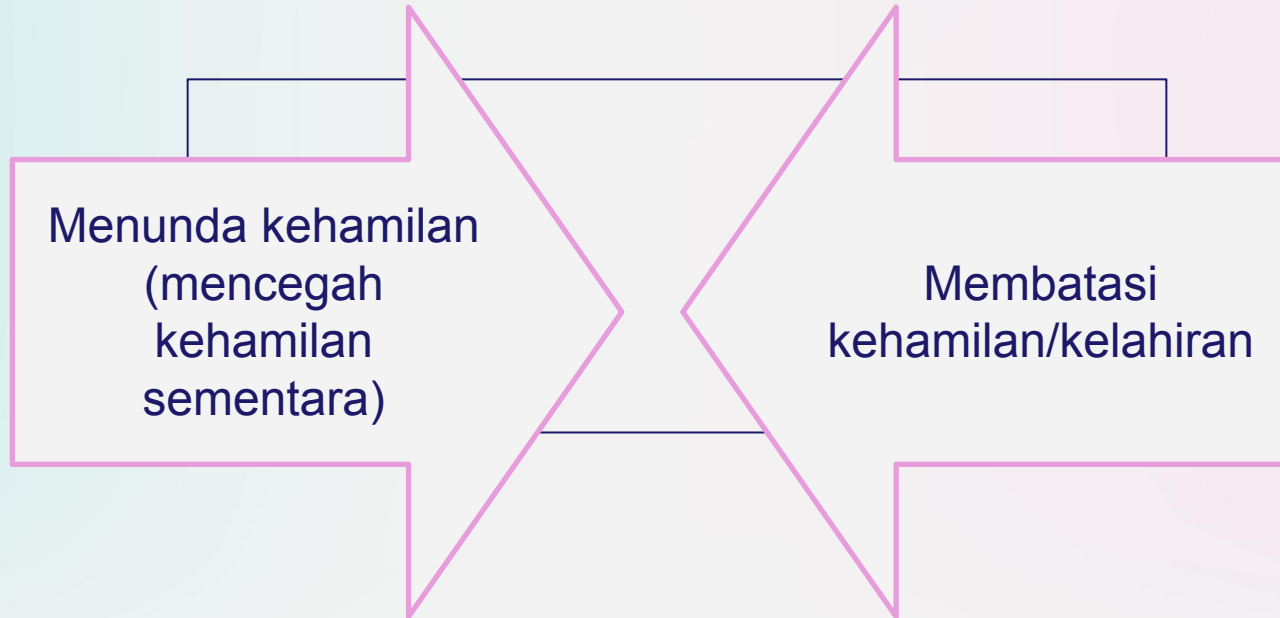
Alat dan Obat Kontrasepsi adalah alat dan obat kontrasepsi yang dipergunakan dalam pelayanan program pembangunan keluarga, kependudukan, dan keluarga berencana yang diperuntukkan bagi pasangan usia subur

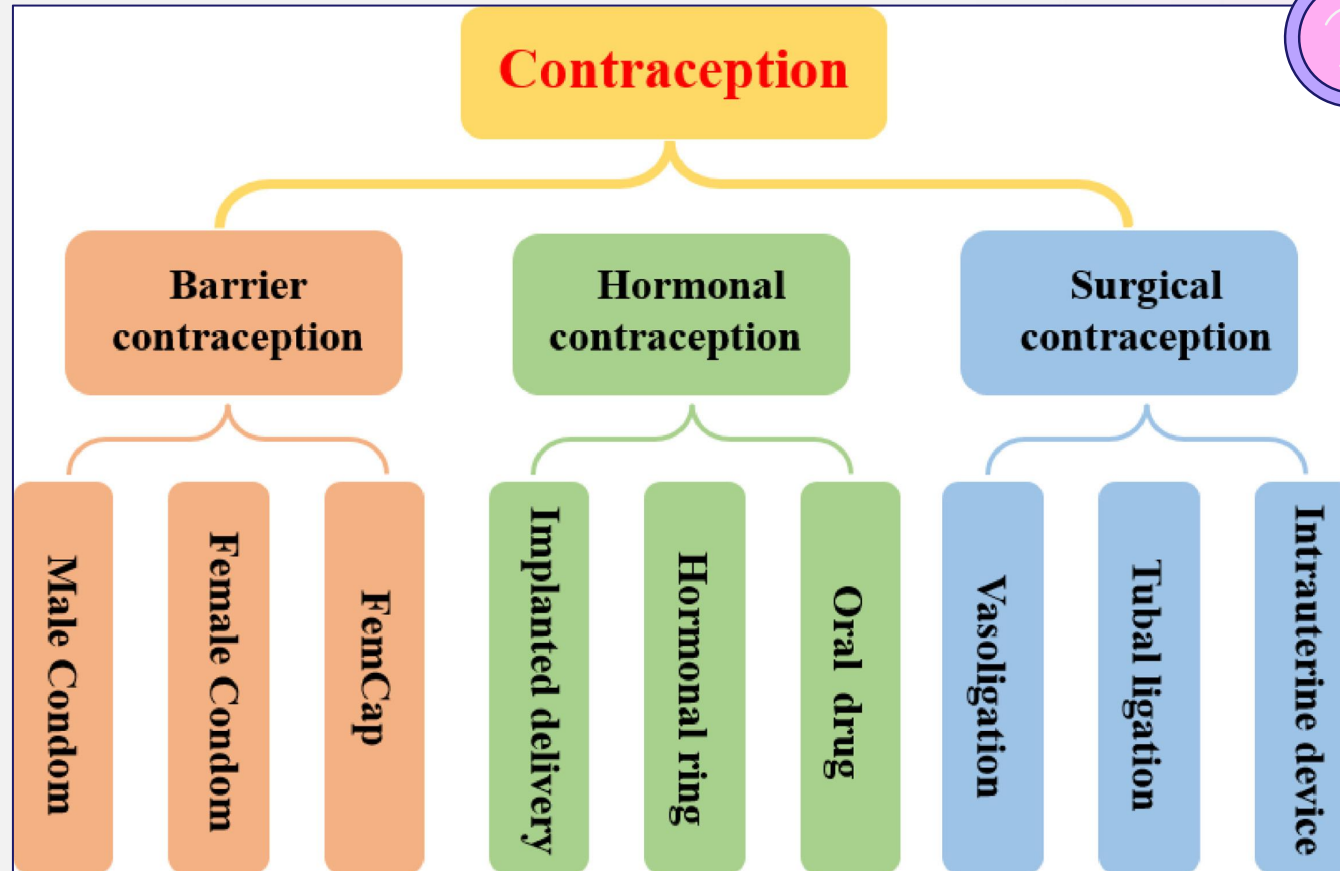
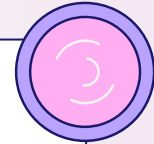
**Peraturan BKKBN NOMOR 1 TAHUN 2023**

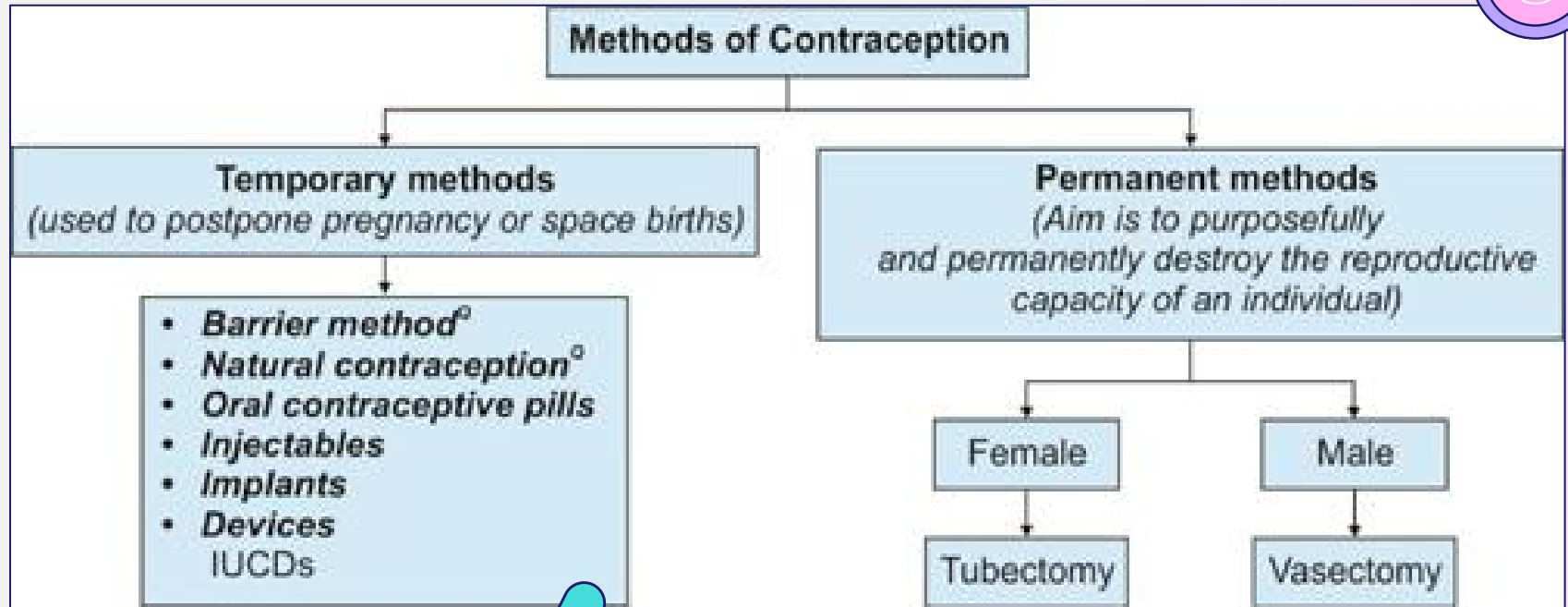


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# Penggunaan Kontrasepsi







Tabel Pengklasifikasian Metode Kontrasepsi

NO	METODE	KANDUNGAN		MASA PERLINDUNGAN		MODERN/TRADISIONAL	
		HORMONAL	NON HORMONAL	MKJP	NON MKJP	MODERN	TRADISIONAL
1	AKDR Cu		√	√		√	
2	AKDR LNG	√		√		√	
3	Implan	√		√		√	
4	Suntik	√			√	√	
5	Pil	√			√	√	
6	Kondom		√		√	√	
7	Tubektomi/ MOW		√	√		√	
8	Vasektomi/ MOP		√	√		√	
9	Metode Amenore Laktasi/ MAL		√		√	√	
10	Sadar Masa Subur		√		√		√
11	Sanggama Terputus		√		√		√



# HORMONAL CONTRACEPTIVES



## Oral

## Injectable

### Combined pills

- Norgestrel (0.5 mg) + Ethinylestradiol (50 µg)
- Levonorgestrel (0.1 – 0.25 mg) + Ethinylestradiol (20 – 50 µg)
- Desogestrel (0.15 mg) + Ethinylestradiol (20 – 30 µg)

### Phased pills

- Levonorgestrel (50 µg – 75 µg – 125 µg) + Ethinylestradiol (30 µg – 40 µg – 30 µg)
- Norethindrone (0.5 mg – 0.75 mg – 1.0 mg) + Ethinylestradiol (35 µg)

### Postcoital pills

- Levonorgestrel (1.5 mg)
- Levonorgestrel (0.5 mg) + Ethinylestradiol (100 µg) × 2 doses

- Depot medroxy-progesterone acetate (DMPA)
- Norethindrone enanthate

### Progestin only pills (mini pills)

- Norethindrone (0.35 mg)
- Norgestrel (75 µg)

# Contoh Produk Kontrasepsi Oral



Table 1

## Summary of Selected Currently Available Oral Contraceptives in the United States

Type	Progestin/estrogen	Brand	Progestin (mg)	Estrogen (mcg)	Packaging Notes
<b>Combination Extended Cycle</b>					
Levonorgestrel/ethinyl estradiol (EE)	Jolesa	0.15	30		
	LoSeasonique	0.1	20	84 active	
		none	10	7 inactive	
	Seasonale	0.15	30		
Seasonique		0.15	30	84 active	
		none	10	7 inactive	
<b>Combination Monophasic</b>					
Norethindrone/EE, ferrous fumarate	Generess Fe	0.8	25		
	Junel Fe 1/20 <sup>ab</sup>	1	20		
	Junel Fe 24	1	20	24 active	
				4 inactive	
Lo Loestrin Fe		1	10	24 active	
		none	10	2 active	
Norethindrone/EE	Junel 21 1/20 <sup>ab</sup>	1	20		
	Necon 0.5/35 <sup>c</sup>	0.5	35		
Levonorgestrel/EE	Lessina	0.1	20		
	Portia	0.15	30		
Norgestrel/EE	Low-Ogestrel	0.3	30		
	Ogestrel 0.5/50	0.5	50		
Desogestrel/EE	Apri <sup>d</sup>	0.15	30		
	Yasmin <sup>e</sup>	3	20		
	Yaz	3	20		
Norgestimate/EE	Sprintec <sup>f</sup>	0.25	35		

Combination Monophasic With Folate				
Drospirenone/EE, Levomefolate calcium 451 mcg (active and inactive)	Beyaz	3	20	24 active 4 inactive
Combination Biphasic				
Norethindrone/EE	Necon 10/11	0.5 1	35 35	10 active 11 active
Desogestrel/EE	Kariva	0.15 none	20 10	21 active 5 active
Combination Triphasic				
Desogestrel/EE	Cyclessa	0.1	25	7 active
		0.125	25	7 active
		0.15	25	7 active
Norethindrone/EE	Necon 7/7/7 <sup>a</sup>	0.5	35	7 active
		0.75	35	7 active
		1	35	7 active
Norgestimate/EE	Ortho Tri-Cyclen <sup>h</sup>	0.18	35	7 active
		0.215	35	7 active
		0.25	35	7 active
	Ortho Tri-Cyclen Lo	0.18	25	7 active
		0.215	25	7 active
		0.25	25	7 active
Levonorgestrel/EE	Enpresse	0.05	30	6 active
		0.075	40	5 active
		0.125	30	10 active
Progestin Only				
Norethindrone	Camilla <sup>i</sup>	0.35	none	

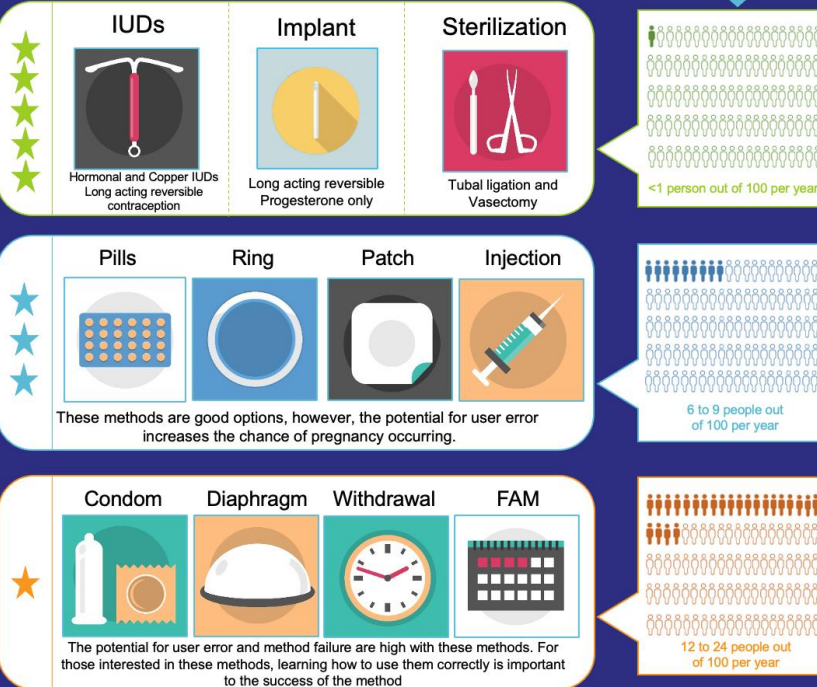
Note: This is a summary of available products; for an exhaustive list, see Reference 32. <sup>a</sup> Also available as 1.5/30. <sup>b</sup> Also marketed as Microgestin. <sup>c</sup> Also available as 1/35. <sup>d</sup> Also marketed as Desogen and Reclipsen. <sup>e</sup> Also marketed as Ocella. <sup>f</sup> Also marketed as Ortho-Cyclen and Mononessa. <sup>g</sup> Also marketed as Notrel 7/7/7 and Ortho-Novum 7/7/7. <sup>h</sup> Also marketed as Tri-Sprintec and Trinessa. <sup>i</sup> Also marketed as Errin, Jolivet, Nor-QD, Nora-be, Ortho Micronor. Fe: iron. Source: Reference 32.





# Metode kontrasepsi

## How well does birth control work?



## Emergency Contraception Options

**Copper IUD**  
(Flexi-T<sup>®</sup>, Nova-T<sup>®</sup>, Liberté<sup>®</sup>,  
Mona Lisa<sup>®</sup>, SMB<sup>®</sup>)



**Ullipristal**  
(ella<sup>®</sup>)



**Levonogestrel**  
(Plan B<sup>®</sup>, Contingency 1<sup>®</sup>,  
Next Choice<sup>®</sup>, NorLevo<sup>®</sup>, Option 2<sup>®</sup>)



**Yuzpe regimen**  
Using oral contraceptive pills (Alesse<sup>®</sup>,  
Min-Ovral<sup>®</sup>, Triquilar<sup>®</sup>)





Nama dagang	kandungan	Jumlah tablet	Cara pakai	Biaya
Andalan postpill	Levonogestrol 0.75 mg (progestin)	2 tab	Diminum 1 pil sekaligus dalam waktu 12 jam atau maksimal 120 jam (5 hari) setelah berhubungan seksual tanpa perlindungan alat kontrasepsi.	Murah
Andalan	Levonogestrel 0.15 mg, dan ethinylestradiol 0.03 mg	56 tab	Diminum sesuai petunjuk dokter, 1 kali sehari, sebanyak 1 tablet sebelum atau bersama makanan.	Murah
Postinor-2	Levonogestrol 0.75 mg	2 tab	Ambil dua tablet secara oral pada waktu yang sama sesegera mungkin. Sebaiknya dalam waktu 12 jam dan tidak lebih dari 72 jam setelah berhubungan seksual tanpa pengaman.	Murah
Yasmin	Drospirenon 3 mg (progestin) dan Etinil Estradiol 0.030 mg (estrogen)	21 tab	Diminum tiap hari 2 tablet, selama 21 hari. Lalu 7 hari tanpa tablet, dan seterusnya.	Mahal
Yaz	Drospirenone 3 mg dan ethinylestradiol 0.02 mg	28 tab	Diminum 1 tablet per hari, di jam yang sama selama 28 hari berturut-turut bersama makanan. Tiap tablet dari kemasan baru dikonsumsi 1 hari sesudah hari penggunaan tablet terakhir, pada kemasan yang sebelumnya.	Mahal

# ORAL CONTRACEPTIVE MANAGEMENT



## Combined Oral Contraceptive (COC)

Active ingredient

Estrogen (ethinylestradiol, estradiol, mestranol) & progestin (levonorgestrel, norethindrone, norgestrel, etc)  
→ many combinations

Placebo week



Mechanism of action

**Estrogen:**  
suppresses FSH, prevents follicle development  
**Progestin:**  
suppresses LH, prevents ovulation, thins uterine lining, thickens cervical mucus

Administration

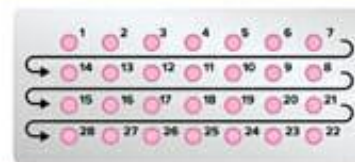
28-day pill pack typically includes 3 weeks of pills containing hormones and one week of placebo or iron pills. Period or "withdrawal bleed" occurs during placebo week, then client starts new pill pack. May also be taken on a 91-day cycle.

Adverse effects

**Common side effects:**  
Nausea, breast tenderness, headaches, weight gain, mood changes, decreased libido, irregular bleeding  
**Serious adverse effects:**  
• Risk of blood clots → PE, MI, stroke  
• Hypertension  
• Rare hepatic adenoma

## Progestin-Only Pill (POP)

A single progestin  
(levonorgestrel, norethindrone, drospirenone)



**Progestin:**

suppresses LH, prevents ovulation, thins uterine lining, thickens cervical mucus

**Continuous cycling:**

28-day pill pack includes all hormone-containing pills and no placebo. New pill pack is started as soon as previous pack is completed.

**Common side effects:**  
Nausea, headaches, breast tenderness, acne, mood changes, libido changes  
• Lower risk of blood clots  
• Higher likelihood of irregular bleeding

---

# Lupa minum pil KB?

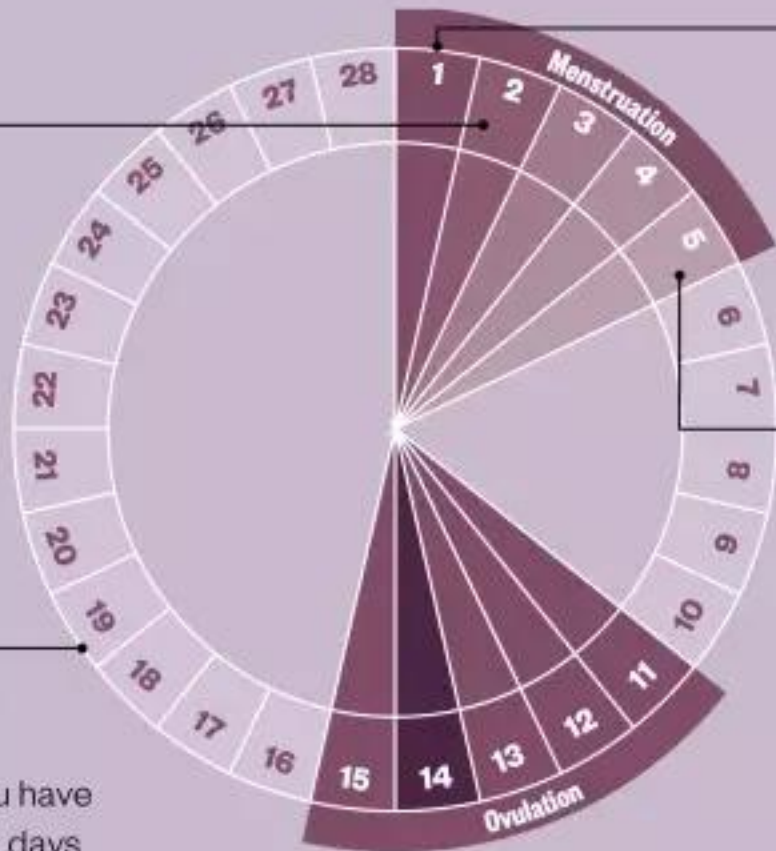
- Lupa kemarin →segera minum saat ingat.
- Baru mengingat 2 hari kemudian →minum 2 pil.
- Lupa minum selama 2 hari →minum 2 pil saat mengingatnya & 2 pil lagi keeseokan harinya.



Kembali  
pada jadwal  
awal

If you start Zoely,  
Eloine, Daylette  
or Qlaira on day  
2 or later, you will  
need additional  
contraception for 7  
days (9 for Qlaira)

If you start the pill  
on any other day, you  
will need additional  
contraception until you have  
taken the pill for seven days



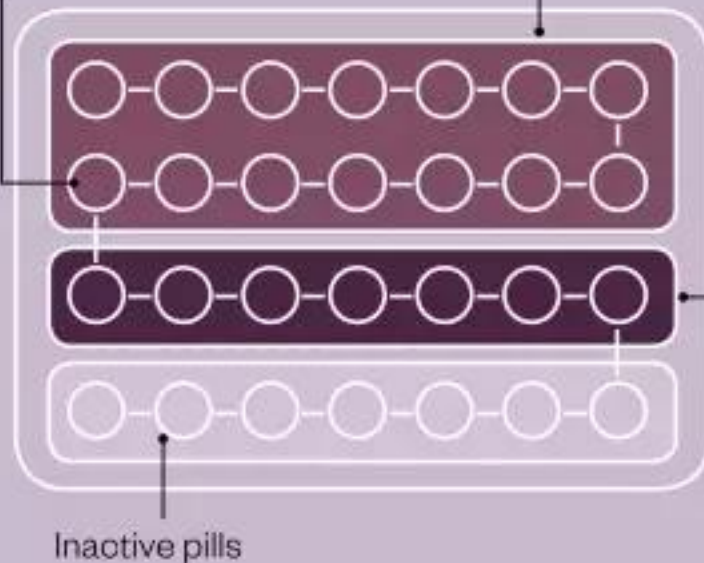
If you start the combined  
pill on day 1 of your  
menstrual cycle, you will be  
protected from pregnancy  
straight away

Unless you have a short  
cycle, starting the pill on  
the fifth day or before will  
protect you straight away



### Missed pills on week 2:

- Take the most recently missed pill straight away and further pills as usual
- Extra precautions (condoms) are needed for the next 7 days



### Missed pills on week 1:

- Take the most recently missed pill straight away and further pills as usual
- Extra precautions (condoms) are needed for the next 7 days
- Emergency contraception is recommended if there has been unprotected sex

### Missed pills on week 3:

- Take the most recently missed pill straight away and further pills as usual
- Omit the pill-free interval (or inactive pills)
- Extra precautions (condoms) are needed for the next 7 days

**MOST  
EFFECTIVE**



**REVERSIBLE**

**IMPLANT**



**0.1%  
FAILURE RATE**

**IUD**



**LNG: 0.1% - 0.4%  
COPPER T: 0.8%  
FAILURE RATE**

**PERMANENT**



**FEMALE  
STERILIZATION: 0.5%  
FAILURE RATE**

**MALE  
STERILIZATION: 0.15%  
FAILURE RATE**

**REVERSIBLE**

**INJECTION  
OR SHOT**



**4%  
FAILURE RATE**

**THE PILL**



**7%  
FAILURE RATE**

**PATCH**



**7%  
FAILURE RATE**

**RING**



**7%  
FAILURE RATE**

**DIAPHRAGM**



**17%  
FAILURE RATE**

**REVERSIBLE**

**MALE  
CONDOM**



**13%  
FAILURE RATE**

**FEMALE  
CONDOM**



**21%  
FAILURE RATE**

**WITHDRAWAL  
OR PULL OUT**



**22%  
FAILURE RATE**

**SPONGE**



**14% - 27%  
FAILURE RATE**

**FERTILITY-BASED  
AWARENESS**



**2% - 23%  
FAILURE RATE**

**SPERMICIDE**



**21%  
FAILURE RATE**

**LEAST  
EFFECTIVE**

Using condoms can reduce the risk of sexually transmitted infections.

# EFEKTIVITAS KONTRASEPSI





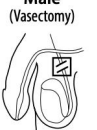


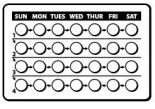
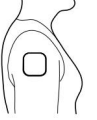





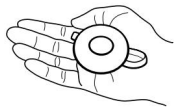

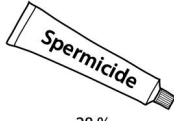
More Effective  
↑  
Less than 1 pregnancy per 100 women in a year

6-12 pregnancies per 100 women in a year

18 or more pregnancies per 100 women in a year

Less Effective  
↓

## Effectiveness of Contraceptive Methods

<b>Implant</b>  0.05 %*	<b>Intrauterine Device (IUD)</b>  LNG - 0.2 % Copper T - 0.8 %	<b>Male Sterilization (Vasectomy)</b>  0.15 %	<b>Female Sterilization (Abdominal, Laparoscopic, Hysteroscopic)</b>  0.5 %	<b>How to make your method most effective</b> After procedure, little or nothing to do or remember. <b>Vasectomy and hysteroscopic sterilization:</b> Use another method for first 3 months.	
<b>Injectable</b>  6 %	<b>Pill</b>  9 %	<b>Patch</b>  9 %	<b>Ring</b>  9 %	<b>Diaphragm</b>  12 %	<b>Injectable:</b> Get repeat injections on time. <b>Pills:</b> Take a pill each day. <b>Patch, Ring:</b> Keep in place, change on time. <b>Diaphragm:</b> Use correctly every time you have sex.
<b>Male Condom</b>  18 %	<b>Female Condom</b>  21 %	<b>Withdrawal</b>  22 %	<b>Sponge</b>  24 % parous women 12 % nulliparous women	<b>Condoms, sponge, withdrawal, spermicides:</b> Use correctly every time you have sex. <b>Fertility awareness-based methods:</b> Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be the easiest to use and consequently more effective.	
<b>Fertility-Awareness Based Methods</b>  24 %	<b>Spermicide</b>  28 %				

\* The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.

\* The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

**CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.**

**Other Methods of Contraception**

**Lactational Amenorrhea Method:** LAM is a highly effective, *temporary* method of contraception.

**Emergency Contraception:** Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Adapted from WHO's Family Planning: A Global Handbook for Providers (2001) and Trussell et al (2011).







CS 231556








# Birth Control Methods Chart

Designed for providers to help clients consider their birth control options, this chart takes client autonomy into account and presents methods that clients can start and stop on their own and those that require provider involvement (prescription or procedure). The chart highlights method characteristics, including use & frequency, so clients can make informed decisions, based on their own preferences. Note: Within each table, the methods are listed in order of pregnancy risk, and side effects are alphabetized within each method.

## CLIENTS CAN START AND STOP ON THEIR OWN

Method	Pregnancy Risk*	Use & Frequency	Period Changes	Potential Side Effects	Other Considerations
Pill (progestin-only), Opill 	9 out of 100	Client takes by mouth same time every day.	Spotting or bleeding between periods. May not have traditional withdrawal bleeding	Acne, breast tenderness, headache, nausea, weight gain	Available OTC. Safe for people with high blood pressure, blood clot history, and those who can't take estrogen.
Condom (external) 	13 out of 100	Client rolls onto erect penis (external) every time has sex.	None	Allergic reactions, vaginal irritation	Method prevents STIs. Requires a cooperative partner.
Fertility Awareness-based (FAB) 	15–24 out of 100 (depends on specific FAB method)	Client tracks signs of fertility daily and abstains from sex on fertile days.	None	None	Must have regular cycles and be comfortable tracking basal body temperature and cervical mucus.
Spermicide or vaginal sponge 	21 (spermicide alone) or 9 (sponge) out of 100	Client inserts into vagina before penile-vaginal sex every time.	None	Vaginal irritation	Pair with another method for back-up.
Condom (internal) 	21 out of 100	Client inserts into vagina (internal) every time has sex.	None	Allergic reactions, vaginal irritation	Method prevents STIs. Requires a cooperative partner.
Withdrawal 	25 out of 100	Partner with penis ejaculates outside of and away from vagina.	None	None	Requires a cooperative partner.

## REQUIRES PROVIDER TO START WITH A PRESCRIPTION (CLIENTS CAN STOP ON THEIR OWN)—CONTINUED ON OTHER SIDE

Method	Pregnancy Risk*	Use & Frequency	Period Changes	Potential Side Effects	Other Considerations
Shot (IM/SC) progestin-only 	4 out of 100	Provider administers shot (IM), or the client self-administers (SC) shot every 12–15 weeks.	Spotting, lighter period, or no period	Bone density loss, headache, weight gain	Delay in fertility return. Not visible to others.
Patch (transdermal system estrogen + progestin) 	7 out of 100	Client places patch on back, butt, or belly. Every month, changes patch weekly for 3 weeks and no patch for 1 week.	Temporary spotting or lighter period	Breast tenderness, headache, nausea, skin irritation, stomach pain	May be less effective in people with a BMI of 30 or over. Extended/continuous use option.
Pill (combined estrogen + progestin) 	7 out of 100	Client takes by mouth daily.	Temporary spotting or lighter period	Breast tenderness, headache, nausea, risk for blood clots	May reduce acne, cramping, and PMS. Extended/continuous use option.
Ring (estrogen + progestin) 	7 out of 100	Client places ring into vagina. Every month, keeps ring in vagina for 3 weeks and then removes for 1 week.	Lighter period or temporary spotting	Breast tenderness, nausea	Two types: monthly and yearly. May reduce acne, cramping, and PMS. Not visible but can be felt by partners.
Pill (progestin-only, "the mini pill") 	9 out of 100	Client takes by mouth at the same time every day.	Spotting or bleeding between periods. May not have traditional withdrawal bleeding	Acne, breast tenderness, headache, nausea, weight gain	Safe for people with high blood pressure, blood clot history, and those who can't take estrogen.

\*The number of people out of every 100 who have an unintended pregnancy within the first year of typical use of each method.





# CONTRACEPTION SIDE EFFECTS AND PATIENT EDUCATION

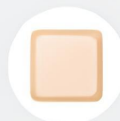


## Combined hormonal contraceptives (COCs)

COCs contain estrogen and progestin. Side effects may vary based on the type and dose of each component.



Pill



Patch



Ring

### Common, benign side effects

- Breakthrough bleeding
- Nausea
- Headaches
- Abdominal cramping
- Breast tenderness
- Vaginal dryness
- Decreased libido
- Mood changes

### Serious adverse effects

- Hypertension
- Blood clots (VTE, stroke)
- Cardiovascular events
- Liver disorders
- Glucose dysregulation in clients with history of diabetes

### Contraindications

- Uncontrolled hypertension
- Migraine with aura
- Ischemic heart disease
- History of blood clots or coagulation disorders
- Known liver disease
- Smokers > 35 years old
- Endometrial or breast cancer

### WARNING SIGNS

- A** Abdomen: severe pain may indicate liver tumor or ectopic pregnancy
- C** Chest: severe pain and SOB may indicate MI or PE
- H** Head: sudden severe headache may indicate stroke
- E** Eye: blurriness or loss of vision may indicate blood clot in eye
- S** Sudden pain or swelling in leg: may indicate VTE

### Client education

- Review ACHES and how to report concerning symptoms
- Encourage reporting of benign side effects as well, may be improved by change of formulation

# ACHES (Birth Control Adverse Effects)

## The ACHES acronym for birth control side effects

ACHES is a mnemonic used to remember the warning signs for serious adverse effects of hormonal contraceptives.

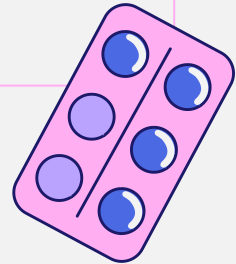
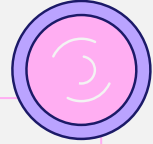
**A – Abdomen:** severe pain may indicate liver tumor or ectopic pregnancy

**C – Chest:** severe pain and SOB may indicate MI or PE

**H – Head:** sudden severe headache may indicate stroke

**E – Eye:** blurriness or loss of vision may indicate blood clot in eye

**S – Sudden pain or swelling in leg:** may indicate VTE



# The pill toolbox: How to choose a combined oral contraceptive

- doi: 10.12788/obgm.0056

**TABLE 3 Recommended combined oral contraceptives to minimize adverse effects or risks**

Adverse effect/risk	Recommended pill type	Pill examples
Mood changes	Extended cyclic or continuous	Seasonique, Introvale, Amethyst
Nausea, breast tenderness	Pill with ethinyl estradiol 20 µg or lower	Loestrin 1/20, Lo Loestrin
Hypertension	Drospirenone-ethinyl estradiol	Yaz, Yasmin
Intermenstrual bleeding	Third-generation progestin with more than 20 µg ethinyl estradiol	Sprintec, Ortho-Cyclen
Venous thromboembolism	First- or second-generation progestin with low estrogen dose	Loestrin 1/20, Amethyst
Weight gain	Drospirenone-ethinyl estradiol	Yaz, Yasmin

# ADR

**Table 4**

## Managing Adverse Effects

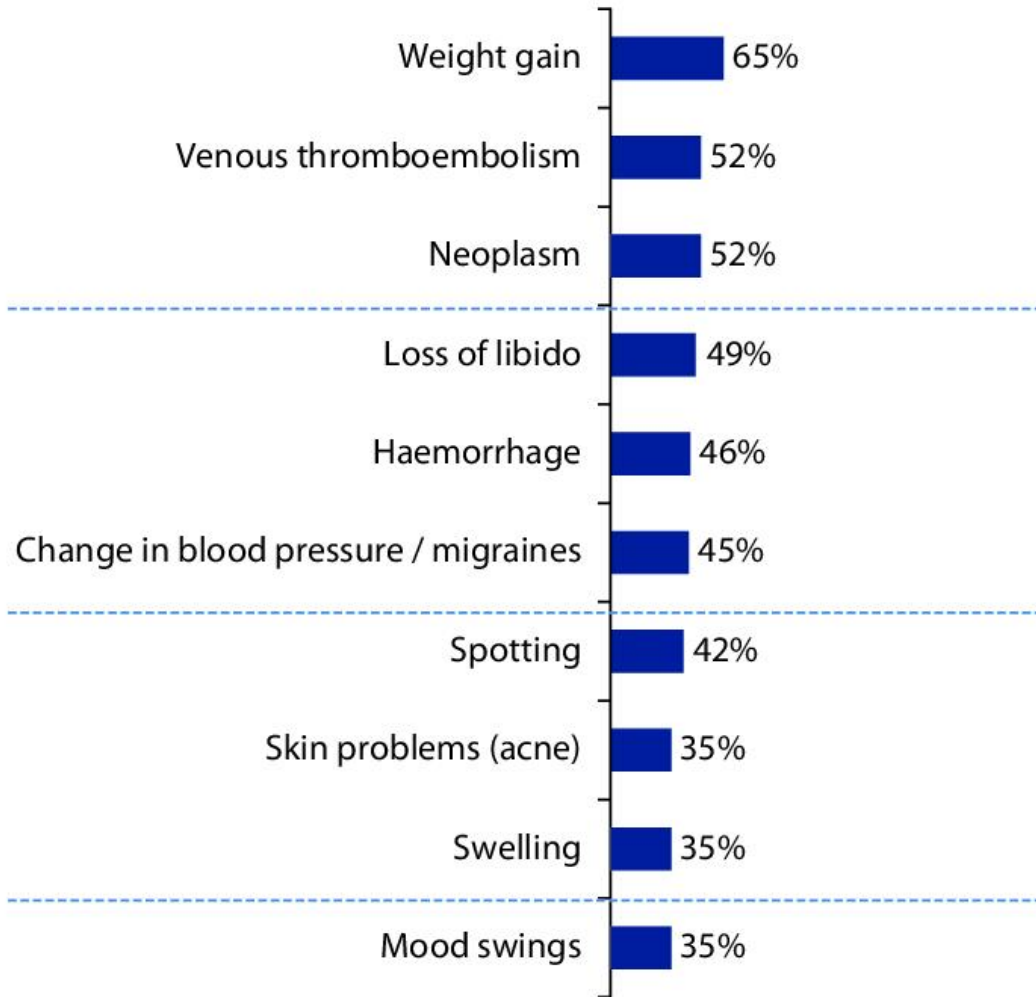
Adverse Effect	Management Strategy
Bloating/fluid retention	<ul style="list-style-type: none"> <li>• Reduce estrogen dose</li> <li>• Change to progestin with mild diuretic effect (drospirenone)</li> </ul>
Breakthrough bleeding	<ul style="list-style-type: none"> <li>• If EE dose 20 mcg, increase to maximum of 35 mcg</li> <li>• Change progestin if already taking EE dose of 30-35 mcg</li> </ul>
Breast tenderness	<ul style="list-style-type: none"> <li>• Reduce estrogen or progestin dose</li> <li>• Change progestin (less androgenic with less water retention)</li> <li>• Consider OC with drospirenone</li> </ul>
Dysmenorrhea	<ul style="list-style-type: none"> <li>• Extended-cycle regimen to decrease frequency of bleeding</li> </ul>
Headache	<ul style="list-style-type: none"> <li>• Reduce estrogen dose and/or change progestin</li> <li>• If during hormone-free week, can consider extended-cycle OC</li> </ul>
Nausea	<ul style="list-style-type: none"> <li>• Reduce estrogen dose</li> <li>• Take with food or at bedtime</li> <li>• Consider progestin-only contraceptive</li> </ul>

EE: ethinyl estradiol; OC: oral contraceptive.

Source: Reference 18.



Side effects  
of greatest  
concern with  
oral  
contraceptives:  
aided  
responses.



**Breast cancer**

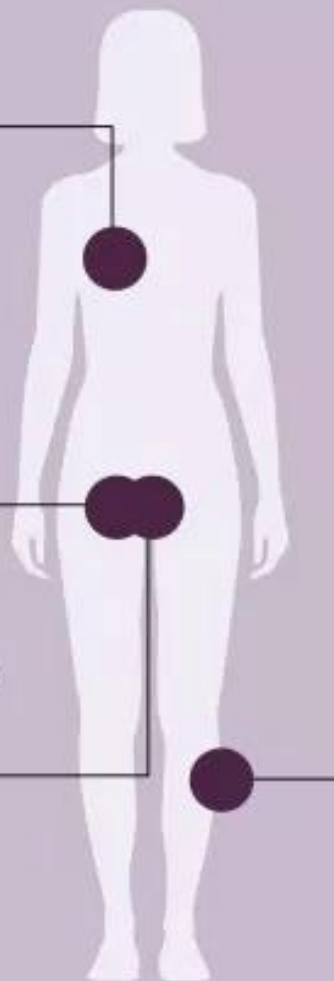
In the UK, around **1%** of breast cancers in women are associated with oral contraceptives

**Ovarian cancer**

The risk of ovarian cancers is **reduced by 50%** after >5 years of COC

**Cervical cancer**

Cervical cancer risk is **doubled** after >5 years of COC

**Venous thromboembolism (VTE)**

VTE risk is increased but is small compared with the risks during pregnancy and immediately after giving birth. The risk varies depending on the type of progestogen in the pill. The risk of VTE is highest in the four months following initiation of COCs

Women <b>not using</b> a combined hormonal pill/patch/ring and not pregnant	About 2 out of 10,000 women
COC containing <b>levonorgestrel</b> , <b>norethisterone</b> or <b>norgestimate</b>	About 5–7 out of 10,000 women
COC containing <b>etonogestrel</b> (ring) or <b>norelgestromin</b> (patch)	About 6–12 out of 10,000 women
COC containing <b>drospirenone</b> , <b>gestodene</b> or <b>desogestrel</b>	About 9–12 out of 10,000 women
COC containing <b>chlormadinone</b> , <b>dienogest</b> or <b>nomegestrol</b>	Not yet known
Pregnancy	29 per 10,000 women years
Immediate postpartum period	300–400 per 10,000 women years

# Kind of progestin, their generation and potential effects.



Sl. No.	Kind of Progestin	Generation	Effects
1.	Northindrone	1 <sup>st</sup>	Low progestational and slight oestrogenic effect. In low dose improve lipid profile by raising HDL and lowering LDL.
2.	Northindrone Acetate	1 <sup>st</sup>	Low progestational and slight oestrogenic effect.
3.	Ethinodiol Diacetate	1 <sup>st</sup>	Medium progestational effect, minor oestrogenic effect and little androgenic effect. Associated with mid-cycle BTB and spotting but with higher dose of oestrogen, no such side effects.
4.	Levonogestrel	2 <sup>nd</sup>	High progestational and androgenic effect. Negatively affect serum lipoprotein.
5.	Norgestrel Mixture of inactive (dextro-norgestrel) & active levonogestrel.	2 <sup>nd</sup>	High progestational and strong antioestrogenic effect as well as high androgenic effect. May cause LDL cholesterol to be increased and allowing HDL cholesterol to be lower.
6.	Desogestrel	3 <sup>rd</sup>	High progestational selectivity, minimizing androgenic effects and oestrogenic activity.
7.	Norgestimate	3 <sup>rd</sup>	High progestational and slight oestrogenic effect. Minimal effect on serum lipoprotein and on carbohydrate metabolism. Helpful in lowering side-effects such as nausea and vomiting.
8.	Drospirenone (Progestin derived from 17a-Spirolactoneis)	4 <sup>th</sup>	Potent progestogenic, low androgenic activity helps to suppress the secretion of the hormone that regulates the body's water and electrolyte. Causes higher K level, so women with kidney, liver or adrenal disease shouldn't use.





Brand Name of COC	Progestin (generation classification)
Alesse <sup>®</sup>	Levonogestrel (2nd)
Tri-Cyclen <sup>®</sup>	Norgestimate (3rd)
Yaz <sup>®</sup> , Yasmin <sup>®</sup>	Drospirenone (4th)
Diane <sup>®</sup> -35 <sup>*</sup>	Cyproterone acetate (4th)

**Table 2:** COCs approved by Health Canada for treatment of acne.

\*Diane<sup>®</sup>-35 is approved for acne only (not contraception). The others COCs listed in table are approved for both acne and contraception.



## Adult Female Acne: Managing the Hormones

Generations of Progesterone and Contraceptives	Impact on Acne
<b>1st Generation – marked intrinsic androgenic effect</b> <ul style="list-style-type: none"><li>• Metabolize to norethindrone (such as Lolo®)</li></ul>	Worsen/cause acne
<b>2nd Generation – varying androgenic effect</b> <ul style="list-style-type: none"><li>• Norgestrel/levonorgestrel (Min-Ovral®, Seasonique®, Indayo®, Alesse®, Aviane®, Alysenal™, Triquilar®)</li></ul>	May worsen or help treat acne
<b>3rd Generation – least androgenic</b> <ul style="list-style-type: none"><li>• Desogestrel, norgestimate, gestodene (Marvelon®, Mirvala™, Linessa®, Cyclen®, Tri-Cyclen®)</li></ul>	Effectively treats acne
<b>4th Generation/synthetic anti-androgenic</b> <ul style="list-style-type: none"><li>• Cyproterone acetate – inhibits 5-alpha-reductase and blocks androgen receptor (Diane-35)</li><li>• Drospirenone (synthetic analogue of spironolactone equivalent to 25 mg of spironolactone) - inhibits androgen production in gonads and blocks androgen receptor (Yasmin®, Yaz®)</li></ul>	Most effective for treating acne

**Table 1:** Commonly used COCs and the progestin they contain.



Adult Female  
Acne:  
Managing the  
Hormones

Hormonal Agent	Progestin (generation classification)
Depo-Provera® IM injection	Medroxyprogesterone acetate (1st)
Movisse™ tablets, Micronor® tablets	Norethindrone (1st)
Menopausal treatments: Activelle® tablet, Estalis™ transdermal patch	Norethindrone (1st)
Hormonal IUDs (Mirena®, Kyleena®)	Levonorgestrel (2nd)
Evra® transdermal patch	Norelgestromin (3rd)
NuvaRing® vaginal ring	Etonogestrel (3rd)
Nexplanon® subdermal implant	Etonogestrel (3rd)
Slynd® tablets	Drospirenone (4th)

**Table 3:** Other commonly used contraceptives/hormonal agents and the progestin they contain.

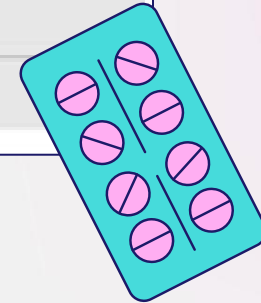
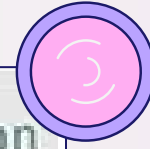
**Table 5**

## Patient Counseling for Contraception

- Start date and how to complete the pill pack
- Missed-dose instructions
- Importance of adherence and transitioning to a new pill pack
- Follow-up and changes in health status or medications

*Source: References 1, 12, 14, 20, 29.*

<https://journalce.powerpak.com/ce/prescribing-oral-contraceptives-a-new>

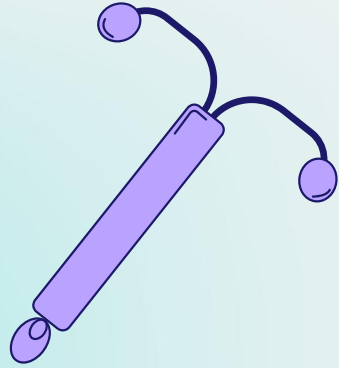




# Rangkuman

- Pemberian resep oleh apoteker memberikan kesempatan bagi pasien untuk mengakses kontrasepsi secara lebih baik dan dapat memungkinkan pengelolaan efek samping yang lebih baik terkait kontrasepsi karena keahlian apoteker dalam pengobatan dan aksesibilitasnya.
- Apoteker harus memastikan bahwa mereka melakukan skrining yang memadai terhadap pasien sebelum memulai kontrasepsi dan harus memberikan edukasi menyeluruh untuk mencegah risiko kehamilan yang tidak direncanakan akibat teknik pemberian yang buruk atau kurangnya penerimaan terhadap kontrasepsi karena masalah seperti bentuk sediaan atau efek samping.



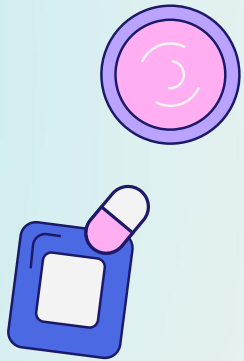


**01**  
**Any**  
**Questions?**



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# Thanks



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