

## Comparison of Oral Contraceptives and Non-Oral Alternatives

**Abbreviations:** EE = ethinyl estradiol; Fe = iron.

<b>Products<sup>a,d</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<b>LOW-DOSE MONOPHASIC PILLS</b>			
<i>Afirmelle</i> <i>Aubra EQ</i> <i>Aviane</i> <i>Balcoltra<sup>k</sup></i> <i>Falmina</i> <i>Larissia</i> <i>Lessina</i> levonorgestrel/EE levonorgestrel/EE <i>Lutera</i> <i>Orsythia</i> <i>Sronyx</i> <i>Vienna</i>	Aurobindo Afaxys Teva Avion Northstar Amneal Teva Mylan Lupin Mayne Pharma Par Mayne Pharma Xiromed	EE 20 mcg	Levonorgestrel 0.1 mg
<i>Aurovela 1/20</i> <i>Aurovela Fe 1/20</i> <i>Blisovi Fe 1/20</i> <i>Hailey Fe 1/20</i> <i>Junel 1/20</i> <i>Junel Fe 1/20</i> <i>Larin 1/20</i> <i>Larin Fe 1/20</i> <i>Loestrin-21 1/20</i> <i>Loestrin Fe 1/20</i> <i>Microgestin 1/20</i> <i>Microgestin Fe 1/20</i> norethindrone/EE norethindrone/EE norethindrone/EE/Fe <i>Tarina Fe 1/20 EQ</i>	Aurobindo Aurobindo Lupin Glenmark Teva Teva Northstar Northstar Teva branded Teva branded Mayne Pharma Mayne Pharma Glenmark Mylan Mylan Afaxys	EE 20 mcg	Norethindrone acetate 1 mg
<i>Altavera</i> <i>Ayuna</i> <i>Chateal EQ</i> <i>Kurvelo</i> levonorgestrel/EE <i>Levora</i> <i>Lillow</i> <i>Marlissa</i> <i>Portia-28</i>	Xiromed Aurobindo Afaxys Lupin Mylan Mayne Pharma Amneal Glenmark Teva	EE 30 mcg	Levonorgestrel 0.15 mg
<i>Cryselle-28</i> <i>Elinest</i> <i>Low-Ogestrel-28</i>	Teva Northstar Mayne Pharma	EE 30 mcg	Norgestrel 0.3 mg

*More . . .*

<b>Products<sup>a,d</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<b>LOW-DOSE MONOPHASIC PILLS (cont.)</b>			
<i>Aurovela 1.5/30</i> <i>Aurovela Fe 1.5/30</i> <i>Blisovi Fe 1.5/30</i> <i>Hailey 1.5/30</i> <i>Hailey Fe 1.5/30</i> <i>Junel 1.5/30</i> <i>Junel Fe 1.5/30</i> <i>Larin 1.5/30</i> <i>Larin Fe 1.5/30</i> <i>Loestrin 1.5/30-21</i> <i>Loestrin Fe 1.5/30</i> <i>Microgestin 1.5/30</i> <i>Microgestin Fe 1.5/30</i>	Aurobindo Aurobindo Lupin Glenmark Glenmark Teva Teva Northstar Northstar Teva branded Teva branded Mayne Pharma Mayne Pharma	EE 30 mcg	Norethindrone acetate 1.5 mg
<i>Apri</i> <i>Cyred EQ</i> desogestrel/EE <i>Emoquette</i> <i>Enskyce</i> <i>Isibloom</i> <i>Juleber</i> <i>Reclipsen</i>	Teva Afaxys Mylan Par Lupin Xiromed Northstar Teva	EE 30 mcg	Desogestrel 0.15 mg
drospirenone/EE drospirenone/EE drospirenone/EE drospirenone/EE <i>Ocella</i> <i>Safyral<sup>c</sup></i> <i>Syeda</i> <i>Tydemy<sup>c</sup></i> <i>Yasmin</i> <i>Zumandimine</i>	Lupin Glenmark Apotex Mylan Teva Bayer Xiromed Lupin Bayer Aurobindo	EE 30 mcg	Drospirenone 3 mg
<i>Kelnor 1/35</i> <i>Zovia 1/35</i>	Teva Mayne Pharma	EE 35 mcg	Ethinodiol diacetate 1 mg
<i>Estarilla</i> <i>Femynor</i> <i>Mili</i> <i>Mono-Linyah</i> norgestimate/EE norgestimate/EE <i>Previfem</i> <i>Sprintec</i> <i>VyLibra</i>	Xiromed Amneal Aurobindo Northstar Glenmark Lupin Par Teva Afaxys	EE 35 mcg	Norgestimate 0.25 mg
<i>Balziva</i> <i>Briellyn</i> <i>Femcon Fe</i> chewable <i>Philith</i> <i>Vyfemla</i> <i>Wymzya Fe</i> chewable	Teva Glenmark Allergan Northstar Lupin Lupin	EE 35 mcg	Norethindrone 0.4 mg

More . . .

<b>Products<sup>a,d</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<b>LOW-DOSE MONOPHASIC PILLS (cont.)</b>			
<i>Necon</i> <i>Nortrel 0.5/35</i> <i>Wera</i>	Mayne Pharma Teva Northstar	EE 35 mcg	Norethindrone 0.5 mg
<i>Alyacen 1/35</i> <i>Cyclafem 1/35</i> <i>Dasetta 1/35</i> <i>Nortrel 1/35-21</i> <i>Nortrel 1/35-28</i> <i>Ortho-Novum 1/35</i> <i>Pirmella 1/35</i>	Glenmark Par Northstar Teva Teva Janssen Lupin	EE 35 mcg	Norethindrone 1 mg
<b>HIGH-DOSE MONOPHASIC PILLS</b>			
<i>Kelnor 1/50-28</i>	Teva	EE 50 mcg	Ethinodiol diacetate 1 mg
<b>BIPHASIC PILLS</b>			
<i>Azurette</i> <i>Bekyree</i> desogestrel/EE <i>Kariva</i> <i>Mircette</i> <i>Pimtrea</i> <i>Simliya</i> <i>Viorele</i> <i>Volnea</i>	Mayne Pharma Lupin Mylan Teva Teva branded Northstar Aurobindo Glenmark Xiromed	EE 20 mcg x 21 days, placebo x 2 days, 10 mcg x 5 days	Desogestrel 0.15 mg x 21 days
<b>TRIPHASIC PILLS</b>			
<i>Estrostep Fe</i> <i>Tilia Fe</i> <i>Tri-Legest Fe-28</i>	Allergan Mayne Pharma Teva	EE 20 mcg x 5 days, 30 mcg x 7 days, 35 mcg x 9 days	Norethindrone acetate 1 mg x 21 days
norgestimate/EE <i>Tri-Lo-Estarylla</i> <i>Tri-Lo-Marzia</i> <i>Tri-Lo-Mili</i> <i>Tri-Lo-Sprintec</i> <i>Tri-VyLibra Lo</i>	Glenmark Xiromed Lupin Aurobindo Teva Afaxys	EE 25 mcg x 21 days	Norgestimate 0.18 mg x 7 days, 0.215 mg x 7 days, 0.25 mg x 7 days
<i>Caziant<sup>n</sup></i> <i>Cyclessa</i> <i>Velivet</i>	Mayne Pharma Aspen Global Teva	EE 25 mcg x 21 days	Desogestrel 0.1 mg x 7 days, 0.125 mg x 7 days, 0.15 mg x 7 days
<i>Enpresse</i> <i>Levonest</i> levonorgestrel/EE <i>Trivora</i>	Teva Northstar Lupin Mayne Pharma	EE 30 mcg x 6 days, 40 mcg x 5 days, 30 mcg x 10 days	Levonorgestrel 0.05 mg x 6 days, 0.075 mg x 5 days, 0.125 mg x 10 days
norgestimate/EE norgestimate/EE <i>Tri-Estarylla</i> <i>Tri Femynor</i> <i>Tri-Linyah</i> <i>Tri-Mili</i> <i>Tri-Previfem</i> <i>Tri-Sprintec</i> <i>Tri-VyLibra</i>	Glenmark Lupin Xiromed Amneal Northstar Aurobindo Par Teva Afaxys	EE 35 mcg x 21 days	Norgestimate 0.18 mg x 7 days, 0.215 mg x 7 days, 0.25 mg x 7 days

More...

<b>Products<sup>a,d</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<b>TRIPHASIC PILLS (cont.)</b>			
<i>Aranelle</i> <i>Leena</i>	Teva Mayne Pharma	EE 35 mcg x 21 days	Norethindrone 0.5 mg x 7 days, 1 mg x 9 days, 0.5 mg x 5 days
<i>Alyacen 7/7/7</i> <i>Cyclafem 7/7/7</i> <i>Dasetta 7/7/7</i> <i>Nortrel 7/7/7</i> <i>Ortho-Novum 7/7/7</i> <i>Pirmella 7/7/7</i>	Glenmark Par Northstar Teva Janssen Lupin	EE 35 mcg x 21 days	Norethindrone 0.5 mg x 7 days, 0.75 mg x 7 days, 1 mg x 7 days
<b>FOUR-PHASIC PILLS</b>			
<i>Natazia</i>	Bayer	Estradiol valerate 3 mg x 2 days, then 2 mg x 22 days, then 1 mg x 2 days, then 2-day pill-free interval	Dienogest none x 2 days, then 2 mg x 5 days, then 3 mg x 17 days, then none x 4 days
<b>EXTENDED-CYCLE PILLS</b>			
<i>Lo Loestrin Fe</i>	Allergan	EE 10 mcg x 26 days	Norethindrone acetate 1 mg x 24 days
<i>Aurovela 24 Fe</i> <i>Blisovi 24 Fe</i> <i>Charlotte 24 Fe</i> chewable <i>Hailey 24 Fe</i> <i>Junel Fe 24</i> <i>Larin 24 Fe</i> <i>Melodetta 24 Fe</i> chewable <i>Mibelas 24 Fe</i> <i>Minastrin 24 Fe</i> chewable norethindrone acetate/EE/Fe norethindrone acetate/EE/Fe <i>Tarina 24 Fe</i> <i>Taytulla<sup>i</sup></i>	Aurobindo Lupin Glenmark Glenmark Teva Northstar Amneal Lupin Allergan Teva Xiromed Afaxys Allergan	EE 20 mcg x 24 days	Norethindrone acetate 1 mg x 24 days
<i>Generess Fe</i> chewable <i>Kaitlib Fe</i> chewable <i>Layolis Fe</i> norethindrone/EE/Fe chewable	Allergan Lupin Teva Mylan	EE 25 mcg x 24 days	Norethindrone 0.8 mg x 24 days
<i>Amethia Lo<sup>n</sup></i> <i>Camrese Lo</i> levonorgestrel/EE <i>LoJaimiess</i> <i>LoSeasonique</i>	Mayne Pharma Teva Lupin Xiromed Teva branded	EE 20 mcg x 84 days, 10 mcg x 7 days	Levonorgestrel 0.1 mg x 84 days
<i>Quartette</i> <i>Rivelsa</i>	Teva branded Teva	EE 20 mcg x 42 days, 25 mcg x 21 days, 30 mcg x 21 days, 10 mcg x 7 days	Levonorgestrel 0.15 mg x 84 days
<i>Iclevia<sup>j</sup></i> <i>Introvale</i> <i>Jolessa</i> levonorgestrel/EE levonorgestrel/EE levonorgestrel/EE <i>Setlakin</i>	Aurobindo Xiromed Teva Lupin Glenmark Mylan Northstar	EE 30 mcg x 84 days	Levonorgestrel 0.15 mg x 84 days

More . . .

<b>Products<sup>a,d</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<b>EXTENDED-CYCLE PILLS (cont.)</b>			
<i>Amethia</i> <i>Ashlyna</i> <i>Camrese</i> <i>Daysee</i> <i>Jaimiess</i> levonorgestrel/EE <i>Seasonique</i> <i>Simpesse</i>	Mayne Pharma Glenmark Teva Lupin Xiromed Mylan Teva branded Aurobindo	EE 30 mcg x 84 days, 10 mcg x 7 days	Levonorgestrel 0.15 mg x 84 days
<i>Beyaz<sup>c</sup></i> drospirenone/EE drospirenone/EE <sup>c</sup> <i>Gianvi</i> <i>Jasmiel</i> <i>Loryna</i> <i>Lo-Zumandimine</i> <i>Nikki</i> <i>Yaz</i>	Bayer Glenmark Lupin Teva Afaxys Xiromed Aurobindo Lupin Bayer	EE 20 mcg x 24 days	Drospirenone 3 mg x 24 days
<b>CONTINUOUS-CYCLE PILLS (no pill-free interval)</b>			
<i>Amethyst</i> levonorgestrel/EE	Teva Glenmark	EE 20 mcg	Levonorgestrel 90 mcg
<b>PROGESTIN-ONLY PILLS - “Mini-pill”</b>			
<i>Slynd</i>	Exeltis USA	Not applicable	Drospirenone 4 mg x 24 days
<i>Camila</i> <i>Deblitane</i> <i>Errin</i> <i>Heather</i> <i>Incassia</i> <i>Jencycla</i> <i>Nora-BE</i> norethindrone 0.35 mg norethindrone 0.35 mg norethindrone 0.35 mg <i>Norlyda</i> <i>Ortho Micronor</i> <i>Sharobel</i> <i>Tulana</i>	Mayne Pharma Northstar Mayne Pharma Glenmark Aurobindo Lupin Teva Lupin Mylan Glenmark Amneal Janssen Northstar Afaxys	Not applicable	Norethindrone 0.35 mg
<b>EMERGENCY CONTRACEPTION</b>			
<i>Ella</i>	HRA Pharma	Not applicable	Ulipristal 30 mg tablet (progesterone receptor modulator)
<i>EContra One Step</i> levonorgestrel <i>My Way</i> <i>New Day</i> <i>Opcicon One-Step</i> <i>Plan B One-Step</i> <i>Preventeza</i>	Afaxys Xiromed Lupin Northstar Sun Pharma Foundation Combe	Not applicable	Levonorgestrel 1.5 mg tablet x 1

More . . .

**NON-ORAL ALTERNATIVES TO ORAL CONTRACEPTION**

<b>Brand Name<sup>d</sup> Dose/Route/Cost<sup>l</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<i>Annovera</i> <sup>13,m</sup> WAC ~\$2,000  Vaginal ring inserted and left in for 3 weeks and removed for 1 week. Ring should be washed and can be reused for up to 13 cycles.	TherapeuticsMD	Ethinyl estradiol 13 mcg/day	Segesterone acetate 150 mcg/day
<i>Depo-Provera CF</i> <sup>3</sup> WAC ~\$210  Intramuscular (IM) injection in the gluteal or deltoid muscle once every 3 months (13 weeks)	Pfizer	None	Medroxyprogesterone acetate 150 mg
<i>Depo-subQ Provera 104</i> <sup>4,e</sup> WAC ~\$235  0.65 mL (104 mg) subcutaneous (SC) injection into the anterior thigh or abdomen, once every 3 months (12 to 14 weeks)	Pfizer	None	Medroxyprogesterone acetate 104 mg
<i>Kyleena</i> <sup>2</sup> (IUD) WAC ~\$955	Bayer	None	Levonorgestrel 17.5 mcg/day (after first 24 days of insertion), then reduces to 9.8 mcg/day after one year, and to 7.4 mcg/day after five years. Must be removed after 5 years.
<i>Liletta</i> <sup>12</sup> (IUD) WAC ~\$790	Allergan	None	Levonorgestrel ~20 mcg/day initially then to about 8.6 mcg/day after 6 years. Must be removed by the end of the sixth year.
<i>Mirena</i> <sup>6,g</sup> (IUD) WAC ~\$955	Bayer	None	Levonorgestrel 20 mcg/day for up to 5 years, then to about 10 mcg/day during year six.
<i>Nexplanon</i> <sup>5,f,h</sup> WAC ~\$935  Implanted subdermally just under the skin at the inner side of the non-dominant arm.	Merck	None	Etonogestrel 60 to 70 mcg/day (after about 5 to 6 weeks), then reduces to about 35 to 45 mcg/day at the end of the first year, to about 30 to 40 mcg/day at the end of the second year, and to about 25 to 30 mcg/day at the end of the third year. Must be removed after 3 years.

More...

<b>Brand Name<sup>d</sup> Dose/Route/Cost<sup>l</sup></b>	<b>Manufacturer</b>	<b>Estrogen</b>	<b>Progestin</b>
<i>NuvaRing</i> , <sup>7</sup> <i>EluRyng</i> , <sup>14</sup> ethinyl estradiol/etonogestrel vaginal ring (authorized generic of <i>NuvaRing</i> ) <sup>15</sup> WAC ~\$165 ( <i>NuvaRing</i> ); ~\$150 ( <i>EluRyng</i> ); ~\$140 (ethinyl estradiol/ etonogestrel) Vaginal ring inserted and left in for 3 weeks and removed for 1 week	Merck ( <i>NuvaRing</i> )  Amneal ( <i>EluRyng</i> )  Prasco Laboratories (ethinyl estradiol/ etonogestrel)	Ethinyl estradiol 15 mcg/day	Etonogestrel (active form of desogestrel) 0.12 mg/day
<i>ParaGard</i> (IUD) WAC ~\$885	Cooper Surgical	Non-hormonal, copper IUD	
<i>Phexxi</i> <sup>17</sup> (vaginal gel) WAC ~\$270  One applicatorful up to one hour before each episode of vaginal intercourse. Can be used during menstrual cycle.	Evofem Biosciences	Non-hormonal, lactic acid, citric acid, and potassium bitartrate vaginal gel	
<i>Skyla</i> <sup>8</sup> (IUD) WAC ~\$795	Bayer	None	Levonorgestrel 14 mcg/day (after first 24 days of insertion and declines to 5 mcg/day after 3 years)
<i>Twirla</i> <sup>16,o</sup> WAC ~\$55  Transdermal patch applied weekly (for 3 weeks, then week 4 is patch-free)	Agile Therapeutics	Ethinyl estradiol 30 mcg/day	Levonorgestrel 120 mcg/day
<i>Xulane</i> <sup>9,b</sup> WAC ~\$40  Transdermal patch applied weekly (for 3 weeks, then week 4 is patch-free)	Mylan	Ethinyl estradiol 35 mcg/day	Norelgestromin (active form of norgestimate) 150 mcg/day

- This grouping is not an indication of therapeutic equivalence for purposes of substitution as defined by the FDA's Orange Book. For therapeutic equivalence, consult the Orange Book (<https://www.accessdata.fda.gov/scripts/cder/ob/>).
- Body weight >90 kg may increase risk of unintended pregnancy.<sup>9</sup> Has been used continuously with 12 active patches in a row followed by 7-day patch-free interval.<sup>10</sup>
- Contains levomefolate (0.451 mg) in each tablet.

More . . .

- d. For information on which hormonal contraceptive to use, see our charts, [Choosing a Hormonal Contraceptive](#) and [Contraception for Women with Chronic Medical Conditions](#).
- e. FDA approved for use as a contraceptive and for management of pain associated with endometriosis.<sup>4</sup>
- f. Effectiveness rate in very overweight women (e.g., >130% of ideal body weight, BMI >35 kg/m<sup>2</sup>) unknown.<sup>5,11</sup>
- g. FDA approved for use as a contraceptive and to treat heavy menstrual bleeding in women who use an IUD for contraception.<sup>6</sup>
- h. *Implanon* was previously available in the U.S. *Implanon* and *Nexplanon* differ in insertion applicator and radio-opacity.
- i. Available as a softgel capsule. The four non-hormonal capsules each contain ferrous fumarate 75 mg.<sup>11</sup>
- j. Approved. Not marketed at time of publication.
- k. Contains 36.5 mg ferrous bisglycinate in each inactive tablet.
- l. Pricing based on wholesale acquisition cost (WAC). Medication pricing by Elsevier, accessed August 2020.
- m. Limited data available for women with a BMI >29 kg/m<sup>2</sup>. Women with BMI >29 kg/m<sup>2</sup> excluded from trials after reports of venous thromboembolism in this population.<sup>13</sup>
- n. *Caziant* and *Amethia Lo* have been discontinued. Products may be used through their latest available expiration dates of April 2021 (*Caziant*) and March 2021 (*Amethia Lo*).<sup>1</sup>
- o. Effectiveness of *Twirla* is reduced in women with a BMI ≥25 kg/m<sup>2</sup>. *Twirla* is contraindicated in women with a BMI ≥30 kg/m<sup>2</sup>, due to risk of venous thromboembolism.<sup>16</sup>

---

*Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.*

*More . . .*



**Project Leader in preparation of this clinical resource (360828):** Beth Bryant, Pharm.D., BCPS, Assistant Editor

### References

1. Verbal communication. Ashley (medical information). July 28, 2020. Mayne Pharma. Raleigh, NC 27609.
2. Product information for *Kyleena*. Bayer HealthCare Pharmaceuticals. Whippany, NJ 07981. March 2018.
3. Product information for *Depo-Provera CI*. Pfizer. New York, NY 10017. January 2017.
4. Product information for *Depo-subQ Provera 104*. Pfizer. New York, NY 10017. December 2019.
5. Product information for *Nexplanon*. Merck & Co. Whitehouse Station, NJ 08889. November 2019.
6. Product information for *Mirena*. Bayer HealthCare Pharmaceuticals. Whippany, NJ 07981. August 2020.
7. Product information for *NuvaRing*. Merck & Co. Whitehouse Station, NJ 08889. January 2020.
8. Product information for *Skyla*. Bayer HealthCare Pharmaceuticals. Whippany, NJ 07981. March 2018.
9. Product information for *Xulane*. Mylan Pharmaceuticals. Morgantown, WV 26505. April 2020.
10. Stewart FH, Kaunitz AM, Laguardia KD, et al. Extended use of transdermal norelgestromin/ethinyl estradiol: a randomized trial. *Obstet Gynecol* 2005;105:1389-96.
11. Product information for *Taytulla*. Allergan USA. Madison, NJ 07940. October 2019.
12. Product information for *Liletta*. Allergan USA. Irvine, CA 92612. October 2019.
13. Product information for *Annovera*. TherapeuticsMD. Boca Raton, FL 33431. January 2020.
14. Product information for *EluRyng*. Amneal Pharmaceuticals. Bridgewater, NJ 08807. May 2019.
15. Product information for etonogestrel/ethinyl estradiol vaginal ring. Prasco Laboratories. Mason, OH 45040. January 2020.
16. Product information for *Twirla*. Agile Therapeutics. Princeton, NJ 08540. February 2020.
17. Product information for *Phexxi*. Evofem Biosciences. San Diego, CA 92130. May 2020.

**Cite this document as follows:** Clinical Resource, *Comparison of Oral Contraceptives and Non-Oral Alternatives. Pharmacist's Letter/Prescriber's Letter. August 2020.*



pharmacist's letter™

Evidence and Recommendations You Can Trust...



prescriber's letter™



pharmacy technician's letter™

3120 West March Lane, Stockton, CA 95219 ~ TEL (209) 472-2240 ~ FAX (209) 472-2249

Copyright © 2020 by Therapeutic Research Center

Subscribers to the *Letter* can get clinical resources, like this one,  
on any topic covered in any issue by going to  
[pharmacist.therapeuticresearch.com](http://pharmacist.therapeuticresearch.com) ~ [prescriber.therapeuticresearch.com](http://prescriber.therapeuticresearch.com) ~  
[pharmacytech.therapeuticresearch.com](http://pharmacytech.therapeuticresearch.com)