

Estrogen and Progestin Hormone Doses in Combined Birth Control Pills

| Estrogen level ethinyl estradiol (micrograms) | Pill Brand Name | Progestin | Dose (mg) |
|--|------------------------|--|------------------|
| 20 mcgm | Alesse® | levonorgestrel | 0.10 |
| | Levlite® | levonorgestrel | 0.10 |
| | Loestrin 1/20® Fe | norethindrone acetate | 1.00 |
| | Mircette® | desogestrel | 0.15 |
| | Ortho Evra® (patch) | norelgestromin (norgestimate metabolite) | 0.15 |
| phasic 20/30/35 mcgm | Estrostep® Fe | norethindrone acetate | 1.0/1.0/1.0 |
| 30 mcgm | Levlen® | levonorgestrel | 0.15 |
| | Levora® | levonorgestrel | 0.15 |
| | Nordette® | levonorgestrel | 0.15 |
| | Lo/Ovral® | norgestrel | 0.30 |
| | Desogen® | desogestrel | 0.15 |
| | Ortho-Cept® | desogestrel | 0.15 |
| | Loestrin® 1.5/30 | norethindrone acetate | 1.50 |
| | Yasmin® | drospirenone | 3.0 |
| phasic 30/40/30 mcgm | Triphasil® | levonorgestrel | 0.05/0.075/0.125 |
| | Tri-Levlen® | levonorgestrel | 0.05/0.075/0.125 |
| | Trivora® | levonorgestrel | 0.05/0.075/0.125 |
| 35 mcgm | Ortho-Cyclen® | norgestimate | 0.25 |
| | Ovcon-35® | norethindrone | 0.40 |
| | Brevicon® | norethindrone | 0.50 |
| | Modicon® | norethindrone | 0.50 |
| | Necon® | norethindrone | 1.00 |
| | Norethin® | norethindrone | 1.00 |

| | | | |
|-------------------------|-----------------------|----------------------|-----------------|
| | Norinyl® 1/35 | norethindrone | 1.00 |
| | Ortho-Novum® 1/35 | norethindrone | 1.00 |
| | Demulen® 1/35 | ethynodiol diacetate | 1.00 |
| | Zovia® 1/35E | ethynodiol diacetate | 1.00 |
| phasic 35/35 mcgm | Ortho-Novum® 10/11 | norethindrone | 0.50/1.00 |
| | Jenest® | norethindrone | 0.50/1.00 |
| phasic 35/35/35 mcgm | Ortho-Tri-Cyclen® | norgestimate | 0.15/0.215/0.25 |
| | Ortho-Novum® 7/7/7 | norethindrone | 0.50/0.75/1.00 |
| | Tri-Norinyl® | norethindrone | 0.50/1.00/0.50 |
| 50 mcgm | Necon® 1/50 | norethindrone | 1.00 |
| | Norinyl® 1/50 | norethindrone | 1.00 |
| | Ortho-Novum® 1/50 | norethindrone | 1.00 |
| | Ovcon-50® | norethindrone | 1.00 |
| | Ovral® | norgestrel | 0.50 |
| | Demulen® 1/50 | ethynodiol diacetate | 1.00 |
| | Zovia® 1/50E | ethynodiol diacetate | 1.00 |

Which pills have higher progestin side effects or cause more acne and hair growth?

Each progestin has a different potency, milligram per milligram, in terms of progesterone effect to stop menstrual bleeding or androgen effect to stimulate acne and hair growth. However you must remember that a higher potency progestin may be used in a much smaller milligram dose and thus be equivalent to a larger milligram dose of a less potent progestin. For example, desogestrel is a very potent and androgenic progestin but its usual oral contraceptive dose is 0.15 mg instead of 1.00 mg for norethindrone. Its progestin potency compared to norethindrone would be $0.15 \times 9.0 = 1.35$ times. For androgenicity, it would be $0.15 \times 3.4 = .51$ or half as androgenic as a pill containing 1 mg of norethindrone.

Progestin Potency of Different Oral Contraceptive Progestins*

| Progestin | Progestational Activity (relative to 1 mg of norethindrone) | Androgenic Activity (relative to 1 mg of norethindrone) |
|----------------------------|--|--|
| norethindrone 1 mg | 1.0 | 1.0 |
| norethindrone acetate 1 mg | 1.2 | 1.6 |
| ethynodiol diacetate 1 mg | 1.4 | 0.6 |
| levonorgestrel 1 mg | 5.3 | 8.3 |
| dl-norgestrel 1 mg | 2.6 | 4.2 |
| norgestimate 1 mg | 1.3 | 1.9 |
| norelgestromin 1 mg | 1.3 | 1.9 |
| desogestrel 1 mg | 9.0 | 3.4 |
| drospirenone 1 mg | 1.5 | 0.0 |

What pills would be better for ...?

In order to classify an oral contraceptive as an estrogen dominant, progestin dominant or androgenic pill, you must multiply the actual dose of the components times the relative potency of that component. Keep in mind that these are relative classification and do not always hold from one woman to another. For different oral contraceptive side effects, you might consider switching to the pills indicated in the table below to minimize those side effects.

Current Pill Problems and Choice of Pill to Switch To

| Side Effect/ Problem | Principal | Pill Suggestions |
|-------------------------------------|---|--|
| Acne | higher estrogen, lower androgen potency | Yasmin®, Demulen® 1/50, Othro-Tri Cyclen®, Ortho-Cyclen®, Yasmin®, Brevicon®, Modicon®, Necon®, Ortho Evra®, Mircette® |
| Break-through bleeding | higher estrogen, higher progestin potency, lower androgen potency | Yasmin®, Demulen® 1/50, Zovia® 1/50E, Ovcon® 50, Desogen®, Ortho-Cept®, Estrostep® Fe, Loestrin® 1/20 |
| Absent or too light menstrual flow | higher estrogen, lower progestin potency | Ortho-Cyclen®, Ovcon® 35, Brevicon®, Modicon®, Necon® 1/50, Norinyl® 1/50, Ortho-Novum® 1/50, Necon® 1/35, Norinyl® 1/35, Ortho-Novum® 1/35, |
| Depression | lower progestin potency | Ortho Evra®, Ovcon® 35, Ortho-TriCyclen®, Othro-Cyclen®, Brevicon®, Modicon®, Necon® 1/35, Alesse®, Levlite®, Tri-Levlen®, Triphasil®, Trivora® |
| Moodiness or irritability | lower progestin potency | Ortho Evra®, Ovcon® 35, Ortho Tri-Cyclen®, Othro-Cyclen®, Brevicon®, Modicon®, Necon® 1/35, Alesse®, Levlite®, Tri-Levlen®, Triphasil®, Trivora® |
| Headaches (not menstrual migraines) | lower estrogen, lower progestin potency | Ortho Evra®, Alesse®, Levlite®, |

| | | |
|---|---|--|
| Breast soreness | lower estrogen, lower progestin potency | Yasmin®*, Ortho Evra®, Alesse®, Levlite®, Loestrin® 1/20 Fe, any lower estrogen pill than currently on |
| Weight gain | lower estrogen, lower progestin potency | Yasmin®*, Ortho Evra®, Alesse®, Levlite®, Loestrin® 1/20 Fe, any lower estrogen pill than currently on |
| Severe menstrual cramps | higher progestin potency | Yasmin®, Desogen®, Ortho-Cept®, Mircette®, Loestrin® 1.5/30, Demulen® 1/35, Zovia® 1/35E, Demulen® 1/50, Zovia® 1/50E |
| Endometriosis or endometriosis prevention | lower estrogen, higher progestin potency, higher androgen potency | Loestrin® 1.5/30, Loestrin® 1/20 Fe, LoOvral®, Levlen®, Levora®, Nordette®, Demulen® 1/35, Zovia® 1/35, (used either continuously with zero days of placebo pills or with only 4 days of placebo pills for prevention) |

* - The progestin has anti-water retention properties