What is combined hormonal contraception?

Birth control which contains two hormones like those made by a woman's ovaries—estrogen and progesterone.

How do they work?

Hormonal contraception works to prevent pregnancy primarily by suppressing ovulation (the release of an egg). The hormones also make cervical mucus less permeable to sperm and make the uterine lining unsuitable for the implantation of a fertilized egg.

How effective are they?

The pill and ring are all about 99% effective in preventing pregnancy, IF used as directed!

How safe are they?

Today's hormonal contraception is very safe. For example, for most women, it is safer to take the Pill than it is to carry and deliver a baby. In women between 15 and 24 years of age, the number of deaths per 100,000 women per year is:

- 7.0 - 7.4, for women with no contraceptive method (these are pregnancy related deaths)
- 0.3 - 0.5, for women on the Pill who do not smoke
- 2.2 - 3.4, for women on the Pill who are smokers.

All of the above risks increase with age, but compare it with the chance of death when driving a car: 16 in 100,000 per year.

What are the possible health benefits from taking hormones?

Women using hormonal contraception often have more regular, lighter, and shorter periods. Some women feel their sex life improves because they worry less about becoming pregnant. Specific health benefits of hormones include a decrease in the rate of:

- painful menstrual cramps
- ovarian cysts
- iron deficiency anemia that results from heavy menses
- pelvic inflammatory disease (PID), which can lead to infertility
- ectopic pregnancy
- cancer of the ovaries and lining of the uterus
- rheumatoid arthritis
- acne.
What are the possible risks associated with taking hormones?

Serious problems do not occur very often. However, it is important to be aware of the four major risks associated with hormonal contraception:

1. **Development of blood clots.** They are rare but may occur in large blood vessels in various parts of the body, causing potentially serious effects and even death. Woman on hormones who undergo major surgery requiring immobilization seem to have a greater risk of developing blood clots. Talk to your doctor about stopping hormones before a scheduled major operation. *In addition, when taking long airplane flights and sitting for long periods of time there may be an increased risk of developing a blood clot. Therefore during those trips, remember to exercise your legs every 2 hours and stay well hydrated by drinking non-caffeinated, non-alcoholic drinks.*

2. **Heart attacks and strokes.** Diabetes, high cholesterol, high blood pressure, and especially smoking increase these possibilities.
   - Any woman who smokes should seriously consider quitting. Women over 35 who smoke 15 or more cigarettes a day should not take hormones.
   - Let your health care provider know if you have diabetes, high cholesterol or high blood pressure prior to starting hormones.
   - Very rarely, a significant increase in blood pressure can develop in woman on hormones. Be sure to have your blood pressure checked after about three months of starting hormones, then yearly after that. If high blood pressure does develop, stopping hormones often brings it back to normal.

3. **Gall bladder disease.** Although hormonal contraception does not seem to affect the overall risk of developing gall bladder disease, it may bring on gall bladder problems at a younger age for women who are already susceptible to the disease.

4. **Liver tumors.** Hormone users have an increased risk of developing a very rare benign liver tumor called a hepatocellular adenoma. Jaundice (yellowing of the skin or eyes) should be reported to your health care provider.

What are the early warning signs of serious problems?

Serious problems associated with hormones are rare and usually have warning signs. It is essential that you notify your health care provider as soon as possible if you experience any of the following signs of a blood clot:

- **A:** severe abdominal pain
- **C:** severe chest pain or shortness of breath
- **H:** severe headaches
- **E:** eye problems such as blurred vision, blind spots, flashing lights
- **S:** severe and persistent leg pain in the calf or thigh

Also inform your health care provider about any onset of depression or yellowing of the skin or eyes (a sign of jaundice).
What are the possible side effects?
If minor side effects do occur, they are usually temporary and usually clear up within 3 months of hormone use. If such side effects persist, talk to your health care provider; a change in hormone type might be recommended.

- Nausea and rarely vomiting. If this occurs, take your hormones with food or at bedtime.
- Bleeding between menstrual periods, called break through bleeding
- Little or no menstrual flow at the time of your expected menses
- Breast fullness and/or tenderness
- Weight gain or loss (most weight changes are unrelated to hormones)
- Mood changes, depression or decreased sex drive
- Darkening of skin pigment on the face, particularly with prolonged sun exposure this is not dangerous, but is occasionally permanent.

Who should not take hormones?
Women who:
- smoke more than 15 cigarettes a day and are over 35 years old
- have had blood clots in blood vessels (thrombus or embolus)
- have had a heart attack, stroke, coronary artery disease or angina (chest pain)
- have unexplained bleeding from the vagina
- have known or suspected cancer of the breast, uterus, cervix, or vagina
- have a sever liver disease or history of a liver tumor
- think they might be pregnant.

It is important to furnish your health care provider with your complete health care history.

Women may be eligible to use hormones but will require close medical supervision if they have:
- Diabetes
- Abnormal breast x-ray (mammogram) or an undiagnosed breast lump
- Elevated blood cholesterol or triglycerides
- High blood pressure
- Migraine headaches
- Depression
- Gallbladder or kidney disease
- History of scanty or irregular menstrual periods.

What are some myths about hormones?
There are many myths about hormones. Here are some important facts. Hormones:
- Do not cause birth defects
- Do not stunt growth
- Do not cause weight gain
- Do not harm future ability to have children
- Do not have to be stopped so the body can rest
- Can be used while breastfeeding after milk production is firmly established
- Do not protect you against sexually transmitted diseases (STD's).
How do I get started on birth control or get a prescription for hormones?

In much of the world, Pills are available over-the-counter without a prescription. In the U.S., you need a prescription. To obtain a prescription for pills, patch or ring you will need to schedule an appointment at the Gynecology Clinic. Your health care provider will ask you questions about your present and past medical history and your family health history to determine if there are any reason you should not take hormones. We also recommend a complete gynecology exam during which lab tests including a Pap smear and other tests may be collected. You may be able to start on a birth control method prior to having a pelvic exam—call Student Health for more information.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>THE PILL</th>
<th>NUVARING</th>
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<tbody>
<tr>
<td>Who can use them?</td>
<td>Anyone who can take combination hormones.</td>
<td>Anyone who can take combination hormones.</td>
</tr>
<tr>
<td>What's the advantage of method?</td>
<td>Easy to use pill packs.</td>
<td>Don't have to remember to take a pill every day.</td>
</tr>
<tr>
<td>What are the disadvantages?</td>
<td>Need to remember to take a pill every day.</td>
<td>Can fall out (~2-3%) &amp; increased normal vaginal discharge.</td>
</tr>
<tr>
<td>How effective are they?</td>
<td>About 99% when taken correctly.</td>
<td>About 99% when used correctly.</td>
</tr>
<tr>
<td>How do I get started on the method?</td>
<td>Pill packs come with 28 pills, 21 pills with active ingredients (estrogen/progesterone) &amp; 7 &quot;reminder&quot; or placebo pills. Start the first pack &amp; take the first &quot;active&quot; pill, on the <strong>Sunday after your period begins or on the first day of your period</strong>. Take one pill every day at about the <strong>same time each day</strong>. Repeat each month.</td>
<td>Inset the ring on the first day of your period or up to 4 days later. Leave the ring in place for exactly 3 weeks or 21 days, then remover it for 7 days. Insert a new ring on the 8th day. Repeat each month.</td>
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<tr>
<td>Do I need to use a back-up birth control or another method of birth control when I first start using a hormonal contraceptive?</td>
<td>Yes, the pill is not immediately effective! It is important to use a good back-up method of birth control for the first 7 days of the first pack. Good back-ups include condoms, diaphragm, contraceptive foam, cream, jelly, or film.</td>
<td></td>
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<td></td>
<td>Yes, the ring is not immediately effective! It is important to use a good back-up method of birth control for the first 7 days of the first ring. Good back-ups include condoms, diaphragm, contraceptive foam, cream, jelly, or film.</td>
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# INSTRUCTIONS FOR MISSED COMBINED BIRTH CONTROL PILLS

<table>
<thead>
<tr>
<th># of pills missed:</th>
<th>One pill</th>
<th>Two pills</th>
<th>Three or more pills</th>
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<tbody>
<tr>
<td><strong>Pill Pack:</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Week 1</strong></td>
<td>Take the missed pill as soon as you remember and take a second pill at your regular time. (This may mean taking 2 pills at once.) Use a backup method x 7 days. If you had intercourse without a condom in the last 120 hours, take Plan B. Continue to take 1 pill each day thereafter.</td>
<td>Take 2 pills as soon as you remember &amp; use a backup method x 7 days. If you had intercourse without a condom in the last 120 hours take Plan B. Continue to take 1 pill each day thereafter.</td>
<td>Take 2 pills as soon as you remember &amp; use a backup method x 7 days. If you had intercourse without a condom in the last 120 hours take Plan B. Continue to take 1 pill each day thereafter.</td>
</tr>
<tr>
<td><strong>Week 2</strong></td>
<td>Take the missed pill as soon as you remember and take a second pill at your regular time. (This may mean taking 2 pills at once.) Use a backup method x 7 days. Continue to take 1 pill each day thereafter.</td>
<td>Take 2 pills as soon as you remember &amp; use a backup method x 7 days. Continue to take 1 pill each day thereafter.</td>
<td>Take 2 pills as soon as you remember &amp; use a backup method x 7 days. If you had intercourse in the last 120 hours take Plan B. Continue to take 1 pill each day thereafter.</td>
</tr>
<tr>
<td><strong>Week 3</strong></td>
<td>Take the missed pill as soon as you remember and take a second pill at your regular time. (This may mean taking 2 pills at once.) Use a backup method x 7 days. Continue to take 1 pill each day thereafter.</td>
<td>Take 2 pills as soon as you remember &amp; use backup method x 7 days. Continue to take 1 pill each day thereafter.</td>
<td>Skip the rest of the pills in the pack, start a new pack of pills &amp; use a backup method x 7 days. If you had intercourse without a condom in the last 120 hours take Plan B.</td>
</tr>
<tr>
<td><strong>Week 4</strong></td>
<td>These pills do not contain any active hormones or ingredients. Be sure to start your next pack on time.</td>
<td>These pills do not contain any active hormones or ingredients. Be sure to start your next pack on time.</td>
<td>These pills do not contain any active hormones or ingredients. Be sure to start your next pack on time.</td>
</tr>
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</table>

*It is not unusual to have spotting if you miss pills.

**Pill Reminder Tips**

1. Associate your pill taking with another daily activity such as brushing your teeth.
2. Set your cell phone alarm to remind you to take your pills. Pick a time when you are always awake.
3. Check your pack of pills each morning to ensure you took yesterday's pill.

**Nuva Ring Tips**

1. While it is rare, the Nuva Ring can fall out. If the ring falls out and it has been less than 3 hours, rinse the ring with warm water & re-insert it. If the ring has been out more than 3 hours, rinse the ring with warm water & re-insert the ring. You will need to use a backup method for 7 days. If the ring has been out for more than 3 hours during first two weeks of use and you have had intercourse without a condom in the past 120 hours, take Plan B.
When will my menstrual period occur once I am on hormonal contraceptives?

Your menstrual period will usually begin one to three days after you take your last active hormone Pill, remove the third Patch, or remove the Ring on Day 21, or it may start several days later.

What if I miss a period after taking my Pills or using the Ring?

If you do not have any menstrual bleeding after taking all of the hormonal pills correctly in a pack, using 3 patches, or the ring for 21 days, do not worry, start your next month on schedule. If you have no bleeding after a second month, call the clinic for a check-up. This probably means you could use a different brand of Pill or a different hormonal method (not necessarily a higher dose). In most cases this does not mean you are pregnant.

If you have not used your Pills or Ring correctly, or if there is a reason to suspect pregnancy, do not start another month if you do not have a period as expected. Call for an appointment for evaluation.

What if I bleed between periods?

1. Bleeding between periods may occur while using the hormones. This is called breakthrough bleeding (BTB) and is especially common if you forget to take a Pill, or if one is taken late, or if the Patch falls off or Ring falls out. It is not serious. The bleeding may take the form of light spotting or may be as heavy in flow as your menstrual period.

2. If you are taking the Pill, breakthrough bleeding can be stopped by “doubling up” on the Pills. To do this, open an extra pack of Pills and take one of the hormonal Pills (the same color as the one you are taking that day from your regular pack). Take this extra Pill at the time you notice the BTB or as soon as is reasonably possible.
   - Take your regular Pill on schedule that day.
   - It may be necessary to double-up for several days; this is perfectly safe to do. Try not to take both Pills at the same time to avoid possible nausea. If, despite doubling-up, the bleeding becomes as heavy as during your usual menstruation, stop taking all Pills. Start a new pack on the next Sunday. Use additional contraception for the first 7 days.

Does the Pill or Ring interact with any other medications?

Only a few medications have been proven to decrease the effectiveness of hormonal contraception. Anti-seizure medications such as Dilantin, carbamazepine, valproic acid and barbiturates are the most commonly used of those medications. If you take anti-seizure medications, the dose of your hormonal contraception may need to be adjusted. Be sure to inform your health care provider if you take those medications.

Among antibiotics, only Rifampin (used for tuberculosis and meningitis) has been proven to decrease Pill effectiveness. Although research has shown that short courses of other antibiotics (such as those used for 3 to 14 days for minor infections) do not increase the risk for pregnancy when Pills, Patch or Ring are used perfectly, perfect use is sometimes not possible. Therefore we recommend that you always use a back-up method of birth control while you are on the antibiotic and for the rest of that cycle. Long term use of lower doses of antibiotics (as commonly taken for acne) does not have the same risk. Remember, however, to inform your dermatologist that you are using hormonal contraception.
What if I want to stop using hormonal contraception?

It is best not to stop and start hormones over short periods of time as this may cause menstrual cycle irregularity and spotting and you won’t be protected from pregnancy. If you do discontinue hormones, it is best to stop at the end of a pack, after the 3\textsuperscript{rd} Patch, or after Day 21 on the Ring. After discontinuing hormones, it may take six to eight weeks (occasionally longer) to have a normal spontaneous menstrual period.

When should I return to clinic for an appointment?

When you start hormones, you will be given a prescription for 3 or 4 months of birth control. You will be asked to make an appointment to return to the clinic during your third month for a follow-up visit. At this time, we will assess your response to the hormones, check your blood pressure, and answer any questions you may have. If all is well, you will be given a new prescription to last until your next annual exam is due.

You should have a routine gynecological exam and screening tests for sexually transmitted infections every 12 months, or as recommended by your health care provider. Your prescription may be renewed at that time. Please try to schedule your appointments so that you do not run out of birth control. This is most easily accomplished if you call to schedule your appointment when you begin your next to last month of birth control (6 to 8 weeks before your annual exam is due).

How do I get my prescription for the Pill or Ring refilled?

Your prescription is usually refillable for a specific number of times. When you go to obtain a refill, you must return to the pharmacy from which you originally purchased your birth control. If you need to have your prescription filled elsewhere, discuss this with your pharmacist. In some cases, it will not be possible to transfer prescriptions, so always try to have enough birth control with you if you plan to be away.

What if I have any questions or concerns after I have started my birth control?

Call the Student Health Gynecology Clinic at (434) 924-2773 and ask to speak with the triage nurse. She will address your questions or concerns by phone or schedule you for an appointment with a health care provider if necessary.
QUIZ
ARE YOU PREPARED TO USE THE PILL OR RING?

1. How do pills or Nuva Ring work to prevent pregnancy?
2. When in the menstrual cycle should contraceptive hormones (pill, ring) be started?
3. When do the contraceptive hormonal methods become effective for pregnancy prevention after they are started?
4. Under what circumstances might your birth control not be effective?
5. What are some good back-up methods of birth control? When should you use a back-up method of birth control?
6. Why is it important to take your pills on time?
7. If you are taking the pill, what should you do if you miss one pill in your pack? Two pills? More than two pills?
8. If you are using the ring, what should you do if the ring falls out and it has been less than 3 hours? More than 3 hours?
9. What should you do if you have any reason for concern that your hormonal method of contraception might not be protective under particular circumstances?
10. What are possible benefits of hormonal contraception?
11. What are some minor side effects that may occur during the first few months of hormonal contraceptive use?
12. What are the serious health problems occasionally associated with hormone use?
13. What are the early symptoms, or ACHES warning signs, of serious health problems that, if experienced while taking hormones, should be reported immediately to your health care provider?
14. Why is it recommended to stop smoking while taking hormones?