

NAME-AFABOR MARIAN OGHENERIME

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ASSIGNMENT TITLE- DISCUSS CONTRACEPTION AND DIFFERENT
TYPES WITH DETAILS OF ANY FIVE.

What is contraception?

Contraception is a way to prevent pregnancy. Although different contraception methods work in different ways, contraception generally prevents sperm from reaching and fertilizing an egg which is how a pregnancy starts.

Different types of contraception

1. Long-Acting Reversible Contraception (LARC)

Long-acting reversible contraception (LARC) is a contraceptive that lasts for a long time.

Intrauterine Methods

An intrauterine device (IUD), also known as an intrauterine system (IUS), is a small, T-shaped device that is inserted into the uterus to prevent pregnancy. A health care provider inserts the device. An IUD can remain in place and function effectively for many years at a time. After the recommended length of time, or when the woman no longer needs or desires contraception, a health care provider removes or replaces the device.

- A hormonal IUD or IUS releases a progestin hormone (levonorgestrel) into the uterus. The released hormone causes thickening of the cervical mucus, inhibits sperm from reaching or fertilizing the egg, thins the uterine lining,

and may prevent the ovaries from releasing eggs. The failure rate of a hormonal IUS is less than 1%; however, a small percentage of women may experience expulsion of the device and have to have it reinserted. Some research also suggests that these IUDs maintain their effectiveness up to a year beyond their recommended use period.⁴ This method may also be used to treat heavy menstrual bleeding because the hormone often reduces or eliminates uterine bleeding.

- A copper IUD prevents sperm from reaching and fertilizing the egg, and it may prevent the egg from attaching in the womb. If fertilization of the egg does occur, the physical presence of the device prevents the fertilized egg from implanting into the lining of the uterus. The failure and expulsion/reinsertion rates of a copper IUD is similar to those of a hormonal IUD. Copper IUDs may remain in the body for 10 years. A copper IUD is not recommended for women who may be pregnant, have pelvic infections, or had uterine perforations during previous IUD insertions. It also is not recommended for women who have cervical cancer or cancer of the uterus, unexplained vaginal bleeding, or pelvic tuberculosis. Currently, ParaGard® is the only FDA-approved copper IUD.

Implants are implantable rods. Each rod is matchstick-sized, flexible, and plastic. The method has a failure rate of less than 1%. A physician surgically inserts the rod under the skin of the woman's upper arm. The rod releases a progestin and can remain implanted for up to 5 years. Currently, Implanon® and Nexplanon®, which release etonogestrel, are the only implantable rods available in the United States. A two-rod method, Jadelle®, which releases levonorgestrel, is FDA approved but not currently distributed in America. A new levonorgestrel-releasing, two-rod method, Sino-implant (II) ®, is in clinical development.

2. HORMONAL METHODS

Short-Acting Hormonal Methods

Hormonal methods of birth control use hormones to regulate or stop ovulation and prevent pregnancy. Ovulation is the biological process in which the ovary releases an egg, making it available for fertilization. Hormones can be introduced into the body through various methods, including pills, injections, skin patches, transdermal

gels, vaginal rings, intrauterine systems, and implantable rods. Depending on the types of hormones that are used, these methods can prevent ovulation; thicken cervical mucus, which helps block sperm from reaching the egg; or thin the lining of the uterus. Health care providers prescribe and monitor hormonal contraceptives. Short-acting hormonal methods (e.g., injectable, pills, patches, rings) are highly effective if used perfectly, but in typical use, they have a range of failure rates.

- **Injectable birth control.** This method involves injection of a progestin, Depo-Provera® (depot medroxyprogesterone acetate [DMPA]), given in the arm or buttocks once every 3 months.⁵ This method of birth control can cause a temporary loss of bone density, particularly in adolescents. However, this bone loss is generally regained after discontinuing use of DMPA. Most patients using injectable birth control should eat a diet rich in calcium and vitamin D or take vitamin supplements while using this medication. A new self-injectable formulation of DMPA, Sayana® Press, is approved in the United Kingdom and is expected to be approved more widely in the near future. This subcutaneous injectable product has a lower amount of hormone and may be more acceptable for some users.
- **Progestin-only pills (POPs).** A woman takes one pill daily, preferably at the same time each day. POPs may interfere with ovulation or with sperm function. POPs thicken cervical mucus, making it difficult for sperm to swim into the uterus or to enter the fallopian tube. POPs alter the normal cyclical changes in the uterine lining and may result in unscheduled or breakthrough bleeding. These hormones do not appear to be associated with an increased risk of blood clots.

Combined Hormonal Methods

Combined hormonal methods contain a synthetic estrogen (ethinyl estradiol) and one of the many progestins approved in the United States. All of the products work by inhibiting ovulation and thickening cervical mucus. The combined estrogen/progestin drugs can be delivered by pills, a patch, or a vaginal ring. The combined hormonal methods have some medical risks, such as blood clots, that are associated with the synthetic estrogen in the product. These risks have not been observed with progestin-only hormonal methods such as injectable birth control, POPs, or hormonal LARCs.

Combined oral contraceptives (COCs, "the pill"). COCs contain a synthetic estrogen and a progestin, which functions to inhibit ovulation. A woman takes one pill daily, preferably at the same time each day. Many types of oral contraceptives are available, and a health care provider helps to determine which type best meets a woman's needs.

Contraceptive patch. This is a thin, plastic patch that sticks to the skin and releases hormones through the skin into the bloodstream. The patch is placed on the lower abdomen, buttocks, outer arm, or upper body. A new patch is applied once a week for 3 weeks, and no patch is used on the fourth week to enable menstruation.³ Currently, Ortho Evra® is the only patch that is FDA approved.

Vaginal ring. The ring is thin, flexible, and approximately 2 inches in diameter. It delivers a combination of ethinyl estradiol and a progestin. The ring is inserted into the vagina, where it continually releases hormones for 3 weeks. The woman removes it for the fourth week and reinserts a new ring 7 days later. Risks for this method of contraception are similar to those for the combined oral contraceptive pills. A vaginal ring may not be recommended for women with certain health conditions, including high blood pressure, heart disease, or certain types of cancer.⁶ Currently, the NuvaRing® is the only FDA-approved vaginal ring. A new contraceptive vaginal ring that can be used for 13 cycles is under clinical development.

3. BARRIERS METHODS

Designed to prevent sperm from entering the uterus, barrier methods are removable and may be an option for women who cannot use hormonal methods of contraception. Failure rates for barrier methods differ depending on the method. Types of barrier methods that do not require a health care provider visit include the following:

Male condoms. This condom is a thin sheath that covers the penis to collect sperm and prevent it from entering the woman's body. Male condoms are generally made of latex or polyurethane, but a natural alternative is lambskin (made from the intestinal membrane of lambs). Latex or polyurethane condoms reduce the risk of spreading sexually transmitted diseases (STDs). Lambskin condoms do not prevent STDs. Male condoms are disposed of after a single use.

Female condoms. These are thin, flexible plastic pouches. A portion of the condom is inserted into a woman's vagina before intercourse to prevent sperm from entering

the uterus. The female condom also reduces the risk of STDs. Female condoms are disposed of after a single use.

Contraceptive sponges. These are soft, disposable, spermicide-filled foam sponges. One is inserted into the vagina before intercourse. The sponge helps block sperm from entering the uterus, and the spermicide also kills the sperm cells. The sponge should be left in place for at least 6 hours after intercourse and then removed within 30 hours after intercourse. Currently, the Today® Vaginal Contraceptive Sponge is the only sponge approved by the FDA.

Spermicides. A spermicide can kill sperm cells. A spermicide can be used alone or in combination with a diaphragm or cervical cap. The most common spermicidal agent is a chemical called nonoxynol-9 (N-9). It is available in several concentrations and forms, including foam, jelly, cream, suppository, and film. A spermicide should be inserted into the vagina close to the uterus no more than 30 minutes prior to intercourse and left in place 6 to 8 hours after intercourse to prevent pregnancy. Spermicides do not prevent the transmission of STDs and may cause allergic reactions or vaginitis.

4. EMERGENCY CONTRACEPTION

Emergency contraception can be used after unprotected intercourse or if a condom breaks.

Copper IUD. The copper IUD is the most effective method of emergency contraception. The device can be inserted within 120 hours of unprotected intercourse. The method is nearly 100% effective at preventing pregnancy and has the added benefit of providing a highly effective method of contraception for as long as the device remains in place. There are very few contraindications to use of the copper IUD, and there are no issues related to weight or obesity associated with the effectiveness of the method.

Emergency contraceptive pills (ECPs) are hormonal pills, taken either as a single dose or two doses 12 hours apart, that are intended for use in the event of unprotected intercourse. If taken prior to ovulation, the pills can delay or inhibit ovulation for at least 5 days to allow the sperm to become inactive. They also cause thickening of cervical mucus and may interfere with sperm function. ECPs should be taken as soon as possible after semen exposure and should not be used as a regular contraceptive

method. Pregnancy can occur if the pills are taken after ovulation or if the woman has unprotected sex in the same cycle.

5. STERILIZATION

Sterilization is a permanent form of birth control that either prevents a woman from getting pregnant or prevents a man from releasing sperm. A health care provider must perform the sterilization procedure, which usually involves surgery. These procedures usually are not reversible.

A sterilization implant is a nonsurgical method for permanently blocking the fallopian (pronounced fuh-LOH-pee-uhn) tubes. A health care provider threads a thin tube through the vagina and into the uterus to place a soft, flexible insert into each fallopian tube. No incisions are necessary. During the next 3 months, scar tissue forms around the inserts and blocks the fallopian tubes so that sperm cannot reach an egg. After 3 months, a health care provider conducts tests to ensure that scar tissue has fully blocked the fallopian tubes. A backup method of contraception is used until the tests show that the tubes are fully blocked.

Tubal ligation (pronounced TOO-buhl lahy-GEY-shuhn) is a surgical procedure in which a doctor cuts, ties, or seals the fallopian tubes. This procedure blocks the path between the ovaries and the uterus. The sperm cannot reach the egg to fertilize it, and the egg cannot reach the uterus.

Vasectomy (va-SEK-tuh-mee) is a surgical procedure that cuts, closes, or blocks the vas deferens (pronounced vas DEF-uh-renz). This procedure blocks the path between the testes and the urethra (yoo-REE-thruh). The sperm cannot leave the testes and cannot reach the egg. It can take as long as 3 months for the procedure to be fully effective. A backup method of contraception is used until tests confirm that there is no sperm in the semen.

2. Give Examples Of The Types Of Contraceptives And Major On Any Five.

1. Cap
2. Combined pill
3. Condoms
4. Contraceptive implant
5. Contraceptive injection
6. Contraceptive patch
7. Diaphragm
8. Female condoms
9. Female sterilization
10. IUD (intrauterine device, coil)
11. IUS (intrauterine system)
12. Progestogen-only pill (POP, mini pill)
13. Vaginal ring
14. Vasectomy
15. Natural family planning (fertility awareness)

1. Cap

A woman can get pregnant if a man's sperm reaches one of her eggs (ova). Contraception tries to stop this happening by keeping the egg and sperm apart or by stopping egg production. One method of contraception is the cap. The contraceptive cap is a circular dome made of thin, soft silicone. It's inserted into the vagina before sex, and covers the cervix so that sperm cannot get into the womb. You need to use spermicide with it (spermicide kills sperm). The cap must be left in place for six hours after sex. After that time, you take out the cap and wash it. Caps are reusable. They come in different sizes, and you must be fitted for the correct size by a trained doctor or nurse.

How the cap works

A cap, like a diaphragm, is a barrier method of contraception. It fits inside your vagina and prevents sperm from passing through the entrance of your womb (the cervix). At present only one brand of cap is available in the UK, Femcap. Femcaps are soft, thin domes made of silicone, and come in three sizes.

About 80% of women find a Femcap that fits them. You can get a cap at some GP surgeries, sexual health clinics and some young people's services.

To be effective in preventing pregnancy, the cap needs to be used in combination with spermicide, which is a chemical that kills sperm. You only need to use a cap when you have sex. You must leave it in for at least six hours after the last time you have sex. You can leave it in for up to 48 hours. For the best protection against STIs it's advised that you use a condom as well.

Inserting a contraceptive cap

Your doctor or nurse will show you how to put in a cap. Caps come with instructions and are all inserted in a similar way:

With clean hands, fill one-third of the cap with spermicide, but do not put any spermicide around the rim, as this will stop the cap staying in place. Femcap has a groove between the dome and the rim – some spermicide should also be placed there. Squeeze the sides of the cap together and hold it between your thumb and first two fingers. Slide the cap into your vagina, upwards. The cap must fit neatly over your cervix – it stays in place by suction. Some women squat while they put their cap in, while others lie down or stand with one foot up on a chair – use the position that's easiest for you. You can insert a cap up to three hours before you have sex – after this time, you will need to take it out and put some more spermicide on it. When you are fitted with a cap you will be asked to practice with at home. This gives you the chance to learn how to use it properly, see how it feels and find out if the method is suitable for you. Until you are confident you're using the cap correctly, you might need to use additional contraception, such as condoms, when you have sex. When you go back for a follow-up appointment with your doctor or nurse, wear the cap so they can check that it is the right size and you have put it in properly.

Removing a Femcap

A Femcap can be easily removed by gently hooking your finger under its rim, loop or strap and pulling it downwards and out. You must leave your cap in place for at least 6 hours after the last time you had sex. Sperm can survive up to 6 hours in the vagina so if the barrier is removed too early, you increase your chances of pregnancy. You can leave a Femcap in for longer than this, but don't leave it in for longer than the recommended maximum time of 48 hours.

Looking after your cap

After use, you can wash your cap with warm water and mild, unperfumed soap. Rinse it thoroughly, then leave to dry. You will be given a small container for it, which you should keep in a cool, dry place.

Never boil a cap.

Your cap may become discolored over time, but this doesn't make it less effective. Always check your cap for any signs of damage before using it. You can visit your GP or nurse when you want to replace your cap. Most women can use the same cap for a year before they need to replace it. You may need to get a different sized cap if you have a baby, miscarriage or abortion.

A cap may be less effective if;

It is damaged – for example, it is torn or has holes

It is not the right size for you

You use it without spermicide

You do not use extra spermicide with your cap every time you have more sex

You remove it too soon (less than six hours after the last time you had sex)

If any of these things happen, or you have had sex without contraception, you may need emergency contraception. You can use a cap after having a baby, but you may need a different size. It is recommended that you wait at least six weeks after giving birth before using a contraceptive cap. You can use a cap after a miscarriage or abortion, but you may need a different size.

Advantages and Disadvantages of the Cap

A cap has the following advantages:

You only need to use it when you want to have sex

You can put it in at a convenient time before having sex (do not forget to use extra spermicide if you have it in for more than three hours)

There are no serious associated health risks or side effects

A cap has the following disadvantages:

It is not as effective as other types of contraception

It only provides limited protection against STIs

It can take time to learn how to use a cap

Putting a cap in can interrupt sex

Cystitis (bladder infection) can be a problem for some women who use a cap

Spermicide can cause irritation in some women and their sexual partners

Risks of the cap

There are no serious health risks associated with using a contraceptive cap.

2. COMBINED PILLS

The combined oral contraceptive pill is usually just called “the pill”. It contains synthetic female hormones, estrogen and progesterone. These hormones are produced naturally in woman's ovaries. The hormones in the pill prevent a woman's ovaries from releasing an egg (ovulating). They also make it difficult for sperm to reach an egg, or for an egg to implant itself in the lining of the womb.

The pill is usually taken to prevent pregnancy, but can also be used to treat painful periods, heavy periods, premenstrual syndrome (PMS) and endometriosis.

At a glance: the combined pill

When taken correctly, the pill is over 99% effective at preventing pregnancy. This means that less than one woman in 100 who use the combined pill as contraception will get pregnant in one year. As humans make mistakes, in real world use at least 8

women in 100 a year become pregnant (92% effective). You need to take the pill every day for 21 days, then stop for seven days, and during this week you have a period-type bleed. You start taking the pill again after seven days. You need to take the pill at the same time every day. You could get pregnant if you don't do this, or if you miss a pill, or vomit or have severe diarrhea. Minor side effects include mood swings, breast tenderness and headaches. There is no evidence that the pill makes women gain weight. There's a very low risk of serious side effects, such as blood clots and cervical cancer. The combined pill is not suitable for women over 35 who smoke, or women with certain medical conditions. The pill does not protect against sexually transmitted infections (STIs), so using a condom as well will help to protect you against STIs.

How the combined pill works

The pill prevents the ovaries from releasing an egg each month (ovulation). It also thickens the mucus in the neck of the womb, so it is harder for sperm to penetrate the womb and reach an egg thins the lining of the womb, so there is less chance of a fertilized egg implanting into the womb and being able to grow

Although there are many different brands of pill, there are three main types:

Monophasic 21-day pills

This is the most common type. Each pill has the same amount of hormone in it. One pill is taken each day for 21 days and then no pills are taken for the next seven days. Microgynon, Rigevidon, Brevinor and Cilest are examples of this type of pill.

Phasic 21-day pills

Phasic pills contain two or three sections of different coloured pills in a pack. Each section contains a different amount of hormones. One pill is taken each day for 21 days and then no pills are taken for the next seven days. Phasic pills need to be taken in the right order. Binovum and Logynon are examples of this type of pill.

Every day (ED) pills

There are 21 active pills and seven inactive (dummy) pills in a pack. The two types of pill look different. One pill is taken each day for 28 days with no break between packets of pills. Every day pills need to be taken in the right order. Microgynon ED and Logynon ED are examples of this type of pill.

3. Condoms

A woman can get pregnant if a man's sperm reaches one of her eggs (ova). Contraception tries to stop this happening by keeping the egg and sperm apart or by stopping egg production. One method of contraception is the condom. There are two types of condoms: male condoms, which are worn on the penis, and female condoms, which are worn inside the vagina.

The Male condoms are made from very thin latex (rubber), polyisoprene or polyurethane, and are designed to stop a man's semen from coming into contact with his sexual partner. When condoms are used correctly during vaginal, anal or oral sex, they help to protect against pregnancy and sexually transmitted infections (STIs), including HIV. Condoms are the only contraception that protect against pregnancy and STIs.

How a condom works

Condoms are a barrier method of contraception. They stop sperm from reaching an egg by creating a physical barrier between them. Condoms can also protect against STIs if used correctly during vaginal, anal and oral sex. It's important that the man's penis does not make contact with the woman's vagina before a condom has been put on. This is because semen can come out of the penis before a man has fully ejaculated (come). If this happens, or if semen leaks into the vagina while using a condom, seek advice about emergency contraception from your GP or sexual health clinic. You should also consider having an STI test.

Who can use condoms?

Most people can safely use condoms. There are many different varieties and brands of male condom, and it's up to you and your partner which type of condom you use. However, condoms may not be the most suitable method of contraception for everyone.

Advantages and disadvantages of condoms

It is important to consider which form of contraception is right for you and your partner. Take care to use condoms correctly, and consider using other forms of contraception for extra protection.

Advantages

When used correctly and consistently, condoms are a reliable method of preventing pregnancy.

They help to protect both partners from STIs, including chlamydia, gonorrhea and HIV.

You only need to use them when you have sex – they do not need advance preparation and are suitable for unplanned sex.

In most cases, there are no medical side effects from using condoms.

Male condoms are easy to get hold of and come in a variety of shapes, sizes and flavors.

Disadvantages

Some couples find that using condoms interrupts sex. Communicating about sex and with your partner can help avoid embarrassment and make sex better.

Condoms are very strong, but may split or tear if not used properly. Some people may be allergic to latex, plastic or spermicides – you can get condoms that are less likely to cause an allergic reaction. When using a male condom, the man has to pull out after he has ejaculated and before the penis goes soft, holding the condom firmly in place. If male condoms aren't used properly, they can slip off or split. Practice and communication with your partner can help avoid this.

4. Contraceptive implant

The contraceptive implant is a thin, flexible 40mm long rod that's inserted under the skin of your upper arm. It's inserted by a professional. The implant stops the release of an egg from the ovary by slowly releasing progestogen into your body. Progestogen also thickens the cervical mucus and thins the womb lining. This makes it harder for sperm to move through your cervix, and less likely for your womb to accept a fertilized egg.

How the implant works

The implant steadily releases the hormone progestogen into your bloodstream. Progestogen is similar to the natural hormone progesterone, which is released by a woman's ovaries during her period. The continuous release of

progestogen: stops a woman releasing an egg every month (ovulation), thickens the mucus from the cervix (entrance to the womb), making it difficult for sperm to pass through to the womb and reach an unfertilized egg, makes the lining of the womb thinner so that it is unable to support a fertilized egg. The implant can be put in at any time during your menstrual cycle, as long as you and your doctor are reasonably sure you are not pregnant. In the UK, Nexplanon is the main contraceptive implant currently in use. Nexplanon is a small, thin, flexible tube about 4cm long. It is implanted under the skin of your upper arm by a doctor or nurse. A local anaesthetic is used to numb the area. The small wound made in your arm is closed with a dressing and does not need stitches. Nexplanon works for three years. The implant can be removed at any time by a specially trained doctor or nurse. It only takes a few minutes to remove, using a local anesthetic. As soon as the implant has been removed, you will no longer be protected against pregnancy.

Who can use the implant?

Most women can be fitted with the contraceptive implant. It may not be suitable if you: think you might be pregnant, want to keep having regular periods, have bleeding in between periods or after sex, have arterial disease or a history of heart disease or stroke, have a recent blood clot in a blood vessel (thrombosis), have severe liver disease, have breast cancer or have had it in the past, have diabetes with complications, have cirrhosis or liver tumors.

The main advantages of the contraceptive implant are:

It works for three years

The implant does not interrupt sex

It's suitable if you can't use oestrogen-based contraception, such as the combined contraceptive pill, contraceptive patch or vaginal ring

You don't have to remember to take a pill every day

It's safe to use while you are breastfeeding

Your fertility should return to normal as soon as the implant is removed

After the contraceptive implant has been inserted, you should be able to carry out normal activities

Disadvantages

Using a contraceptive implant may have some disadvantages, which you should consider carefully before deciding on the right method of contraception for you. Your periods may change significantly while using a contraceptive implant. Around 20% of women using the implant will have no bleeding, but almost 50% will have infrequent or prolonged bleeding. Bleeding patterns often remain irregular. These changes are not harmful. If the bleeding is a problem, your GP may be able to give you tablets to help.

5. Contraceptive injection

The contraceptive injection (Depo-Provera, Sayana Press or Noristerat) releases the hormone progesterone into your bloodstream to prevent pregnancy.

Who can use the contraceptive injection?

Most women can be given the contraceptive injection. It may not be suitable if you: think you might be pregnant, want to keep having regular periods, have bleeding in between periods or after sex, have arterial disease or a history of heart disease or stroke, have a recent blood clot in a blood vessel (thrombosis), have severe liver disease, have breast cancer or have had it in the past, have diabetes with complications, have cirrhosis or liver tumors, are at risk of osteoporosis

Advantages and disadvantages of the injection

The main advantages of the contraceptive injection are: each injection lasts for either eight, 12 or 13 weeks, the injection does not interrupt sex, the injection is an option if you cannot use oestrogen-based contraception, such as the combined pill, contraceptive patch or vaginal ring, you do not have to remember to take a pill every day, the injection is safe to use while you are breastfeeding, the injection is not affected by other medicines, the injection may reduce heavy, painful periods and help with premenstrual symptoms for some women, the injection offers some protection from pelvic inflammatory disease (the mucus from the cervix may stop bacteria entering the womb) and may also give some protection against cancer of the womb.

Using the contraceptive injection may have some disadvantages, which you should consider carefully before deciding on the right method of contraception for you. These are as follows:

Disrupted periods

Your periods may change significantly during the first year of using the injection. They will usually become irregular and may be very heavy, or shorter and lighter, or stop altogether. This may settle down after the first year, but may continue as long as the injected progestogen remains in your body. It can take a while for your periods and natural fertility to return after you stop using the injection. It takes around eight to 12 weeks for injected progestogen to leave the body, but you may have to wait longer for your periods to return to normal if you are trying to get pregnant. Until you are ovulating regularly each month, it can be difficult to work out when you are at your most fertile. In some cases, it can take three months to a year for your periods to return to normal.

Weight gain-You may put on weight when you use the contraceptive injection, particularly if you are under 18 years old and are overweight with a BMI (body mass index) of 30 or over.