### THE SAFER MOTHERHOOD

Knowledge Transfer Program

Editor-in-Chief: Professor Sir Sabaratnam Arulkumaran

# A GUIDE TO FAMILY PLANNING





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### Family Planning

### Benefits of family planning:

- Pregnancy when you are ready for a new baby, and no pregnancy when you are not yet ready
- Healthier baby when you have time to take care of your child
- Healthier mother when you have time to recover

### Safety:

- All contraceptives are safe for most women.
- Your healthcare provider can tell you if one of the methods is not safe for you
- All contraceptives are safer than abortion
- All contraceptives are safer than pregnancy

### **Understanding fertility:**

- A woman is usually fertile for 10 to 17 days after the start of her period
- A man is usually always fertile
- A young woman can already get pregnant before her first period
- A young mother can already get pregnant before her first period after delivery
- A woman can still get pregnant if she approaches menopause and if she had a period in the last 2 years

### **Natural methods:**

If you do have not have unprotected sex, between 1 and 3 weeks after the start of your period, you have a lower risk of getting pregnant

If you are fully breastfeeding, your child is less that 6 months old, and you have no period, then you have a lower risk of getting pregnant

N. B. Whilst it may be appropriate to use natural methods users should be aware that they are usually significantly less reliable than most

contraceptive methods



This Wall Chart has been written and developed by: Dr Hans Vemer



# Implants and Injectables

### **Implants**

### **How it Works:**

One or two small plastic rods, under the skin in the upper arm, release a progestagen, which makes the mucus of the cervix impenetrable to sperm cells, and in most women also stops ovulation

### When Appropriate:

For women who want 3 years of contraception, without having to think about it

### When NOT to Use:

When some irregular bleeding is unacceptable

### **Effectiveness:**

Less than 1% chance of pregnancy in 3–5 years

### Note:

Works for 3–5 years, needs to be removed if pregnancy is desired

### **Injectable**

### How it works:

Injection of progestagen, which makes the mucus of the cervix impenetrable to sperm cells, and in most women also stops ovulation

### When Appropriate:

For women who want 12 weeks of contraception, without having to think about it

### When NOT to Use:

When some irregular bleeding is unacceptable

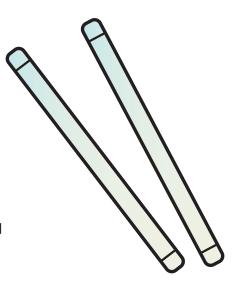
### **Effectiveness:**

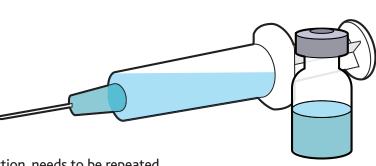
Less than 1% chance of pregnancy in 1 year (five injections)

### Note:

Works for 12 weeks, cannot be removed after injection, needs to be repeated if continued contraception is needed

Is sometimes longer active than 12 weeks







## Intrauterine Devices

### Intrauterine device (IUD)

### **How it Works:**

Prevents implantation of an egg

### When Appropriate:

For women who do not want to think about contraception for a number of years For emergency contraception within 72 hours of unprotected sex

### When NOT to Use:

Women with heavy menstruation

Women at risk from sexually transmitted diseases

### **Effectiveness:**

2% chance of pregnancy per year

### Note:

Women need to check regularly whether it is still in place

### Intrauterine device (IUD) with hormone

### How it works:

Makes the mucus of the cervix impenetrable to sperm cells and prevents implantation of an egg

### When Appropriate:

For women who only want to think about contraception for a number of years For emergency contraception within 72 hours of unprotected sex

### When NOT to Use:

Women with heavy menstruation

Women at risk from sexually transmitted diseases

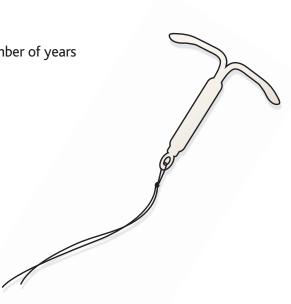
### **Effectiveness:**

Less than 1% chance of pregnancy in 1 year.

### Note:

Women need to check regularly whether it is still in place







# Condoms and Caps

### **Condom**

### **How it Works:**

Prevents sperm entering the vagina

### When Appropriate:

For men whose partner cannot or does not want to take contraceptives

For men with multiple partners

For men who have infrequent intercourse

### **Effectiveness:**

2% chance of pregnancy per year



### Note:

Provides some protection against sexually transmitted diseases and AIDS

### Female condom

### **How it Works:**

Prevents sperm entering the vagina

### When Appropriate:

For women who cannot or do not want to use other contraceptives

For women who have multiple partners

For women who have infrequent intercourse

### **Effectiveness:**

5% chance of pregnancy per year

### Note:

Provides some protection against sexually transmitted diseases and AIDS



### **How it Works:**

Prevents sperm from entering the uterus

### When Appropriate:

For women who cannot or do not want to use other contraceptives

For women who have infrequent intercourse

### When NOT to Use:

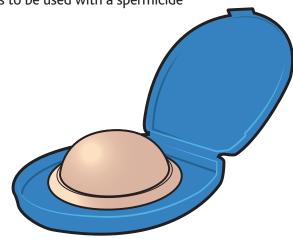
Women who are not familiar with their vagina

### **Effectiveness:**

8% chance of pregnancy per year

### Note:

Has to be used with a spermicide







### Oral Contraceptives

### **Combined pill**

### How it Works:

Contains an estrogen and a progestagen, which stop ovulation

### When Appropriate:

For women who want to take a daily pill

### When NOT to Use:

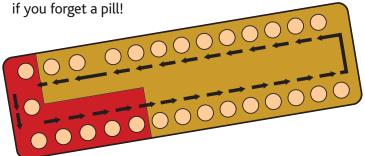
Women who smoke over age 35
Women with thrombosis in their history
Women who tend to forget daily pill intake

### **Effectiveness:**

Less than 1% chance of pregnancy per year, if taken correctly

### Note:

Talk to your healthcare provider



### Progestagen only pill

### How it Works:

Contains progestagen, which makes the mucus of the cervix impenetrable to sperm cells and in a number of women also blocks ovulation

### When Appropriate:

For women who do not want or cannot take estrogen

### When NOT to Use:

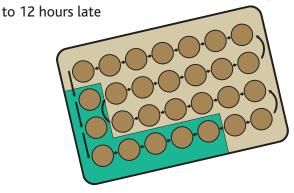
Women who tend to forget daily pill intake

### **Effectiveness:**

1% chance of pregnancy per year

### Note:

Most progestagen only pills must not be taken more than 3 hours late, but some can be taken up



### **Emergency contraception**

### **How it Works:**

A pill taken soon after intercourse which works either by preventing fertilization or, because it hinders implantation, by preventing pregnancy

### When Appropriate:

Within 72/120 hours of unprotected sex (dependent on the product)

### When NOT to Use:

More than 5 days after unprotected sex

### **Effectiveness:**

90% effective when taken correctly

### Note:

Should not be used as routine contraception

For more detailed information please see the reverse side of this chart



## Vaginal Rings and Patches

### Vaginal ring

### **How it Works:**

Releases an estrogen and a progestagen, which stops ovulation

### When Appropriate:

For women who only want to think twice per month about contraception

### When NOT to Use:

Women who smoke over age 35 Women with thrombosis in their history

### **Effectiveness:**

Less than 1% chance of pregnancy per year (with 13 rings), if used correctly



Works for 3 weeks when in the vagina, then has to be replaced after ceasing for 1 week

### **Patch**

### **How it Works:**

Releases an estrogen and a progestagen, which stops ovulation

### When Appropriate:

For women who only want to think about contraception once a week

### When NOT to Use:

Women who smoke over age 35 Women with thrombosis in their history

### **Effectiveness:**

Less than 1% chance of pregnancy per year (with 39 patches), if used correctly

### Note:

Not well suited in humid climates
Can be visible







### Sterilization

### Female sterilization:

### How it works:

Blocking of the tube: the sperm cannot reach the egg.

### When appropriate:

For women with a completed family

### When NOT to use:

When in doubt if you want more children later, also not right after delivery

### **Effectiveness:**

Less than 1% chance of pregnancy.

### Note:

Impossible (or very difficult) to reverse.

### Male sterilization:

### How it works:

Blocking of the vas: sperm cells cannot leave the penis.

### **Effectiveness:**

Less than 1% chance of pregnancy.

### When appropriate

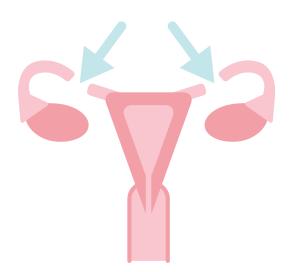
For men with a complete family

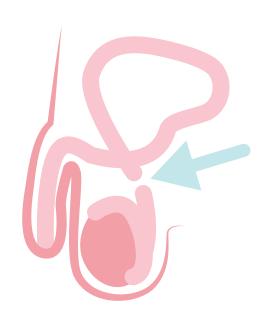
### When NOT to use:

When in doubt if more children are wanted later

### Note:

Semen test has to show that there are no sperm cells, before other contraception can be stopped.





# This Leaflet and Wall Chart

This Leaflet/Wall Chart has been prepared by Dr Hans Vemer, MD, PhD, Jhpiego, an affiliate of Johns Hopkins University, Baltimore, MD, USA and Consultant, Department of Obstetrics and Gynaecology, University of Nijmegen, The Netherlands

This publication is designed to be read as a Leaflet or displayed as a Wall Chart. This is the *reverse* side, which provides more detail about the general principles described on the *front* side, which is intended to be the **display** side.

Further copies of the Leaflet/Wall Chart can also be downloaded directly from *The Global Library of Women's Medicine* **www.glowm.com** where it can be viewed as a whole or printed out from any computer printer as a series of 16 individual pages that, when positioned correctly together, can make up both sides of the Wall Chart.

The Global Library of Women's Medicine provides an extensive range of resources – assembled by many distinguished specialists – relevant to the topics of Family Planning and Safer Motherhood, including skills training videos, midwives tutorials, educational films and basic health guidance. All these resources are available entirely **FREE** and can be accessed immediately simply by visiting **www.glowm.com.** 

Wall Charts currently available, or planned for the near future, include the following topics: Postpartum Hemorrhage, Family Planning, Active Management Third Stage of Labor, HIV Transmission, Pre-eclampsia and Eclampsia, Normal Vaginal Birth, Malpresentations, Sepsis.

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## Methods With No User Failure

### **Contraceptive injection**

### **Effectiveness:**

- Over 99% effective.
- Less than one woman in 100 will get pregnant in a year.

### How it works:

Releases the hormone progestogen slowly into the body. In most women it stops ovulation, thickens cervical mucus to prevent sperm reaching an egg, and thins the lining of the womb to prevent an egg implanting.

### **Advantages:**

- Lasts for 12 or 8 weeks.
- May protect against cancer of the womb, and offers some protection from pelvic inflammatory disease.
- You don't have to think about contraception for as long as the injection lasts.

### **Disadvantages:**

- Periods may stop, be irregular or longer.
- Periods and normal fertility may take time to return after stopping the injections.
- Some women gain weight.
- Some women report having headaches, spotty skin, mood changes and breast tenderness.

### **Comments:**

- The injection cannot be removed from the body so any side-effects may continue for as long as it works and for some time afterwards.
- Some medicines may decrease the proper working of the injection especially certain antituberculosis drugs.

### **Implant**

### **Effectiveness:**

- Over 99% effective.
- Less than one woman in 1000 will get pregnant over 3 years.

### How it works:

Small flexible tube put under the skin of the arm. Releases the hormone progestogen. In most women it stops ovulation, thickens cervical mucus to prevent sperm reaching an egg, and thins the lining of the womb to prevent an egg implanting.

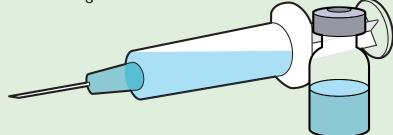
### **Advantages:**

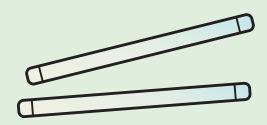
- Works for 3 years but can be taken out at any time.
- You don't have to think about contraception for as long as the implant is in place.
- When the implant is removed your normal level of fertility will return.

### **Disadvantages:**

- Periods may stop, be irregular or longer.
- Acne may occur.
- Some women report having mood changes and breast tenderness.

- Put in using a local anesthetic and no stitches are needed. Tenderness, bruising and some swelling may occur.
- You may feel the implant with your fingers, but it can't be seen.
- Some medicines may decrease the proper working of the implant especially certain antituberculosis drugs.







## Methods With No User Failure

### **Intrauterine system (IUS)**

### **Effectiveness:**

- Over 99% effective.
- Less than one woman in 100 will get pregnant over 5 years.

### How it works:

A small plastic device which releases the hormone progestogen is put into the womb. This thickens cervical mucus to prevent sperm reaching an egg, thins the lining of the womb to prevent an egg implanting and may stop ovulation.

### **Advantages:**

- Works for 5 years but can be taken out at any time.
- Periods will be much lighter, shorter and usually less painful.
- You don't have to think about contraception for as long as the IUS is in place.
- When the IUS is removed your normal level of fertility will return.

### **Disadvantages:**

- Irregular bleeding or spotting is common.
- Periods may stop altogether. Some women report having mood changes, spotty skin and breasts tenderness.
- Very small chance of getting an infection during the first 3 weeks after insertion.
- May get ovarian cysts.

### **Comments:**

- If fitted after 45, it can stay in place until the menopause.
- Women are taught to check the IUS is in place.
- Very useful for women with very heavy and/or painful periods.
- A check for any existing infection is usually advised before an IUS is put in.
- Not affected by other medicines.

### Intrauterine device (IUD)

### **Effectiveness:**

- Around 99% effective.
- Less than 1–2 women in 100 will get pregnant in a year, depending on the type of IUD.

### How it works:

A small plastic and copper device is put into the womb. It stops sperm reaching an egg, and may also stop an egg implanting in the womb. It does not work by causing an abortion.

### **Advantages:**

- Works as soon as it is put in.
- Can stay in 3–10 years depending on type, but can be taken out at any time.
- You don't have to think about contraception for as long as the IUD is in place.
- When the IUD is removed your normal level of fertility will return.

### **Disadvantages:**

- May not be suitable for women at risk of getting a sexually transmitted infection.
- Periods may be heavier or longer and more painful.
- Very small chance of getting an infection during the first 3 weeks after insertion.
- A small increased risk of ectopic pregnancy if the IUD fails.

- If fitted after 40, it can stay in place until the menopause.
- Women are taught to check the IUD is in place by feeling the threads high in their vagina.
- A check for any existing infection is usually advised before an IUD is put in.
- Not affected by other medicines.



## Methods With No User Failure

### Female and male sterilization

### **Effectiveness:**

- Female sterilization overall failure rate is about one in 200
- Male sterilization (also known as vasectomy) overall failure rate is about one in 2000.

### How it works:

The fallopian tubes in women or the tubes carrying the sperm (vas deferens) in men are cut or blocked to prevent sperm reaching an egg. Female sterilization usually involves a general anesthetic.

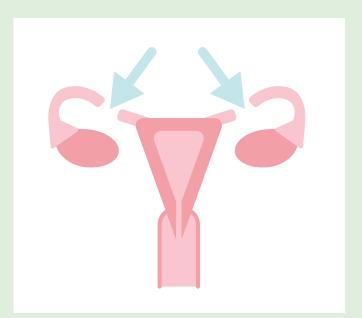
### **Advantages:**

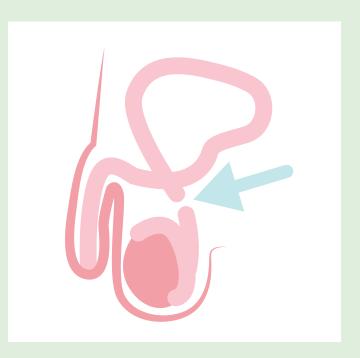
- Vasectomy is a simple and quick operation.
- Sterilization is permanent with no long or shortterm serious side-effects.
- Once the operation has worked, you don't have to think about contraception.

### Disadvantages:

- After vasectomy, contraception must be used until a semen test shows that no sperm are left. This can take at least 2 months.
- Some men may experience ongoing testicle pain.
   This is not common.
- A small increased risk of ectopic pregnancy if female sterilization fails.

- Should not be chosen if in any doubt, and counseling is important.
- You may experience discomfort or some pain for a short time after sterilization. It is important to rest and avoid strenuous activity for a while after the procedure.







## Methods With Some User Failure

### Contraceptive patch

### **Effectiveness:**

- Over 99% effective if used according to instructions.
- Less than one woman in 100 will get pregnant in a year.

### How it works:

A small patch stuck on the skin releases two hormones, estrogen and progestogen. This stops ovulation, thickens cervical mucus to prevent sperm reaching an egg, and thins the lining of the womb to prevent an egg implanting.

### **Advantages:**

- Easy to use.
- Can make bleeds regular, lighter and less painful.
- May protect against cancer of the ovary and womb.
- Can be used by healthy nonsmokers up to the menopause.
- When you stop using the patch your normal level of fertility will return.

### **Disadvantages:**

- Not suitable for smokers over 35 and some other women.
- Very low risk but serious side-effects may include blood clots (thrombosis) and cervical cancer.
- Can be temporary minor side-effects such as headaches and breast tenderness.
- Possible skin reaction.

### **Comments:**

- May be seen.
- New patch has to be used each week for 3 weeks out of 4.
- Some medicines can make it less effective.
- Less effective in women who weigh 90 kg or over.
- Not affected by diarrhea or vomiting.

### Combined pill (COC)

### **Effectiveness:**

- Over 99% effective if taken according to instructions.
- Less than one woman in 100 will get pregnant in a year.

### How it works:

Contains two hormones – estrogen and progestogen. It stops ovulation, thickens cervical mucus to prevent sperm reaching an egg and thins the lining of the womb to prevent an egg implanting.

### **Advantages:**

- Often reduces bleeding, period pain and premenstrual symptoms.
- Protects against cancer of the ovary, womb and colon and some pelvic infections.
- Suitable for healthy non-smokers up to the menopause.
- When you stop using the combined pill your normal level of fertility will return.

### **Disadvantages:**

- Not suitable for smokers over 35 and some other women.
- Very low risk but serious side-effects may include blood clots (thrombosis) and cervical cancer.
- Can cause temporary minor side-effects such as headaches, mood changes and breast tenderness.

- Missing pills, vomiting or severe long-lasting diarrhea can make it less effective.
- Some medicines can make it less effective.



## Methods With Some User Failure

### Progestogen-only pill (POP)

### **Effectiveness:**

- 99% effective if taken according to instructions.
- One woman in 100 will get pregnant in a year.

### How it works:

Contains the hormone progestogen, which thickens cervical mucus to prevent sperm reaching an egg and thins the lining of the womb to prevent an egg implanting. In some women it stops ovulation.

### **Advantages:**

- No serious side-effects.
- Can be used by women who cannot use estrogen.
- Can be used by women who smoke and are over 35.
- When you stop using the POP your normal level of fertility will return.

### **Disadvantages:**

- Periods may stop, or be irregular, light, or more frequent.
- May be temporary minor side-effects such as spotty skin and headaches.
- A small increased risk of ectopic pregnancy if it fails.
- May be less effective in women who weigh over 70 kg.
- May get ovarian cysts.

### **Comments:**

- It needs to be taken at the same time each day.
- Not effective if taken over 3 hours late or after vomiting or severe diarrhea.
- Some medicines may make it less effective but most common antibiotics do not affect POPs.

### **Emergency contraception**

### **Effectiveness:**

- Almost 90% effective, if taken within 72 hours (3 days)/120 hours (5 days) of unprotected sex (dependent on the product).
- Effectiveness is reduced if taken later than 72 hours, and is dependent on where the woman is in her cycle.

### How it works:

Morning-after pill — Prior to ovulation, a high dose of the hormones used in other contraceptives prevents the release of an egg. After ovulation, the hormones make the lining of the uterus inhospitable for an egg to implant, so even if fertilization occurs, there is no implantation and no pregnancy.

### **Advantages:**

- Works within 72/120 hours after unprotected sex, dependent on the product, but it is always better to take it sooner.
- Can be used when a condom has failed or after forced sex.

### **Disadvantages:**

 Does not work when unprotected sex was more than 5 days ago.

- Morning-after pills should not be taken as a routine contraceptive, as they disrupt the cycle.
- If an IUD is inserted within a maximum of 72 hours/120 hours it can also provide emergency contraception, by preventing the implantation of a fertilized egg. The IUD can then be left in place to provide effective ongoing family planning. The same advantages and disadvantages listed above apply.

# 6

## Methods With Some User Failure

### Male condom

### **Effectiveness:**

- 98% effective if used according to instructions.
- Two women in 100 will get pregnant in a year.

### How it works:

Made of very thin latex (rubber) or polyurethane (plastic) it is put over the erect penis and stops sperm from entering the woman's vagina.

### **Advantages:**

- Widely available free from contraception, sexual health and GUM clinics, and sold widely.
- Can help protect both partners from some sexually transmitted infections, including HIV.
- No major side-effects.
- Additional spermicide is not needed or recommended.

### **Disadvantages:**

- Putting it on can interrupt sex.
- Must be put on before the penis touches the woman's genital area.
- May slip off or split if not used correctly.
- Man needs to withdraw as soon as he has ejaculated and be careful not to spill any semen.

### Comments:

- Oil based products damage latex condoms, but can be used with polyurethane condoms.
- Available in different shapes, sizes and flavors.



### Female condom

### **Effectiveness:**

- 95% effective if used according to instructions.
- Five women in 100 will get pregnant in a year.

### How it works:

A soft polyurethane sheath lines the vagina and the area just outside, and stops sperm from entering the vagina.

### **Advantages:**

- Can be put in any time before sex.
- Can help protect both partners from some sexually transmitted infections, including HIV.
- Oil based products can be used with female condoms.
- No major side-effects.
- Additional spermicide is not needed or recommended.

### **Disadvantages:**

- Putting it in can interrupt sex.
- Need to make sure the man's penis enters the condom and not between the vagina and the condom.
- May get pushed too far into the vagina.
- Expensive to buy.

- Use a new condom each time and follow the instructions carefully.
- Sold in some pharmacies and is free at some contraception and sexual health clinics.



### Methods With Some User Failure

### Diaphragm/cap with spermicide

### **Effectiveness:**

- Latex types are 92–96% effective if used correctly.
- Between four and eight women in 100 will get pregnant in a year.
- Silicone caps are less effective.

### How it works:

A flexible latex (rubber) or silicone device, used with spermicide, is put into the vagina to cover the cervix. This stops sperm from entering the womb and meeting an egg.

### **Advantages:**

- Can be put in any time before sex.
- May protect against some sexually transmitted infections and cancer of the cervix.
- A variety of types to choose from.
- No major side-effects.

### **Disadvantages:**

- Putting it in can interrupt sex.
- Extra spermicide is needed if you have sex again.
- Cystitis can be a problem for some diaphragm users.
- Can take time to learn how to use correctly.

### **Comments:**

- Correct size needs to be known and you need to replace it, usually every year, or if you gain or lose more than 3 kg, or have a baby, miscarriage or abortion.
- There is a variety of different types to choose from.

### Natural family planning

### **Effectiveness:**

- Using several fertility indicators is up to 98% effective if instructions and teaching are followed.
- One to two women in 100 will get pregnant in a year.

### How it works:

The fertile and infertile times of the menstrual cycle are identified by noting the different fertility indicators. This shows when you can have sex without risking pregnancy.

### **Advantages:**

- No side-effects.
- No hormones are used.
- Gives a woman a greater awareness of her body.
- Can also be used to plan a pregnancy

### **Disadvantages:**

- Need to avoid sex or use a condom at fertile times of the cycle.
- The method needs to be learned from a trained natural family planning teacher and takes time to learn.

### Comments:

 Small handheld computerized monitors with urine test sticks can measure hormonal changes.

