



Women's Health For Wellness

Women and Development Unit
School of Continuing Studies
University of the West Indies

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Preface

This publication, devoted to women's health issues, provides information which will assist women to take charge of all aspects of their health and their lives. While the collection is not complete, it is nonetheless, one step in the process to continue to educate Caribbean women, particularly those at the level of the community, on the need to maintain a state of "wellness" and to recognise that all women, regardless of their status and condition in society, have the right to proper health care as "the enjoyment of this right is vital to their well-being as well as their ability to participate in all areas of public and private life". (*Beijing Platform of Action*).

The work, which speaks specifically to women's reproductive health, was inspired by a UNFPA-funded project conducted by the Women and Development Unit in Dominica, Grenada, Saint Lucia and St Vincent and the Grenadines in collaboration with the local Family Planning and Planned Parenthood Associations. Under this project, mainly rural women, who had very little access to information on human sexuality and women's reproductive health, were trained as trainers who would take back the information imparted in training sessions to the women (and men) in their communities. Because of the nature of the project, more than 8,000 women were reached in the various communities in which the project was implemented.

Since women are vital to the development process, but, nonetheless, suffer social exclusion, it is important that the information contained in this work be disseminated as widely as possible. As it is intended to complement the existing literature to be found in local family planning/planned parenthood associations, it is hoped that it will be accessible through their local associations in the subregion.

The Women and Development Unit would like to use this medium to thank FPAs/PPAs as well as all the women who participated in the project as well as UNFPA Resident Representative, Oyebade Ajayi, and Programme Officer, Annette Ebanks for their support for the Unit's programme of activity which have benefitted some of the most disadvantaged women in the Eastern Caribbean. Thanks also to Dr Beverley Barnett of the PAHO Regional Office, who assisted us with reviewing this publication.

Women's Health for Wellness is dedicated to all those Caribbean women who have been forgotten in the process of sustainable development.

*Judith Soares, PhD
Tutor/Coordinator
WAND
May 2000*

Introduction

The way in which our bodies work often remains a mystery to many of us. This lack of awareness and knowledge can form a significant barrier to our good health and hence personal and national development. In the Caribbean at the start of the 21st century, teenage pregnancies still cause significant personal, social and economic hardship; sexually transmitted infections and HIV/AIDS are increasing among young people; groups are only just starting to work to better understand menopause and remove the stigma associated with it and people are becoming more aware of the importance of prevention and early detection of various diseases.

The topics covered in this booklet are of tremendous importance to women of all ages and persons with whom they have close or intimate relationships. The booklet examines women's reproductive health issues in a simple, easy-to-understand format. It indicates what women can do to prevent illness, but also offers pointers on when they should seek advice from a health professional.

Sections include the menstrual cycle, the reproductive cycle and the vulnerability of women and will help women to understand the way their body is made, how it functions, and most importantly, how to keep themselves healthy.

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Understanding the Body

Menstruation

During puberty a girl starts the transition from childhood to physical maturity. This is characterised by growth of the breasts, pubic and underarm hair as well as a growth spurt in which weight and height are added. Without doubt, however, the most important event in a girl's childhood is the onset of menstruation (known as the *menarche*).

The menarche usually starts near the end of puberty, at about age 12, but any age from nine to 18 is considered normal. Research has shown that the proportion of a girl's body fat to her overall weight is an important factor in the arrival of the menarche. If her body fat is less than one-quarter of her weight, menstruation is often delayed.

On average, menstruation (derived from the Latin *mensis*, meaning month) usually continues until the age of 50, but may end any time between 40 and 55, when *menopause* occurs. (See relevant section.)

During menstruation, a bloody fluid is shed through the vagina. The usually red fluid is made up of more than blood. It also contains mucus from the lower part of the womb (cervix, see Figures 1a and 1b), unwanted material from the lining of the womb or uterus (endometrium), secretions from the vagina, mucus and cells. Sometimes the blood is clotted.

The bleeding usually occurs every 28 days on average but the length of the menstrual cycle can range from 20 to 36 days. Some women find it hard to figure out when to expect their period. It's more easily understood when observed over a few months, marking a calendar as you go along. The beginning of the cycle is the first day bleeding occurs. The last day of the cycle is the day before bleeding starts again. For instance, if in March bleeding starts on the 8th, this is the start of the cycle. If the bleeding starts again on April 5th, then that cycle would have been 28 days, with the last day of the cycle being April 4th. (See Calendar in Figure 2)

If the same 28 days is noted over a few months then you have a 28-day cycle. If there is a 33-day break between bleeding over several months, then your cycle is 33 days. If, however, from

one month to the next the break is 26 days, followed by a break of 30 days over the next month, followed by a break of 34 days, then your cycle would be called "irregular".

The process from menarche to menopause is caused by changing levels of hormones.

By the time the bleeding occurs every month, a girl or woman's body undergoes a number of changes. At birth the ovaries (see Figure 1a) contain about one million follicles (hollow balls of cells containing an immature egg in the centre). During childhood the ovaries absorb half of them. Of the remaining follicles, 300-500 will develop into mature eggs during a woman's reproductive years.

Each month ten to 20 of these follicles begin maturing under the influence of hormones. Usually one develops fully (the rest being absorbed by our bodies.) Some of the cells in the maturing follicle produce a hormone called oestrogen. This hormone causes the glands of the womb's lining to grow and thicken, and allows the blood supply to the glands to increase. (Preparation in case of pregnancy.)

The follicle with the maturing egg inside moves to the surface of the ovary and the egg is released (ovulation). Just before this the same cells in the follicle produce another hormone – progesterone. The egg now travels from the ovary through the fallopian tube (Figure 1a) on a journey to the womb. If the egg reaches its destination (uterus) without conception or fertilisation (see relevant section) occurring, it breaks up and flows out with vaginal secretions before menstruation occurs, so you don't notice it.

Once conception has not occurred, the follicle from which the egg broke free continues to produce oestrogen and progesterone for about 12 days, with the amount dropping in the last few days. When this happens, the lining of the womb stops thickening and this is shed (along with the other substances mentioned earlier) as the menstrual flow or period.

During menstruation most of the womb's lining is shed but the bottom third remains to help form a new lining. Then triggered

by hormones a new follicle starts growing, releasing oestrogen, the lining starts to thicken, and the cycle starts again.

It is possible to have a period without having produced an egg. In young women this occurs once a year on average, but it increases to eight to ten times a year as menopause approaches.

A period can last from two to eight days, with four to six being the average. It is not a continuous flow but it stops and starts over those days, although this may not be evident. A usual discharge for a menstrual period is about four to six tablespoons or about two to three ounces.

The length of the cycle and the flow differ from woman to woman, with some spontaneous small changes and other major changes occurring depending on stress levels. If you've had children and as you get older, changes in cycle or flow can also occur.

Premenstrual Syndrome

Many women often experience a variety of physical and emotional sensations for several days before and sometimes on the first day of menstruation. These sensations or symptoms may range from headache, backache, abdominal cramps or heaviness, acne flare-ups, bloating, craving for sweet foods to muscle spasms, breast tenderness, mood swings, depression, forgetfulness, irritability or aggressive behaviour, tearfulness, fatigue and changes in sexual desire.

These symptoms usually begin about halfway through the menstrual cycle and are generally most intense during the last seven days before the period begins. Once the menstrual flow begins, most symptoms either disappear or ease considerably.

The combined emotional and physical symptoms are known as *premenstrual syndrome* or *premenstrual tension*, but known to nearly everyone as PMS.

There's still some disagreement among experts about what causes PMS, but it seems to be linked to hormones. It is estimated to affect seven out of ten women during their childbearing years. Nearly half of those women affected by

PMS are thought to have symptoms severe enough to interfere with their daily activities. Many women also find that PMS symptoms worsen as they grow older.

There are no physical examination findings or lab tests that help doctors diagnose PMS, but you may be able to tell whether you have PMS by keeping a diary of your symptoms. This will help you see whether they follow a monthly pattern. Note the symptom and the time of month it occurs.

While there's no cure for PMS, self-help measures can ease symptoms. Many women find a balanced diet and healthy snacks and avoiding caffeine and salt, alcohol and sugar intake helps. Some women believe that vitamin B6, magnesium, evening primrose oil and some other herbal preparations are useful, but there are no scientific studies to prove that they work.

Dysmenorrhoea

Dysmenorrhoea is the term used to describe the painful cramping women experience during their periods. The cramps are felt in the middle of the lower abdomen and are frequently accompanied by a heavy aching sensation in the area of the vagina, lower back and down both legs. For some women, it feels like something has been expelled from the womb.

Menstrual cramps can start anytime around your period – either before or during the flow. They can affect you for three to four days but the actual pain hardly ever lasts more than four to 12 hours at a time.

Most medical experts agree that dysmenorrhoea is likely set off by some substances in the body called prostaglandins. Some of them are found in the cells in the lining of the womb and are released in large amounts during menstruation. While the womb tends to contract painlessly during your period, these prostaglandins encourage the womb to contract for a longer time and tighter. In doing this oxygen is cut off temporarily from the muscles of the womb, and this is felt as pain.

While in many women painful periods occur because more prostaglandins are produced during the menstrual flow, dysmenorrhoea in other women may be linked to diseases or

infection in the reproductive organs or even with certain contraceptive devices (see section on Contraception).

Treatment of dysmenorrhoea varies. Some women find relief with painkillers bought without a prescription as well as home-grown treatments such as applying heat (hot water bottle or warm towel) to the lower abdomen, and drinking camomile and peppermint tea.

If the pain is really bad and nothing helps, you should check with a doctor who would first have to hear your history of painful periods to determine the cause before deciding on treatment.

Amenorrhoea

This is the absence of periods. When a girl has not had a period by age 18, this is called primary amenorrhoea. Secondary amenorrhoea describes the condition when your periods stop after at least one time of menstruating.

The causes include pregnancy, menopause (see relevant sections), breast-feeding, excessive dieting, starvation, hard athletic training (especially during adolescence), hormonal imbalance, cysts or tumours, stress or emotional factors and abnormal development of the reproductive organs.

Only a doctor can pinpoint why periods never started or have stopped, so if this happens, it is best to see one urgently.

Menopause

Menopause refers to the ending of the menstrual periods. This usually happens when a woman is around 51 but anytime from the mid-40s to the late 50s is normal. (If periods stop before a woman turns 40, it is called *premature menopause*. Also women who suffer with epilepsy tend to go through menopause a little earlier than other women, while smokers may experience it two years earlier than non-smokers.)

Three clear signals of menopause are the stopping of menstrual flow, hot flashes and vaginal changes. Of these three, all

women experience the ending of the periods while only some may notice the other two. The only other physical change might occur in body weight and body composition related to the hormonal changes of menopause.

Confusion about menopause sometimes occurs because many of the discomforts and difficulties such as irregular periods, severe PMS, and even hot flashes, occur during the years leading up to the menopause (*the perimenopausal years*).

In many women the complete stopping of the periods takes about four years. During this time, the hormones that control your menstrual cycles (oestrogen and progesterone) change their pattern and affect the pattern of your periods. So the periods may become heavier or lighter and last for fewer days or more days. Sometimes as well the time between periods may become shorter or longer. On occasions, you may miss a period (sometimes for several months).

When hormonal levels drop even more, that's when the periods stop altogether. Around this time many women experience hot flashes, although they may begin a little earlier for some. Others report hot flashes for years after menopause.

One of the most worrisome things in the years leading up to menopause is heavy bleeding (called menorrhagia or "flooding"). This is common among black women. The flow may clot or gush and your periods may become so extended that you seem to be having one continuous period. At times tampons or pads can't contain the heavy flow. Seeing so much blood can be frightening and embarrassing.

More oestrogen and reduced progesterone during your cycle, resulting in a thick or irregular lining of the womb, usually causes the heavy bleeding. If this persists for more than a few months it is important to check with a clinic or doctor.

Doctors deal with heavy bleeding in several ways. You might be given a treatment of hormones. However, this should be for a short time. There are risks when you use these drugs for a long time (including cancer). Other doctors may want you to have surgery to remove your womb or ovaries or both. Because of the heavy bleeding it may sound like a simple answer but surgery and the removal of your womb and ovaries have their risks (bigger chance of heart disease and brittle bones, change in sexual desire). Talk it over with another doctor and with a close relative or friend before making a decision.

Also worrisome to some women are light and scant periods in the years leading up to the menopause. If you are sexually

active, it is important to keep using some form of birth control, as you can still be fertile.

Some women going through the menopause experience vaginal dryness. As you age, mucous membranes in various parts of the body tend to get drier. Thinning vaginal membranes hold less moisture and lubricate more slowly. This dryness can interfere with sexual pleasure. There are several products at the pharmacy that help with this. You can also help by drinking lots of water.

The most talked about thing in menopause is the hot flash. During hot flashes there is a sudden increase in heart rate, often felt as palpitations, a rise in skin temperature (caused by an increase in the blood flow near the surface of your body), and a sudden onset of sweating (especially in the upper body). When the sweat evaporates your body cools and you may feel chilled.

Hot flashes may begin when the periods are still regular or when they start to become irregular. They can continue up to a few months after your periods have stopped. Some women report them years after menopause. Hot flashes can occur every hour or every day at any time of day or night – your body

develops a pattern.

These flashes can be most disturbing at night as they interrupt sleep. Intense sweating may force you to change your nightclothes and sheets. The loss of sleep may then cause fatigue, irritability and a feeling of being unable to cope. If you check with a doctor about hot flashes, again you may be faced with suggestions of hormone treatment or surgery.

There are many ways you can deal with hot flashes yourself. First, keep track of them, noting when they occur in relation to your periods and other events. This will help you see a pattern. Stick to a healthy diet, taking in more calcium to build bones. Try to avoid caffeine (tea, coffee, chocolate, cola drinks), alcohol, sugar, spicy foods, hot soups and hot drinks. Eat smaller, lighter meals, especially at night. Foods such as squash, yams and carrots are excellent, as well as beans and fruits like papaw. Vitamin E, found in vegetable oils (wheat germ), brown rice, beans, corn and almonds, is also great.

Keep active. Exercise helps to relieve stress - which can increase hot flashes - keeps your body in good shape, and helps you to sleep better.

The Reproductive Cycle

Contraception/Birth Control

The ability to control when or if you want to have children is a fundamental right (often denied) of women the world over. Most women want the safest, most dependable, easiest to use birth control or contraceptive method to prevent or time pregnancy.

There are many methods from which to choose but as to which one fits the ideal mould is debatable, so the choice of a method is usually a compromise by women.

The following are the most readily available forms of birth control in our part of the world.

1. Contraceptive Pill: The most widely used pills work to prevent pregnancy by altering the menstrual cycle by introducing synthetic versions of the female hormones. They work primarily by preventing the development of the egg in the ovary. The *pill* is taken daily and if you want to become pregnant, stop taking them when the packet is finished. While the pill has a failure rate of about 5% - that is, five out of every 100 women who take it regularly will still get pregnant - pregnancy is more likely if you forget to take your pill for one or more days.

Many women are uneasy about taking a medication that affects almost every organ in their bodies each day for years, and because its effects may vary from one woman to another. It is best to speak to your health care professional before going on the pill and deciding which to use.

2. Contraceptive Injection: There are several contraceptives which are administered by injection. The duration of their effectiveness varies. Some last for a month, others for two months and some up to three-and-a-half months. Some of the injectables, as they are called, contain progestin, while others contain progestin and estrogen. Depo-Provera or DMPA is the best known of the injected contraceptives.

Depo-Provera is usually injected by a health professional and provides about 14 weeks of protection. The first injection is given within a week after your menstrual period begins.

The most common side effect is altered menstrual pattern, such as very heavy or irregular or no periods. Other side effects include weight gain, dizziness, headaches, depression, acne moodiness, abdominal discomfort, decreased sex drive, hair loss, anxiety, breast tenderness and backache.

You may have to wait for six months to a year to become pregnant after stopping DMPA because it has a long lasting effect on ovulation. Check with your practitioner whether contraceptive injection is suitable for you.

3. Diaphragm and Spermicidal Cream or Jelly: The diaphragm is made of soft rubber in the shape of a shallow cup (see illustration). It has a flexible metal spring rim and when properly fitted and inserted, it fits snugly over the entrance to the womb (cervix). It must always be used with spermicidal cream or jelly as they are really the birth control ingredients. The diaphragm is the container that holds them in place.

The diaphragm comes in a variety of sizes. To get the right size and fit, you must be measured by a doctor or nurse. It is important that you are taught how to put in the diaphragm before leaving the doctor's office or clinic. Try putting it in your vagina several times before you plan intercourse and if there are any problems, check back with the clinic or doctor.

When the diaphragm is in place, holding the spermicidal cream or jelly up to your cervix, sperm cannot get into the canal leading to your womb and are killed by the cream or jelly. Some women also smear jelly on the outside of the diaphragm to help kill sperm remaining in the vagina.

It is best to put in the diaphragm as close to intercourse as possible but if you get caught up in sexual play easily, then it's best to put it in a few hours before intercourse, but not more than six hours before. If you are going to have intercourse more than once, you must add more cream or jelly with an applicator without taking out the diaphragm. It should only be taken out several hours after the last intercourse.

With a good fit and when used properly, the diaphragm is a very effective birth control device. This method is best for someone who has intercourse relatively infrequently. Side effects include a reaction to the cream or jelly (eased by changing brands) or yeast or urinary tract infections. If these persist, then this method is not for you.

4. Condom: There are condoms for both women and men.

The female condom consists of a soft, loose-fitting plastic sheath, which is closed at one end and open at the other, each having a flexible ring. When the female condom is in

place, it lines the walls of the vagina creating a covered passageway for the penis. The ring that's inserted into the vagina is done like a diaphragm, anchoring the device in place, while the other ring stays outside of the vagina.

It can be inserted into the vagina up to eight hours before intercourse, unlike the male condom. Its plastic lining is also stronger than the materials used in most male condoms. While the female condom is effective in protecting women against sexually transmitted diseases, in reality many women still get pregnant while using it because they do not do it correctly and consistently.

The male version is the more popular of the condoms. It is the only temporary contraceptive device that can be used by a man. Usually made of thin, strong latex rubber, the male condom is a sheath designed to fit over an erect penis. It is open at one end with a rubber ring to help keep it in place. The closed end is either rounded or shaped with a little nipple to collect semen and to prevent it from bursting.

Male condoms prevent pregnancy by keeping semen from getting into a woman's vagina. It has a very high success rate when used properly and when used along with a spermicidal foam, cream or jelly, it offers close to 100 per cent protection against pregnancy.

The condom is rolled onto the erect penis before any contact with the vagina or intercourse. The man may discharge a few drops of fluid before ejaculation and while this is not likely to contain sperm, it can possibly transmit HIV or other sexually transmitted diseases.

5. **The Cervical Cap:** The cervical cap is a thimble-shaped rubber cap that fits snugly over the cervix, blocking sperm from entering the cervical opening. The cap comes in four sizes, so it does not fit all women. Usually, a small amount of spermicide is used on the inside of the cap to kill any sperm that might break through the suction shield.

Some health workers recommend inserting the cap at least 30 minutes before intercourse to allow suction to build up, but it may be inserted up to 40 hours ahead of time. The cap must be kept in place for at least six hours after intercourse. It is not recommended that the cap be left in place for more than 48 hours, although some doctors believe it can be worn continuously for 72 hours (three days) or longer.

If you have a cervical erosion or laceration, you should not use the cap because it does not allow the free flow of cervical secretions. Also, if you have a history of toxic shock syndrome, you should not use the cap. It is possible for a woman's vagina to be so long that she can't reach deep enough inside to place or remove the cap easily.

6. **Vaginal Spermicides – Jellies, Creams and Foams:** There are several types of spermicides which are really designed for use with a diaphragm or cervical cap or for

extra protection with a condom. Using spermicides with condoms gives much better protection against pregnancy and some STDs.

Cream or jelly comes in a tube with a plastic applicator and are available without prescription at drugstores. The cream or jelly is deposited just outside the entrance to your cervix at the top of the vagina. Foam is a white, aerated cream that has the consistency of shaving cream and contains a spermicide. Deposited just outside the entrance to your cervix at the top of your vagina, foam spreads into your vagina and covers the opening of your cervix, where it immobilises sperm and keeps the sperm from entering the cervix.

The active ingredient (spermicide) in jellies, creams and foams is usually nonoxynol-9, which can irritate vaginal tissue, particularly with frequent or prolonged use. Some women have allergic reactions to spermicides.

7. **Natural Birth Control:** The methods dealt with above are artificial ways to avoid pregnancy but there are also natural methods of birth control. Fertility Observation and Abstinence are means of avoiding pregnancy without the use of drugs or surgical procedures.

Fertility Observation: Using Fertility Observation is a simple yet accurate way to understand when you can and cannot get pregnant as your cycle unfolds. It is based on observing changes in your fertility signs and relies on the principle that you are fertile during only about one-third of each menstrual cycle. The signs, which you must observe and record to be able to accurately determine whether you are fertile, are cervical fluid and basal body temperature.

Cervical fluid (mucus): This is a sticky substance that comes from the vagina at different times of the month. It tells when your fertile days occur in each cycle and when your period is due. It usually occurs near the middle of the cycle, and the amount increases when you are most fertile. This is when ovulation (release of egg) also occurs. It is at this time that you are most likely to become pregnant. The cervical fluid goes away gradually and comes back when your period is about to start.

Basal body temperature (BBT): Basal body temperature indicates ovulation after it has occurred, identifies infertile days after ovulation, and confirms pregnancy. Temperatures are lower before ovulation and higher afterward. Before ovulation, a woman's temperature on awakening is usually 97 to 97.5 F. After ovulation the range is usually 97.6 to 98.6. A rise for up to three days of at least 4/10 of a degree Fahrenheit confirms that ovulation has occurred. If basal body temperatures remain high for more than 17 days – and there is no fever or illness – pregnancy is likely.

To prevent pregnancy you can either postpone all sexual intercourse when you are fertile or use a barrier method during that period. Using Fertility Observation methods

without barriers such as a condom does not prevent STDs or HIV infection.

Abstinence: This is probably the safest method of birth control and avoidance of sexually transmitted diseases – to abstain from sexual intercourse.

Other Birth Control Methods and Implants

Intrauterine devices (IUDs), tubal ligation and male sterilisation (vasectomy) are some other methods of birth control.

Intrauterine devices are inserted into the uterus and work on the principle that a foreign body in the uterus seems to prevent pregnancy most of the time. It is about as effective as the pill and does not introduce synthetic hormones into women's bodies. While the failure rate for the IUD is low, particularly for women over 30, women using IUDs have a greater risk of developing pelvic inflammatory disease during the first few weeks after insertion. However, when the practitioner places the device correctly in the uterus using basic infection-prevention measures, and the woman also takes steps to minimise vaginal infection, the risk of infection is low for healthy women. IUDs are not a barrier to STDs or HIV infection. A doctor should be consulted about the use of IUDs.

Sterilisation is a permanent method of birth control available for men and women. In women the fallopian tubes are cut and/or blocked so that the egg and sperm cannot meet. This is called tubal ligation. In men, the sperm duct (vas deferens) is cut and/or blocked so that sperm cannot mix with seminal fluid. This is called vasectomy. While there have been some successful attempts at reversing tubal ligations and vasectomies, the operations should be considered permanent and not reversible. Sterilisation is best considered by those over 30 who have had children, since some women who are sterilised may later on wish to have more children.

Pregnancy and Childbirth

To become pregnant, a woman needs a healthy egg, the healthy sperm of a man and the presence of certain cervical fluid conditions.

A mature egg leaves the ovary about two weeks before the beginning of a menstrual period and it can be fertilised for only about 12 to 24 hours.

Once the cervical fluid is right, sperm can move through the uterus and into the fallopian tube where one may join an egg, resulting in conception. The egg (really a tiny ball of cells) then travels down the fallopian tube to the womb, where after one-and-a-half to two days, it implants in the uterine lining and develops over the course of the next nine months.

Implantation takes place about one week after conception. Alongside this ball of cells, called an embryo in the early

stages, a mass of tissue called the placenta develops. The placenta provides all the nourishment for the embryo. By the end of the second month a protective sac filled with fluid surrounds the embryo (now called a foetus). This is the amniotic sac, which serves as the foetus' protector.

Early signs of pregnancy include a missed period, a period that is lighter or shorter than usual, breast tenderness or enlargement, nipple sensitivity, frequent urination, tiredness, nausea and/or vomiting, feeling bloated or crampy, increased or decreased appetite, feeling more emotional or moody.

If you suspect that you are pregnant, you should visit a doctor or clinic. The doctor will want to examine you and give you a pregnancy test. The examination includes checking your breasts, touching your abdomen and feeling your uterus. An enlarged uterus after a missed period is usually as a result of pregnancy.

The pregnancy test is usually done on some of your urine to check the level of a hormone known as HCG.

Once a doctor has confirmed pregnancy, the first thing to be worked out is the date of the baby's birth. The length of a pregnancy is usually counted from the first day of the last normal menstrual period (LMP) and not from the day of conception. Normal gestation (carrying the baby) can range from 37 weeks to 43 weeks, with most births occurring between 39 weeks and 41 weeks. Only a small number of women actually give birth on the "due date", as this is really an estimation.

Visits to the doctor or clinic will be scheduled a month apart. During these visits, the doctor will check to see that everything is okay – the baby's growth is progressing as it should, the mother's health is in good order. Later in the pregnancy (from 28 weeks) the visits will become more frequent – from every two weeks to once a week in the final month.

Pregnancy is divided into three parts called "trimesters". The first trimester is the first 13 weeks after the LMP; the second is the 14th through the 24th week after LMP; and 25 weeks and later from the LMP is the third trimester.

During the first 12 weeks, the embryo grows from two cells into a fully developed foetus. At first, it hardly looks like a human. At 6 weeks it is only a half-inch long, with a reptile-like head and a tail, with bumpy projections where the arms and legs will be. At the end of 8 weeks, the embryo is much more like a human. Already it is an inch long and the arms and legs have grown and now have fingers and toes. By now all the main organs of the body have formed. At this stage, you may have nausea and your breasts are bigger, heavier and more tender to the touch.

Moods change easily during this early period of pregnancy, whether it's the first or fourth. Therefore if one minute you feel happy beyond belief and the next sadness overwhelms you, this is normal.

By the end of week 12, the nausea may have stopped and the uterus can be felt peeping out of the pelvis. The foetus is now three-and-a-half inches long. Nails are appearing as well as the external genital parts but it is still hard to tell if it's a boy or girl. The foetus can now swallow and begins to drink the amniotic fluid in which it lives. At the same time, it starts to pass drops of urine into the amniotic sac.

The second trimester is usually the most comfortable part of pregnancy even though there's lots of activity going on. At four months the foetus takes up more space in the womb and begins to announce itself by making the abdomen bulge. During this time a woman starts to feel a faint fluttering in her womb. These are the baby's first movements – called quickening.

As the weeks pass, your bulge gets bigger and bigger, with the weight of the womb increasing 20 times. In some women, the line from the navel to the pubic region darkens as well as the pigment in the face. At this stage women tend to sweat a lot as well. The breasts, which have got even bigger and heavier, are just about ready to begin nursing.

Mild swelling of the hands and feet is normal at this time. However if you also feel dizzy, have headaches and feel nauseated, see a doctor immediately.

The baby's internal organs are becoming more mature and from mid-pregnancy the growth of the placenta slows down while that of the baby speeds up. The baby's body is now covered in a fine, downy hair and the skin is wrinkled, as not much fat has been deposited.

By the time the third trimester begins, the growing womb may push the navel inside out. The baby's movements are now quite energetic and a shift in position can be seen from outside, with an elbow or knee sometimes sticking out. Even though the mother-to-be feels generally well, she may get heartburn and be constipated as well. Changes in the diet usually help.

A woman's centre of gravity changes during this period, as she has to balance her growing womb with the rest of her body. It also becomes more difficult to find a comfortable position lying down. It is best to sleep on one's side as lying on the back can cut down the blood supply to the uterus.

Mildly swollen hands and ankles are normal still but if the swelling looks excessive or is accompanied by headaches and dizziness, contact a doctor immediately. This may be a sign of preeclampsia, a condition that affects women in their third trimester. Untreated or undiagnosed, this condition can develop further resulting in convulsions and the death of the baby. Sometimes the early signs may be serious enough for the mother-to-be to be admitted to hospital.

Keeping your feet raised (like on a footstool or chair) during the day helps with normal swelling of the feet.

The baby is growing at a rapid pace and by birth weighs about seven pounds (3.2 kg) on average.

As the weeks pass and the due date draws nearer, many women feel very hot, tire easily and are anxious for the baby's birth. Some time between weeks 36 and 38 (or even before in some cases) the baby's head settles into the pelvis. This is called "lightening" or "dropping" and is very noticeable in some women – a high belly suddenly becomes low.

Women who attend a clinic at the local hospital or health centre will be given information about the labour and birth and what to bring to the hospital. Others usually attend private antenatal classes. Partners are often invited to these sessions to learn more about the birth of their baby and to hear in what areas they can assist during delivery.

Frequent and intense contractions of the womb are one of the first signs of labour. (Painless contractions are normal from 28 weeks.) Some women also have diarrhoea a few days before labour begins. Others have a sudden burst of energy, or an urgent need to sleep.

Following this, a woman may have a "bloody show" or her "waters may break". The bloody show is the appearance of pink, blood-tinged mucus, which was sealing the cervix. The "waters" are really the amniotic fluid, which is coming from the broken membranes of the sac. It is usually clear or milky and odourless and may either gush or trickle out. Women often say it feels as if they're wetting their pants. However many women do not experience the bloody show or the waters breaking until labour is well advanced.

Contractions start off feeling like gas pains, cramps, backache, or a pulling and stretching in the pubic region. They may be regular (for instance, every 10 minutes) or may be spaced out and irregular. With a first baby, this period of the first stage of labour (called the quiet phase) may go on for a long time – all day sometimes. During this time the cervix gets ready for the birth of the baby by stretching open (dilating).

The quiet phase ends when the nature of the contractions change. They become much stronger, more frequent and the dilation of the cervix makes progress. When the cervix has stretched to 10 centimetres wide, it is time for the baby to be born.

A woman now enters the second stage of labour when the contractions are really intense and pressure on the rectal area is strong. There is also an urge to push or bear down. Helped by a doctor or midwife (and partner), the mother-to-be will know when to push and when to rest in between contractions. With each contraction, the baby's head comes further and further down until it emerges. And step by step it is born, twisting and turning as it comes out.

It is now common practice to give the baby to the mother immediately after birth (and the umbilical cord has been cut) to allow breastfeeding. Labour is not complete yet, as the placenta (afterbirth) has to be delivered. Breastfeeding usually helps this process. Most of the time, doctors give an injection to make the womb give a big contraction to expel the placenta.

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Contractions will not stop now either. They continue for a while as the womb gets back into shape (especially when nursing the baby).

After the first breastfeeding, the baby is taken away and cleaned up and the new mother, usually exhausted at this stage, is encouraged to rest and sleep.

Caesarean Sections: If at some time nearing the end of a pregnancy, the baby's head is not in the pelvic region, then it is in a breech position. If it fails to turn before labour begins, the doctor will discuss giving birth by Caesarean section. C-sections are also scheduled when a woman's pelvic structure is not strong or big enough for a natural birth. In addition, emergency C-sections are performed when women have been in labour for hours and hours and no dilation of the cervix has occurred.

A C-section is a major surgical operation where an incision is made in the lower abdomen (just above the pubic hair) and the baby is taken from the womb. In more developed countries, the woman can have an anaesthetic during which time she is awake, and therefore sees her baby on birth. However, in most hospitals in the Caribbean, a general anaesthetic (the woman is put to sleep) is given and the surgical team has the task of reviving the baby and then the mother. Breastfeeding is usually delayed (for several hours or a day) in this case.

Postpartum Problems

After giving birth to a baby a woman usually experiences mixed emotions. The transition from pregnancy to motherhood, whether it is the first time or sixth time, is a time of change. Physically, you have to recover from giving birth; emotionally, there's joy as well as uncertainty and sadness.

There are many factors that influence your feelings: finances, health, and the amount of support received from family and friends.

Postpartum depression: Almost every woman has the baby blues. You may feel sad, weepy, moody, anxious, tired and your thinking may even be fuzzy. Usually these feelings go away by themselves within a few days.

However, when the blues do not disappear on their own but persist and you feel worse as time passes, then you may be suffering from postpartum depression, which can range from mild to severe.

If you feel any combination of the following: lonely, guilty, uncontrollably sad and weepy, unable to sleep, unable to eat, inconsolable, irritable, uninterested in affection or sex, exhausted, helpless, suicidal, angry at your baby or others, resentful, frightened, you need help from a medical expert.

Certain stresses and situations place you at risk for postpartum

depression. These include problems in the relationship with your partner (such as disappointment with the level of support, abandonment, abuse) or death of your partner.

Social isolation is another factor. If you are new to a country or community where you know no one and have no family support, this can lead to postpartum depression.

Other factors include a baby with colic or with a difficult temperament, job loss, financial difficulties, the burden of being a single mother with little support for that status from family and friends, and past episodes of depression.

Postpartum depression can really take a toll on you. Everything seems to be a big undertaking. Sometimes you feel as if you can hardly get out of bed on mornings. Apart from seeing an expert for guidance, you can do certain things to help overcome postpartum depression. For instance you can look for opportunities to spend with other adults, including new mothers, to discuss your feelings and generally have emotional support.

Postpartum anxiety: Apart from the usual feelings of worry, this problem usually extends to difficulty concentrating, sleeping or running your household. You may even have physical symptoms such as rapid heartbeat, sweaty palms, trembling or difficulty breathing. If you notice these signs, you need to see a medical expert.

Postpartum psychosis: This occurs in very few women but it is still worthwhile to know about. It's a very serious condition that can be treated successfully. Symptoms include: you feel that you are being ordered by God or another power to do things such as harm yourself or your baby; you are hearing things that other people don't hear; you experience very high and very low energy or mood; you feel totally out control and cannot take care of your baby. If you experience any of these, get a friend of family member to take you to a clinic or doctor.

Apart from these mostly mental difficulties, there can be some physical postpartum problems. After giving birth your body undergoes "a pregnancy in reverse". Your womb gets back down to the normal size, contracting as it does so. If you are breastfeeding, you'll feel these contractions during this activity as it triggers the release of hormones. These can be very strong if it's your second or later baby.

The uterine tissue that is broken down is also discharged and you'll have bleeding similar to a heavy period, lasting from two to four weeks. If the bleeding is unusually heavy or if there's a noticeable or unpleasant smell, visit the clinic or doctor, as there might be an infection.

Postpartum problems such as depression or anxiety are not limited to first-time mothers nor is it restricted to happening only once to a woman. If your situation has changed (such as the relationship with your partner, finances), then the new circumstance can be the trigger for postpartum problems with later children.

Infertility

Infertility is defined by most doctors as the inability to conceive after a year or more of sexual intercourse or insemination. It also takes the form of repeated miscarriages or stillbirths. The inability to conceive or stay pregnant after giving birth once or twice is also regarded as a form of infertility – secondary infertility.

Many people still believe that infertility is a woman's problem. In fact it is both a man's and a woman's problem. While infertility statistics are not available for the Caribbean region, in the United States, for instance, male and female factors are equally responsible for infertility (40 per cent each), while combined factors account for 10 per cent of cases and the other 10 per cent is unexplained.

There are many causes of infertility. Tests carried out by a medical expert are the only way to be sure of a diagnosis of infertility. Statistics show that 50 per cent of infertility cases are treatable. In the Caribbean there are not many doctors who specialise in infertility – the gynaecologist is generally the person to make this diagnosis and treat it.

Certain physiological events and their timing are at the core of fertility. To begin with there must be healthy sperm in sufficient quantity as well as a mature egg. Further, after being deposited in your vagina, sperm must be able to move properly to meet the egg while it is still in the fallopian tube. Since an egg may live as little as 12 or 24 hours and a sperm as little as one or two days, timing is very important. Once the egg and sperm join together, the new organism must be able to implant itself properly in the uterine lining for growth. A fertility check, therefore, looks to test all these links.

Male infertility: A man may experience infertility for several reasons.

- (i) There can be problems with the production of the sperm as well as how they mature. Causes include infection (such as that caused by mumps after puberty); undescended testicles; drugs; chemical and environmental factors; a varicose vein in the scrotum. Hot saunas and baths can also affect sperm production for several months.
- (ii) There may be problems with the movement (motility) of the sperm due to abnormally thick seminal fluid. In addition certain drugs (such as those used to treat emotional disorders, stomach ulcers and hypertension) can affect production and motility.
- (iii) Scar tissue can block the passageways through which sperm travel. The scar tissue may result from infections or untreated sexually transmitted diseases.
- (iv) A man might not be able to deposit the sperm into the

cervix. This may be caused by sexual dysfunction such as impotence or premature ejaculation or by structural problems in the penis, for example when the opening of the penis is not on the tip. In addition spinal cord injuries as well as neurological diseases also contribute to this problem.

- (v) General factors such as poor nutrition and overall poor health also affect male fertility. Alcohol, cigarettes and marijuana taken in excess can affect the quality of sperm.

Female infertility: The causes for a woman's infertility outnumber those for a man.

- (i) Barriers such as scarring around the ovaries or in the tubes, which prevent the joining of the sperm and egg, are one cause of infertility. The scarring can result from infection caused by certain IUDs, pelvic inflammatory disease, pelvic surgery or from an abortion that was not done properly or followed up on. Untreated STDs can also cause scarring or blockage of the tubes.
- (ii) Women who suffer from endometriosis are prime infertility candidates. Endometriosis occurs when tissue similar to that which lines the inside of the womb grows in other parts of the body. The most common area for growth is the pelvic region: on the ovaries and the tubes. Endometrial tissue usually responds to the hormones of the menstrual cycle – they build up each month, break down and cause bleeding. The result is internal bleeding, inflammation and the formation of cysts and eventually scar tissue.
- (iii) When certain glands, which regulate certain events in the body, are not working properly, this can cause a woman to have irregular periods or not to ovulate regularly, resulting in infertility. The normal menstrual cycle depends on the release of various hormones at specific times. If any one of these is not produced, or if there is not enough, the cycle will not be regular. A woman who does not ovulate regularly cannot pinpoint her fertile time.
- (iv) If a woman's womb or cervix is not of the right structure or shape, this will cause infertility. The structural problems may have been there from birth or may have come about as a result of exposure to the synthetic hormone DES (diethylstilbestrol).
- (v) Polycystic ovarian disease is a leading cause of infertility. Its characteristics include a lack of regular ovulation, ovaries with several cysts, and sometimes extreme overweight. There may also be problems with blood sugar levels and an increase in body hair due to a rise in male hormones.
- (vi) Cervical mucus that is too thick or acidic can act as a

barrier against sperm. In such conditions, sperm is prevented from moving properly up into the vagina. Infections which change the quality of the mucus also cause infertility and possibly early miscarriage.

- (vii) A woman or her partner may have sperm antibodies that hamper the sperm's movement by making them clump together or stopping them totally. While there's usually no pregnancy, in some cases miscarriage is the result.
- (viii) Age is another factor in female infertility. After 35, the ovaries produce fewer good quality eggs that can be fertilised and become embryos. This is even more pronounced after 40.
- (ix) Genetic abnormalities, extreme weight loss or weight gain, poor nutrition, environmental toxins and excessive exercise may affect a woman's fertility.
- (x) Lack of knowledge of your fertile period and the frequency of intercourse are considered as factors that contribute to female infertility.

If infertility is suspected, medical experts will carry out a number of tests on both a woman and a man to determine the cause of the problem. These will range from pelvic examinations and blood and semen tests to diagnostic surgery.

Treatments of course depend on the diagnosis. It may be a matter of taking some drugs for a specific time or you or your partner might have to undergo corrective surgery.

Generally speaking it is a very taxing time emotionally and financially. In the Caribbean only a limited number of tests are carried out and the area of infertility treatment has not been widely developed. The inability to have children is still treated with derision in some circles and women often have to suffer in silence.

Abortion

If you are pregnant, the decision whether to have the baby or an abortion is always a serious choice. Women choose to have an abortion for many reasons. It may be an unplanned pregnancy and you may not be able to afford a child. The pregnancy might pose a threat to your health or even your life. You may have become pregnant through forced intercourse such as rape or incest. Whatever the reason, you have to decide what is best for you and the important people in your life.

There are several methods by which a woman can have an abortion. They are generally divided into two main categories: *surgical* and *drug-induced*.

In a surgical abortion, the contents of the womb are removed. The method used depends on how far along the pregnancy is

and the equipment available. Up to a few years ago, drug-induced abortions were only done on women who were more than three months pregnant but there are now drugs that can induce abortion in early pregnancy. These drugs are only available in countries where women can choose to have an abortion. Few Caribbean countries have legalised abortion but many doctors still perform the procedures.

Surgical abortions: *Vacuum aspiration is the most common abortion procedure. It is performed during the first three months of pregnancy and chances of complication or risk are minimal. It takes about five to 15 minutes. During a vacuum aspiration abortion, the womb's contents are removed through a narrow tube inserted in the vagina and passed through the cervix into the womb.*

The tube, called a cannula, is attached to a suction-producing object like an electric pump or a syringe and it draws out the tissue. When a syringe is used, the procedure is known as manual vacuum aspiration. In abortions done after 12 weeks of pregnancy, if this method is used, the cervix might have to be stretched open (dilated) to accommodate a larger cannula. This procedure can take place at a doctor's office or clinic.

Dilation and evacuation (D&E) is used for abortions between 14 and 24 weeks. The cervix has to be dilated and a doctor removes the pregnancy using the vacuum aspiration technique along with forceps. This procedure is more complicated than the ordinary vacuum aspiration and there's also greater risk since at this stage the womb is softer and therefore easier to injure and there's more foetal tissue to extract.

A similar method to this is **dilation and extraction (D&X)**. The difference is that the foetus is removed intact. It is also used from 14 to 24 weeks. The cervix is dilated over several hours and the foetus is removed with forceps. Sometimes a needle may be inserted to collapse the foetal skull to make its passage through the cervix easier. Many times the placenta is removed by either aspiration or curettage, where the inside of the womb is scraped with a metal loop (curette). This method is often used when there are serious medical or foetal problems, allowing the doctor to retain intact tissue for examination. It also allows the woman to have an abortion without going through labour. It is usually done in a hospital.

In the Caribbean region, doctors perform a similar procedure to terminate unwanted pregnancies. This is a **D&C (dilation and curettage)**. This involves enlarging (dilating) the opening of the cervix by inserting a series of rods, each one larger in size. A curette is then used to scrape the lining of the womb. The procedure lasts from five to 15 minutes and can be done in a doctor's office although some medics prefer a hospital setting using general anaesthesia. Many women have some bleeding following a D&C and may also pass small clots and have some cramping.

The other surgical abortion method is called a **hysterotomy**. Always performed in a hospital, the doctor removes the foetus

by making a cut in the abdomen and then through the womb. It is usually done when a woman's life is in danger.

Drug-induced abortions: In early pregnancy (up to 7 weeks) there are two drugs used to induce abortion. One is the drug **mifepristone** known to the world as the abortion pill (also called by its French name, RU486). Taken orally, it is usually given along with a prostaglandin (several days later), which causes the womb to contract and expel the lining and the fertilised egg. The prostaglandin is usually in the form of a vaginal suppository.

Mifepristone interrupts pregnancy by blocking the action of progesterone, which prepares the lining of the womb for a fertilised egg and thus maintains pregnancy. It can prevent implantation of an egg or bring on a period if implantation has already taken place.

The other drug used for abortion in early pregnancy is **methotrexate**. This stops the pregnancy from growing and interferes with the attachment of the placenta to the wall of the uterus. It is also used along with a prostaglandin.

Drugs are also used for abortions in pregnancies past three months. This is usually referred to as labour induction. Two procedures are generally used in this method. The doctor injects an abortion-causing solution through the abdomen into the amniotic sac. Several hours later, contractions cause the cervix to dilate and the foetus and placenta are expelled. Many times a D&C is done to clean up any remaining tissue in the womb. This method involves spending a day or two in hospital.

Prostaglandin vaginal suppositories are also used to induce labour.

Women have different experiences after an abortion. Some feel fine while others feel tired or have cramps for a few days. Bleeding ranges from none to light to moderate bleeding for two or three weeks. Signs of pregnancy may last for a week. Sometimes about four to seven days after an abortion, some women experience bleeding, cramping, breast soreness, and/or feelings of depression. This is caused by a drop in hormone levels.

Recovery can be easier when certain things are avoided. For instance tampons should not be used. Nor should you have sexual intercourse for two to three weeks. This helps cut down on introducing germs that may travel to your uterus before it has healed completely.

It is important to have a follow-up exam by a doctor after two or three weeks. Even though your period won't return for four to six weeks, some form of birth control should be used as you can get pregnant again before your next period.

On the emotional front, positive, negative or mixed feelings are all natural. Some women feel guilty especially if society does not accept abortion. Others feel bitter and angry because they did not have much of a choice – they simply did not have the

support or resources to have the baby.

It is important to talk to someone – such as a close friend or a professional counsellor – about your feelings.

Possible Complications: As with any medical procedure, an abortion involves risks and complications. Generally though, serious complications are rare in those performed in pregnancies of up to 13 weeks. Any minor problems that do come up are usually handled in a doctor's office. Risk of complication is higher for abortions done in pregnancies later than 13 weeks. The later the abortion, the more chance of complications. Following are possible complications that can arise.

Infection: Signs include a fever of 100.5°F or higher, excessive bleeding, vaginal discharge with a foul odour, bad cramping. Antibiotics are used in the treatment of infections. A follow-up exam after the medication is very important. An infection can cause serious illness – even death – if left untreated.

Retained tissue: Sometimes tissue from the pregnancy is left behind in the womb. If it remains there, it may become infected. Very heavy bleeding, passage of large clots, bleeding for longer than three weeks or pregnancy symptoms lasting more than a week are all signs of retained tissue. Treatment involves extracting the tissue by an aspiration procedure or giving drugs to make the womb contract and push out the rest of the tissue.

Perforation: This occurs if a surgical instrument goes through the wall of the womb. It is a rare occurrence. A sharp pain or cramp during the abortion procedure will usually alert you that something has happened. Your blood pressure, bleeding and cramping are then monitored to determine how serious the damage is. The perforation can heal itself or it may require surgery to repair it.

Cervical tear: These generally heal on their own, with few requiring stitches.

Continued pregnancy: A rare occurrence, this happens when you have an early abortion (less than six weeks after the last period) or when you have a multiple pregnancy. If the pregnancy is not removed, signs of pregnancy (sore breasts, nausea, tiredness) are likely to continue. The abortion will have to be repeated a week or so later.

Postabortal syndrome: Another rare complication, this happens when the womb doesn't contract properly or when a blood clot blocks the cervix and prevents blood from leaving the womb. As the blood builds up, pain and cramping (and sometimes nausea) increase. Massaging the area just above the pubic bone can sometimes push out clots. If this does not work, then they have to be removed by an aspiration method.

While having an abortion does not decrease the chances of having a healthy baby later on, there is some indication that having several abortions may increase the chances of miscarriage or premature birth.

The Vulnerability of Women

Fibroids

Fibroids are non-cancerous tumours of the muscle in the wall of the uterus. They may protrude towards the inside or the outside of the uterus. They are made up of overgrowths of muscle cells and tissue. Uterine fibroids are extremely common – one in three women will have fibroids by the time they are 35. In addition, black women are three times more likely to develop them than any other women.

In many cases, women do not know they have a fibroid until a doctor tells them after doing a pelvic examination. That's because about 50 per cent of fibroids do not have symptoms. Fibroids vary widely in size as well as in location. They can be as tiny as a seed (1-2 mm) or as large as a watermelon (30 cm). Some of them even protrude from the uterus on a stem-like base. Generally speaking, doctors tend to grade them according to the size of the uterus like if there were a pregnancy (eight weeks, 12 weeks, 16 weeks etc.)

On the other hand, some women will go to the doctor after experiencing several symptoms including heavy and prolonged bleeding with their periods, backache, frequent urination, a feeling of pelvic heaviness, constipation, abdominal distortion and pain with sexual intercourse. In some cases, fibroids have been linked to recurrent miscarriages.

Medical experts still do not know what causes fibroids, but they do know that the hormone oestrogen is a key factor in their growth. For instance, during pregnancy when there are high levels of oestrogen in the body, fibroids sometimes increase in size, and when oestrogen levels drop off (like during menopause), fibroids tend to shrink and give fewer problems.

If a fibroid is discovered during a routine pelvic exam, the doctor should order tests to confirm that what he felt really is a fibroid. There are several procedures with which to do this. They are:

Ultrasound – a wand-like instrument is moved across the surface of the abdomen and sound waves create an image of the pelvic organs on a screen.

Laparoscopy – a thin telescope-like instrument is inserted through a small cut just below the navel and allows the doctor to see inside your abdominal cavity.

Hysterosalpingogram – an x-ray procedure which involves injecting dye into the fallopian tubes and the womb to highlight irregularities in their size and shape.

Hysteroscopy – a thin telescope-like instrument is

inserted through your vagina and cervix and then into the uterus, allowing the doctor to check for growths and abnormalities.

If one or more fibroid is confirmed, the doctor should give you specifics about the fibroid(s) and offer treatment options. It is in this area that women need to be very careful. Many doctors see a hysterectomy (removal of the womb) as the only way to treat it. This is not so. There are *several* different ways to treat fibroids.

There's a wait and watch approach. If the fibroid is symptom-free, have it checked again in six months. If it has not grown and still gives no problems, then a yearly check-up will be enough (unless something happens in that time).

Medication is another option. This is used to control the bleeding and/or shrink the fibroid. One drug that is used is called Motrin. It is taken 24-48 hours before the onset of the period and then taken throughout the cycle to help decrease blood flow. It may also help with cramps.

Another popular one is Lupron, which is used to shrink the fibroid(s). It blocks the production of oestrogen thus depriving the fibroid(s) of a vital growth ingredient. However this should not be taken for more than six months since it causes the same symptoms that are associated with menopause – hot flashes, vaginal dryness and so on. Unfortunately, the fibroid usually recurs within months of stopping this therapy. For very large fibroids, Lupron is given so that surgery is more manageable.

The other treatment option is surgery. Individual fibroids can be removed using a procedure called a myomectomy. Different techniques are used when performing this procedure. In a laparotomy, the abdomen is cut (4-inch incision) and the fibroid removed as seen by the surgeon. With a laparoscopy, a laparoscope is inserted through a tiny incision in the abdomen and a laser is used to remove the fibroid(s).

Myomectomy leaves the reproductive organs intact so that a woman's childbearing plans can continue. However there may be complications such as excessive bleeding during surgery and a hysterectomy might have to be done. Also, fibroids recur in 15 per cent of these cases.

A hysterectomy (removal of the womb) should only be considered when all other options have been explored. Research has shown that many of the doctors are unfamiliar with the newer (and less invasive) techniques and therefore suggest the one they know best.

Before agreeing to surgery, get a second opinion and if necessary a third opinion. A hysterectomy is a serious surgical procedure and has many side effects that should be discussed with a patient.

A woman's age and the symptoms associated with the fibroid(s) are two things to consider before deciding on the course of treatment for fibroids.

Cervical Cancer

Cancer is the growth of abnormal cells in the body. It is still not understood why normal cells become abnormal. But when they do, they begin to grow out of control, spreading throughout the body, taking over organs and preventing them from functioning.

Cancers may be slow-, moderate- or fast-growing – different cancers have their own pattern of growth, spread and survival time.

People of all ages can get cancer but it is most often found in older persons since it can take as long as 20 years to reach a detectable state.

While fewer women than men develop cancer and die less frequently of it than men, there are some cancers to which women only are susceptible such as cervical cancer. Breast cancer is one that is more frequent among women than men.

Cervical cancer usually affects women between 40 and 55 years of age.

If you go to a doctor or clinic for a regular check-up, the doctor will do a regular pelvic exam and suggest a Pap smear. This is a test that helps doctors see that everything is all right with the cervix.

To take a Pap smear, a doctor or nurse will first use an instrument (speculum) to stretch your vaginal passage and then insert a type of spatula to get one or more samples of cervical tissue. It usually feels like a scraping sensation. The cells are then placed on a glass slide and fixed there to prevent them from going bad. This is then sent off to a lab for examination.

If the result says "normal", then everything is okay and the test should be repeated in one to three years, depending on when your previous Pap test was done. If the result says "abnormal", you should have a second Pap smear done to confirm the "abnormality" since sometimes the test can give false readings. If this is done and the second result is also abnormal, then the doctor will want to do a colposcopy – a closer look at the cervix.

Using a magnifying instrument (colposcope), the doctor gets a more detailed look at the cervix. This test is also done in a doctor's office or clinic.

The examination itself does not hurt but doctors usually combine this with another procedure called a biopsy, which involves taking a thick but tiny piece of tissue from the cervix. It is the biopsy that may be painful. A colposcopy takes longer than a Pap smear and since the speculum is usually in the vagina for a longer period of time, this might therefore prove uncomfortable.

The samples are again sent to a lab and when the results come back, the doctor will advise you of the best treatment to follow.

With cancer of the cervix, there are two "stages" under which women are classified – **precancerous** and **cancerous**. The first stage is **non-cancerous** but it is important that you are treated if diagnosed with the conditions (and there are several) that fall into this category. The Pap smear is meant to detect precancerous changes in the cervix, which can be treated to try to prevent cancer from developing.

Generally, in its early stages, cervical cancer tends to have few symptoms, but early signs include a vaginal discharge, unexpected vaginal bleeding after intercourse, an unpleasant smell or abnormal vaginal bleeding.

Precancerous abnormalities can only be detected by a Pap smear or biopsy and therefore cannot be seen during a regular doctor's visit. On the other hand a doctor can usually see invasive cancers during a pelvic examination.

When there is abnormal cell growth, you will hear the terms *dysplasia* or *CIN* used. These are used to describe different stages of abnormalities, ranging from mild to severe.

Treatment differs at this stage – from simple to more serious. If the dysplasia is mild, your doctor might take a wait-and-see approach and repeat the Pap smear and colposcopy. That's because in mild dysplasia, normal cells return on their own.

If the dysplasia is deemed moderate, the abnormal cells will have to be destroyed. This can be done using cyrotherapy, cautery or LEEP techniques.

Cyrotherapy, also known as cyrosurgery, involves the use of liquid nitrogen that freezes the tissue, thus destroying it. This can be done in a doctor's office and takes several minutes. However the procedure may cause a heavy watery discharge.

In cautery, the abnormal tissue is destroyed using silver nitrate or an electrically heated instrument. Performed right after a menstrual period, it is usually done in a doctor's office. A scab forms after treatment and when this falls off (after a week or so), the healing process begins and is complete after seven or eight weeks.

During LEEP (loop electrosurgical excision procedure), a low-voltage, high frequency radio wave is passed through a thin wire loop, which is used to remove the abnormal tissue. The removal is over in less than a minute and the tissue can be examined soon after.

If abnormal tissue goes undetected or is left untreated, in some cases it invades the normal cells of the cervix. This means that a cancer has started. Tests will determine if it's **cancer in situ** referred to as CIS (meaning cancer in the cervix only) or if the cancer spread further to other tissue (invasive).

In cases of severe dysplasia or when cervical cancer is suspected, you will have to undergo a further diagnostic procedure called a cone biopsy – a chunk of the cervical tissue, in the shape of a cone, is removed for further inspection. Sometimes the part that is removed also gets rid of all the abnormal tissue. This is a major surgical procedure that is done in hospital under a general anaesthetic. Bleeding and infection are common side effects and are quickly treated by doctors.

The treatment of invasive cancer depends on the extent of the tumour in the cervix. If the tumour is small and is in the cervix only, a woman may be treated with either a radical hysterectomy or with radiation therapy.

If the cancer has not reached the lymph or blood systems, these treatments will *almost always* get rid of the disease.

When the tumours are large or the cancer has spread to other tissue or lymph nodes, the treatment has to be more vigorous. This usually means radiation therapy, sometimes along with chemotherapy.

A radical hysterectomy involves the surgical removal of the womb, the upper portion of the vagina, the ligaments and connective tissues that hold the womb in place. It is also routine to remove the lymph nodes in the pelvic area. A major operation, it means spending several days in hospital followed by several weeks of recuperation.

Sometimes it is necessary to remove the ovaries (oophorectomy). However this latter procedure should be a last resort especially in younger women as oestrogen will still be produced even though menstrual periods will cease and they will not longer be able to have children.

Radiation therapy, or the use of x-rays in treatment, is preferred when the tumour is large but it is just as effective for small tumours. This type of therapy is usually given in two stages. In the first phase, radiation is beamed to the tumour from outside of the body – very much like getting a chest x-ray, except that it lasts for a few minutes and is repeated daily for four to five weeks.

The second stage of radiation therapy involves placing radioactive devices inside the vagina up against the cervix to kill the abnormal cells. The device is left there for a limited time to give a high dose of radiation to the tumour itself.

During the first stage of radiation therapy, a patient can carry on as normal a life as possible, while setting aside time for the daily radiation appointment. The second stage requires a stay in hospital.

The main disadvantage of radiation therapy is that the ovaries are “turned off”, therefore a woman will have to take hormones.

Sometimes radiation therapy is combined with chemotherapy. The drugs are used to let the radiation act in a more powerful way against the cancer cells. Sometimes the drugs are given before the radiation to shrink the tumour first.

Although no one knows why the abnormal cells begin to grow in the cervix, there are certain conditions and situations that increase a woman's risk of developing this type of cancer.

First is failure to have a routine pelvic exam with cervical screening. In fact, it has been said that the most important weapon in the fight against cervical cancer is the Pap smear. If every woman had Pap tests at regular intervals, particularly women over 35 years of age, there would be far fewer cases than the estimated 400,000 cases of cervical cancer worldwide. Some say it might even be eliminated.

Infection with the human Papillomavirus (HPV), which is a sexually transmitted disease, also makes women vulnerable to cervical cancer. Many women who have HPV do not know they have the virus. It can cause genital warts and in some cases these warts are not easily visible.

Sexual intercourse at an early age also puts a woman at risk. Studies have shown that physical changes in the types of cells in the vagina occur during the teen years. As women grow older, the softer cells are replaced by a tougher type. Beginning intercourse before the changes are complete makes the cells more vulnerable.

A woman who has many sexual partners has a higher chance of developing cervical cancer. That's because she is more at risk to being exposed to sexually transmitted diseases (such as HPV, herpes, syphilis, gonorrhoea and chlamydia) which can cause cervical abnormalities. It should also be noted that even if you have had only one sexual partner, you can be at risk if that man has had many sexual partners, particularly those who might have HPV or developed cervical cancer.

Women who smoke, studies show, are more likely to develop both preinvasive abnormalities and invasive cancers.

Thus you can decrease your risk of cervical cancer by having regular pelvic exams and Pap smear tests and following the doctor's advice. Regular use of condoms (which can prevent the transmission of STDs) also helps.

Breast Cancer

The breasts are complex organs whose primary function is the production of milk. Over the years, society has had a fixation on breasts and they have come to represent much more than organs that produce milk to feed offspring.

To understand what can happen to the breasts, one has to understand a little about the development of the breasts.

Women's breasts change many times during a lifetime in response to changes in the body's hormone production.

Breast development begins when a foetus is six weeks old. At birth, they are mostly fatty tissue with some glandular (made up of tube-like structures called ducts) tissue under the nipples.

At puberty, the first major change takes place in a girl's breasts. The glandular tissue behind the nipple grows and reaches out into the fatty tissue (which also increases, with some of it taking on a fibrous texture), forming branches like on a tree. There are small ducts, which produce milk, and large ducts that transport the milk to the nipple.

In early adulthood all the tissue is quite thick. The general lumpiness felt during this period is due to firm clumps of glandular tissue supported by firm fibrous tissue and soft fat tissue.

By the early 30s the glandular and fibrous types of tissue begin to decrease. This is replaced by fatty tissue. As menopause approaches, and hormone levels drop, this continues to happen. After menopause, the breasts are made up of mainly fatty tissue and since hormone production has stopped, little is supposed to happen to the breasts. Therefore any change in how the breasts feel in post-menopausal women is a danger sign.

That's not to say that changes in how a young woman's breast feels is not a sign to have them checked, but it is a fact that every three out of four new cases of breast cancer are in women over 50.

Breast cancer is the leading cause of cancer death in women between the ages of 40 and 55 worldwide. It is also the most common cancer among women in many countries in the Caribbean.

Breast cancer starts out as a painless lump. However, lumps appear in women's breasts from time to time, therefore not every lump is cancerous. If a woman knows her breasts, then she would be the best judge of when something appears abnormal. The best way to "know" one's breasts is through a monthly breast self-examination described on the facing page. Most lumps are discovered by women or their partners. The best available tool is a regular **screening mammogram--x-ray** of the breast --coupled with a **clinical breast exam--** by a doctor or nurse

Other signs to be alert for include: unexplained pain in the breast with no lump; a thickened area of skin on the breast; swelling or distortion of the skin; unexplained discharge from the nipple; scaling or erosion of the nipple.

If you discover a lump in one breast, check the other breast. If both breasts feel the same, the lumpiness is probably normal. You should, however, mention it to your doctor at your next visit.

But if the lump is something new or unusual and does not go away after your next menstrual period, it is time to call your doctor. The same is true if you discover a discharge from the nipple or skin changes such as dimpling or puckering

Once a lump has been discovered a doctor will want take a small sample of cells for examination (biopsy). First the exact position of the lump will have to be known. This is done by either mammogram (breast x-ray) or ultrasound.

A biopsy can be performed using one of several methods, some using local anaesthesia, others general anaesthesia.

If the results of the biopsy are negative – that is, the tissue is non-cancerous – you still need to find out from your doctor exactly what's the problem is since some of these conditions are linked to an increased risk of breast cancer. If you are not satisfied with the doctor's explanation, it's good to get the report of the biopsy and get a second or even third opinion.

A diagnosis of cancer, scary as it is, does not sentence you to death. First the cancer will be "staged" – by finding out the extent of the tumour, the lymph nodes involved, and whether or not the cancer has spread to other parts of the body.

It is important to pinpoint the stage of the breast cancer since doctors use this to recommend the type of treatment to be given. The stages are:

Stage 0: Non-invasive breast cancer, also referred to as in situ cancer (meaning in one place). Here the cancer is usually in the ducts or in the lobules.

Stage I: This means there is a small lump (less than or equal to 2 cm in diameter) and the lymph nodes or other parts of the body do not appear to be involved.

Stage II: Here nodes can be felt and the tumour is between 2 and 5 cm in diameter. Tumours that are larger than 5 cm are included here if the lymph nodes are not involved. The cancer does not appear to have spread.

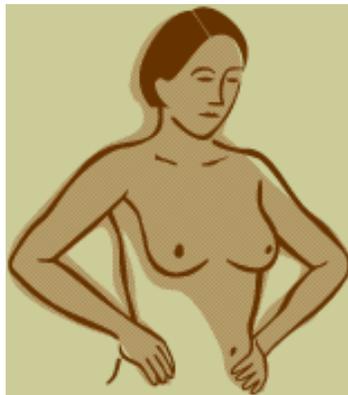
Stage III: The lump is large (bigger than 5 cm) and the lymph nodes are involved with cancer. Smaller tumours are included in this stage if they involve the skin or chest wall or if the lymph nodes are so involved with cancer they are matted together.

Stage IV: The breast cancer has spread to other parts of the body (usually seen on x-rays). At this stage, a cancer is not considered curable. Removal of the breast is not done unless

Breast Self Examination

To do the exam, follow these steps
(based on the American Cancer Society guidelines)

1 Using a mirror, inspect your breasts with your arms at your sides, with your hands on your hips and with your arms raised while flexing your chest muscles.



2 Look for any changes in contour, swelling, dimpling of skin, or appearance of the nipple. It is normal if your right and left breasts do not match exactly.

3 Using the pads of your fingers, press firmly on your breast, checking the entire breast area. Move around your breast in a circular, up-and-down, or wedge pattern. Remember to use the same method every month. Check both breasts.



CIRCULAR



UP-AND-DOWN



WEDGE

5 Gently squeeze the nipple of each breast, and report any discharge to your doctor immediately.

6 Examine both breasts lying down. To examine the right breast, place a pillow under your right shoulder, and place your right hand behind your head. Using the pads of your fingers, press firmly, checking the entire breast area. Use the same pattern you used while standing. Repeat for your left breast.



the breast is infected. Treatment tries to control symptoms for as long as possible.

Surgery is the main treatment for breast cancer. Other types of treatment used along with surgery include radiation, chemotherapy and hormone therapy. The type of surgery depends on the stage of the cancer. Therapy can either be local (therapy to the breast) or systemic (therapy to the whole body).

Removal of the entire breast is called total mastectomy. Removing only part of the breast is known as partial or segmental mastectomy, and lumpectomy removes the lump and surrounding tissue (the amount varies according to the tumour). Adverse effects from this procedure are scarring and disfiguring of the breast depending on the lump and size of the breast.

A total mastectomy removes the nipple/areola and all of the breast tissue but leaves the underlying muscles and the lymph nodes. Apart from the trauma of losing a breast, women may suffer with numbness of the skin, scarring and possible posture and balance problems related to the size and weight of the remaining breast.

Modified radical mastectomy involves the total mastectomy plus the removal of the underarm lymph nodes (used to stage the cancer). In addition to the effects of a total mastectomy, a woman may have a decreased resistance to infection as well as arm problems such as fatigue and swelling.

A radical mastectomy (no longer recommended in the US) goes further and removes everything including the underlying muscles as well as more lymph nodes. Greater arm problems result with the loss of the muscles and the skin over the rib cage is prone to healing problems.

Radiation therapy usually consists of beam treatments to the breast five days a week for five to six weeks. The area surrounding the removed cancerous tissue may receive a higher dose. During the weeks of treatment a woman may have fatigue, muscle pain, extreme sensitivity to the sun and swelling of the breast.

This therapy is usually combined with lumpectomy and is sometimes used after modified radical mastectomy.

Chemotherapy, hormone therapy or a combination of the two may be recommended following surgery, depending on the risk factors for recurrence of the cancer. This involves the use of drugs that have an effect on breast cancer cells. One hormone being tested on women with breast cancer is tamoxifen (an antiestrogen drug), which seems not to stimulate breast tissue, while still strengthening bone. However, it has been found to increase the risk of endometrial cancer. Since chemotherapy can cause early menopause, a woman's childbearing plans must be taken into account when considering this option.

Follow-up treatment is very important in a woman who has had breast cancer. This includes physical examinations and mammograms, blood tests, bone scans and x-rays. Women also

have to decide how to deal with a missing breast – whether to have reconstructive surgery or use an external prosthesis.

While any woman can get breast cancer, there are several factors which put some at higher risk than others. Age is one. If you are over 50, the risk is greater. If your mother, sister, daughter has had breast cancer, or even if someone in your family has had colon cancer, uterine or ovarian cancer, you stand a greater risk of getting breast cancer.

Hormonal factors also have a bearing on breast cancer risk. These include:

- starting having periods at a very early age;
- reaching menopause at a later than usual age;
- having a first living child at a late age;
- never having given birth to a living child or having few pregnancies;
- using hormone replacement therapy over a long period of time; and
- starting the use of oral contraceptives at a young age.

On the other hand, women who have breast-fed their babies, had a premature natural or surgical menopause, who keep their weight down and limit their alcohol intake to less than two drinks a day and get regular exercise are not at as great a risk if they don't.

Survival rates for breast cancer varies. About one in three women who get breast cancer eventually dies of it. However some may not die for as long as 10 to 15 or even 20 years after.

STDs

Sexually transmitted disease (STD) is a term used to describe more than two dozen diseases that are transmitted primarily through anal, oral or vaginal sex. Their effects however are not limited to the sexual organs.

The organisms that cause STDs usually enter the body through the mucous membranes (warm, moist surfaces) of the vagina, anus and mouth. However in some cases, exposure to sores or other types of skin-to-skin contact allows transmission of infections. Blood-borne infections (such as HIV) can be transmitted via cuts or lesions.

Most of the sexually transmitted diseases that are caused by bacteria and other small organisms can usually be cured with antibiotics or creams and lotions. STDs caused by viral infections however are not curable, but can only be treated.

In this section we will look at the more widespread STDs, their symptoms and treatments.

Among the most common sexually transmitted diseases are the two oldest known bacterial infections – syphilis and gonorrhoea. Chlamydia, also caused by bacteria, is becoming

widespread. Other common STDs caused by organisms include trichomoniasis, scabies and crabs. Common viral infections are herpes, HPV (human papillomavirus) and HIV.

Gonorrhoea: This is caused by a bacterium shaped like a coffee bean. It works its way to the genital and urinary organs and affects the cervix, urethra and anus. The disease can be passed on to another person through, genital, genital-oral and genital-anal sex. In addition one's eye can become infected with the disease when it is touched by a hand that is moist with the infected discharge. A mother can pass it to her baby during birth.

At least half of women with gonorrhoea may have no symptoms at first. Those who develop them, do so within ten days of infection. A discharge may be seen and there may be painful urination and burning. If the disease spreads to the womb and fallopian tubes, there may be pain on one or both sides of the lower abdomen, vomiting, fever, or you may feel pain during sexual intercourse.

While some men have no symptoms, most will have a pus-like discharge from the penis, which may be inflamed, and pain or burning while urinating. Frequent urination and/or blood in the urine are other symptoms.

It is important to check with a clinic or doctor if you have or your partner has, any of these symptoms. A test for the disease usually takes the form of a culture – a sample of the discharge or cells from the area thought to be infected by the organism.

Once gonorrhoea has been confirmed, antibiotics will be prescribed and must be taken by both partners. Often, chlamydial infection occurs side by side with gonorrhoea, so doctors usually prescribe antibiotics for that as well. Pregnancy should be ruled out before a woman begins treatment, since the main drug used is not safe in pregnant women; another drug, just as effective, will be prescribed.

Untreated gonorrhoea can lead to pelvic inflammatory disease (PID) in women, a serious and painful infection of the pelvic area. This can cause infertility.

Syphilis: Caused by a spiral-shaped bacterium, the disease can be transmitted through sexual or skin contact with a person who is at an infectious stage. A woman can also pass it to her unborn child. Syphilis spreads via open sores or rashes, found anywhere on the body, that contain the bacteria. Once the bacteria have entered the body, the disease may go through four stages, depending on when a person receives treatment.

The four stages are: primary, secondary, latent and tertiary (late). During the primary stage, the first symptom is usually a painless sore called a *chancre*. This looks like a blister or pimple and shows up between nine and 90 days after the bacteria has entered the body near the point of entry. This could be on the genitals, the fingertips, lips, breast, anus or mouth. Sometimes the chancre is hidden inside the vagina or within the folds of the labia, and is therefore missed easily in women. In

fact only about one in 10 women who get these sores notice them. And it is very infectious at this stage. In men the sore is spotted more easily since it often appears on the penis or scrotum, and they may get swollen lymph nodes in the groin.

The next stage occurs from one week to six months later. By this time, the bacteria have spread throughout the body. Signs include a rash (either over the entire body, or palms of hands or soles of feet), a sore in the mouth or flu-like symptoms. A raised area around the genitals or anus might also be discovered.

During the latent stage, which may last from 10 to 20 years, there are no outward signs. However the bacteria may be invading the inner organs, including the heart and brain.

In the tertiary stage, depending on which organs the bacteria have attacked, a person may develop serious heart disease, crippling, blindness and/or mental incapacity.

Two blood tests are used to confirm if a person has syphilis. Penicillin by injection, or a substitute in tablet form, is the treatment. It is important to have two follow-up blood tests to make sure treatment is complete since some people have relapses. The first three stages of syphilis can be cured with no permanent damage.

Chlamydial Infection: This is one of the most common bacterial STDs around today. It is transmitted during vaginal or anal sex with someone who already has it. It can also be passed to the eye by a hand that has infected secretion and from mother to baby during delivery.

Four out of five women with chlamydial infection do not have symptoms. For those who do, the most common sign is increased vaginal discharge, which usually develops seven to 14 days after exposure to the bacterium. Painful urination, unusual vaginal bleeding, low abdominal pain and bleeding after sex are other signs.

Men who are infected with chlamydia usually have a burning sensation when urinating and a discharge that appears one to three weeks after exposure. The symptoms are similar to those of gonorrhoea but milder.

Often only one member of a couple will have symptom while the other carries the infection. That's why it's important for both partners to be treated once the disease is discovered to prevent passing it back and forth.

There are now several different tests for chlamydia but the one most used is the culture – a swab from the infected area.

Treatment for chlamydial infection is with antibiotics – usually one called doxycycline. This is given for seven days. All of the medication must be taken or the infection might come back and cause more problems and even be more difficult to treat. The infection usually clears up within three weeks.

Chlamydial infection can cause very serious problems for

women including inflammation of the cervix, pelvic inflammation and infertility. In addition it can lead to serious complication during pregnancy and birth. In men, it can cause a condition known as NGU (nongonococcal urethritis), an inflammation of the urethra.

Herpes: This is caused by a virus known as the herpes simplex virus (HSV). After entering the body, the virus travels along the nerve endings to the base of the spine where it takes up permanent residence, feeding off nutrients produced by the body cells.

There are two types of the virus. With Type I, one gets cold sores or fever blisters on the lips, face and mouth, while Type II most often involves sores in the genital area. So generally speaking Type I is found above the waist and Type II below the waist. However there has been some crossover with the practice of oral-genital sex.

Genital herpes is the focus here. Transmission is by direct skin-to-skin contact during sex with someone who has an active infection.

Symptoms usually occur two to 20 days after infection although most people will not be aware of the symptoms until much later. An outbreak of herpes usually begins with an itching sensation of the skin in the genital area. This precedes the eruption of the sores. There may also be pains in the legs, buttocks or genitals, and/or a feeling of pressure in the area. Sores then appear, starting as one or more red bumps and changing to watery blisters within a day or two.

Women will usually have sores on the labia, clitoris, vaginal opening and sometimes on the buttocks, thigh, anus and navel.

After a few days, the blisters rupture, leaving shallow ulcers that may ooze or bleed. A scab normally forms after three or four days and the sore heals itself without treatment. While the sores are active there may be painful urination in women as well as a sharp, burning pain in the genital area, sometimes radiating into the legs.

In the early days after infection, men may experience pain in the testicles. This is followed by the appearance of sores on the head and shaft of the penis, but they can also appear on the scrotum, buttocks, anus and thighs. There may also be a watery discharge.

Genital herpes can be diagnosed by sight when the sores are present. There are several lab tests that can confirm the diagnosis or indicate the presence of herpes but few tests can distinguish whether it's Type I or II. Many people have been exposed to some kind of herpes in their lifetime so it's useless doing a test that cannot distinguish the two types. The best thing to do is to see a doctor immediately on noticing a genital sore.

Herpes has no cure, but it can be treated and the symptoms controlled. Usually the initial outbreak of genital herpes is the most painful and takes the longest time to heal. While some

people never experience a second outbreak, many do – within three to 12 months after the first episode.

Treatment includes taking antiviral drugs which help reduce the severity and duration of an outbreak. There are also ointments and creams that can be applied to lesions to speed up healing time.

Someone who has herpes has to learn to live with the disease and use barrier methods or abstinence as appropriate. Apart from the antiviral drugs, there are several alternative treatments on offer at health food stores and at alternative medicine practitioners.

Genital warts: These are caused by the human papillomavirus (HPV), similar to the type that causes common skin warts. There are over 70 types of HPV that cause invisible infections, warts or flat lesions in the genital area.

HPV is spread during sexual contact with an infected person. Genital warts appear from three weeks to eight months after exposure. Visible genital warts look like regular warts, starting as small, painless hard spots or flaky lesions. In women they often appear on the bottom of the vaginal opening. Sometimes they occur on the labia, inside the vagina or around the anus (where they are sometimes mistaken for haemorrhoids). As they grow larger, genital warts develop a cauliflower-like look.

In men, warts occur on the head of the penis (often under the foreskin), on the shaft and sometimes on the scrotum.

Diagnosis of warts is usually made on sight. An abnormal Pap smear may point to HPV in women and further examination such as a colposcopy will confirm it. There are several ways to treat genital warts. Solutions (including a type of acid) can be used on them. Also cryotherapy (freezing) can be used. If very large warts do not respond to other treatment, then surgery might be necessary.

It is important to remove warts to stop the spread of the virus. Sometimes warts reappear and they may have to be removed more than once. HPV is very contagious and a sure way of stopping its transmission is the use of a barrier method when having sex.

Pubic lice and scabies: Pubic lice (often called “crabs”) and scabies (itch mites) are tiny insects that live on the skin. They are sometimes spread sexually, but you can also pick them up by using the same bed linen, clothes, or towels as an infected person. Scabies, an itchy rash, is the result of a female mite burrowing into a person's skin to lay her eggs. Pubic lice infect hairy parts of the body, especially around the groin and under the arms. Their eggs can be seen on the hair close to the skin, where they hatch in five to 10 days.

Although some people infected with pubic lice have no symptoms, you may experience considerable itching around the genitals. You may see light-brown insects the size of a pinhead moving on the skin or oval eggs attached to your body

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hair. The main symptom of scabies is itching, especially at night. A rash may appear in the folds of skin between the fingers or on the wrists, elbows, abdomen, or genitals.

If either of these diseases has been confirmed by a doctor, treatment will take the form of special creams or lotions. It is best to follow the doctor's instructions on how to use the creams or lotions. In addition, you'll have to wash clothes and bed linen in hot water, or dry-clean or press them with a very hot iron. Partners should be treated for the diseases as well, even if they don't have an itch or rash.

Trichomoniasis: This is one of the most common STDs. It is caused by infection with an organism called *Trichomonas vaginalis*. About half of infected women experience symptoms including itching, burning, vaginal or vulval redness, unusual vaginal discharge, frequent and/or painful urination, discomfort during intercourse, and abdominal pain. Symptoms tend to worsen after menstruation.

Men do not usually have symptoms, but these can include unusual penile discharge, painful urination, and tingling inside the penis. Infection in men does not last long but it is easily transmitted during this time.

Diagnosis is made after samples of the secretions from the penis or vagina are sent to a lab to see if *Trichomonas* is present. Trichomoniasis is treated with antibiotics, usually a single dose of one known as Flagyl. Again it is important for partners, especially men, to be treated even if they do not show symptoms of the disease.

Sexually transmitted diseases are very common. The old belief that only promiscuous women became infected with STDs has long been shattered. A woman can catch an STD during her first sexual experience if her partner is infectious and neither of them uses a barrier method of protection.

Risk of catching an STD is lowered if a man or woman uses some form of barrier protection during sexual intercourse. Using more than one method lowers the risk more. Therefore latex condoms (male and female), vaginal spermicides and a diaphragm will help stop the spread of these diseases.

HIV/AIDS

To understand HIV and AIDS, one first has to understand a little about the immune system. This is the system that protects the body from infection and tumours.

Picture an army. Their main mission is to stop foreign elements from invading and taking over their country. While some soldiers have to work on the ground, others have to attack from the air.

Similarly, the body has specialised cells and proteins in the blood and other bodily fluids, which work together to get rid of

disease-causing agents and other foreign substances that invade our bodies and make us ill. Like the soldiers, the tasks of the cells and proteins are specific.

HIV, the human immunodeficiency virus, infects and destroys some of these specialised cells – specifically a type of white blood cell called T cells (CD4 lymphocytes). These are key fighters of infection in the body. As the T cells are destroyed, the immune system is weakened and the body therefore becomes vulnerable to infections and diseases.

One of the proteins that is created by our body's immune system to fight infection is an antibody. Like soldiers in an army, antibodies are assigned to fight specific infections. However, unlike antibodies to other viruses, antibodies to HIV do not destroy it.

An HIV test will therefore look for two main things – the presence of the HIV antibody and the amount of T cells in the blood.

The count of the body's T cells is an important indicator of the strength of the immune system or the severity of an HIV infection.

So how is this related to AIDS (acquired immune deficiency syndrome)?

The key word in AIDS is syndrome. This is used to describe a group of diseases. AIDS is a viral syndrome. It is not a disease but is diagnosed when certain diseases are present in the body, because the immune system is too weak to fight them off, as a result of HIV.

AIDS is the result of a weakening immune system that is brought about by advanced HIV infection. Therefore HIV is the underlying cause of AIDS.

AIDS is diagnosed when specific conditions exist – the presence of certain infections (termed opportunistic) or cancers and when the T cell count is less than 200 cells per microlitre (of blood). (Healthy adults usually have counts of 1,000 or more.)

Opportunistic infections rarely cause harm in healthy people. But in people with AIDS they are often severe and sometimes fatal because the immune system has been so ravaged by HIV that it cannot fight off certain bacteria and viruses.

Opportunistic infection common in people with AIDS cause symptoms such as coughing, shortness of breath, severe and persistent diarrhoea, fever, vision loss, severe headaches, weight loss, vomiting, extreme fatigue abdominal cramps or difficult or painful swallowing.

People with AIDS are particularly prone to developing various cancers; especially those caused by viruses such as Kaposi's sarcoma and cervical cancer, or cancers of the immune system.

The first cases of AIDS were reported in the 1980s. Since then it has become a major worldwide epidemic. At the end of 1998, an estimated 33.4 million people worldwide – 32.2 million adults and 1.2 million children younger than 15 years – were living with HIV/AIDS.

Among those aged 15 to 49, approximately one in every 100 worldwide is infected with HIV.

Women, especially, are at great risk. Of the adults living with HIV/AIDS more than 13 million (43 per cent) are women and their numbers are growing.

Transmission: HIV is spread most commonly by sexual contact with an infected person. The virus can enter the body through the lining of the vagina, vulva, penis, rectum or mouth during sex.

It is also spread through contact with infected blood. This can happen via a transfusion, but improved screening and heat-treating techniques have made this a small risk. On the other hand sharing needles or syringes contaminated with a tiny amount of blood, as practised by drug-users, is still a big risk.

Women can transmit HIV to their foetuses during pregnancy or birth. It is also spread through the breast milk of mothers infected with the virus.

While researchers have found HIV in the saliva of infected persons, there is no evidence that the virus is spread by contact with saliva.

It is not spread through casual contact such as sharing food utensils, towels and bedding, swimming pools, telephones and toilet seats. Nor is it transmitted by biting insects such as mosquitoes and bedbugs.

The fact remains that at present more than 75 per cent of all adult HIV infections (that's three out of every four cases) worldwide have resulted from heterosexual intercourse – sex between a man and a woman.

Early symptoms: Many people do not develop any symptoms when they first become infected with HIV. Some people have a flu-like illness within a month or two after exposure to the virus. They may have fever, headache, malaise, and enlarged lymph nodes (organs of the immune system easily felt in the neck or groin).

These symptoms usually disappear within a week to a month and are often mistaken for those of another viral infection.

This is a very infectious period, with HIV being present in large quantities in genital secretions.

The onset of more severe symptoms differs widely in people with HIV. They may not appear for up to 10 years after HIV first enters the body in some adults (within two years in children born with HIV infection); while others may begin to have

symptoms as soon as a few months have passed.

During this period, though, HIV is multiplying and killing off those T cells.

When the immune system gets weaker, certain symptoms surface. One is large lymph nodes (swollen glands) that may remain so for several months. Other symptoms include a lack of energy, weight loss, frequent fevers and sweats, persistent or frequent yeast infections (oral or vaginal), persistent skin rashes, pelvic inflammatory disease that does not respond to treatment, or severe herpes infections that cause mouth, genital or anal sores. Development in children may be delayed and they will often fail to thrive.

Diagnosis: Since early HIV infection often causes no symptoms, the only way to tell if a person has become infected is by testing his/her blood for the presence of HIV antibodies. These generally do not reach levels of detection until one to three months after infection. This may take as long as six months to show up so it is always best to have a test repeated after six months. Apart from blood, urine and saliva can also be tested.

Once an early diagnosis has been made, a person with HIV can get the right treatment and therefore stands a better chance of preventing those opportunistic infections from attacking his/her body. Early testing and diagnosis also alerts that person to avoid spreading the infection.

HIV tests are done in doctors' offices and clinics and numbers are used instead of names to ensure confidentiality.

Babies born to HIV-positive mothers may or may not be infected with the virus, but they carry their mother's HIV antibodies for several months. If there are no symptoms, a positive diagnosis cannot be made until they are 15 months old.

Treatment: There are a number of drugs used to fight HIV and its associated infections and cancers. These drugs (called antiretroviral drugs) fall into three classes. The first class, which includes the well-known AZT, interrupts an early stage of the virus multiplying. They may slow the spread of HIV in the body and delay the onset of opportunistic infections. However they do not prevent the transmission of HIV to other individuals. The second class is made of combination drugs – used with other antiretroviral drugs. The third class interrupts the virus multiplying at a later stage in its life cycle.

It must be noted that HIV can become resistant to each set of these drugs so combination treatment is necessary to suppress the virus successfully.

Taking these drugs produces side effects, some of which can be severe. AZT, for instance, causes red and white blood cells to drop and must be stopped when this becomes severe. Other side effects include nausea, diarrhoea and other gastrointestinal symptoms.

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Other drugs may also be used to treat some of the opportunistic infections that plague people with HIV. Once a person's T cells count drops below 200 (level differs for children), they may be given treatment to prevent the onset of a deadly pneumonia known as PCP (*Pneumocystis carinii* pneumonia).

Prevention: There is no vaccine for HIV so to avoid being infected, individuals have to stay clear of behaviours that put them at risk – unsafe sex and sharing needles.

While sex is part of our everyday lives and therefore difficult to avoid, there are, however, certain precautions to take that can lower the risk of infection via this route.

Since there is no way of knowing if a person is HIV-positive by the way they look, protected sex is the best way to lower infection risk. Latex condoms (only latex) provide such protection whether having vaginal, anal or oral sex.

In the Caribbean, sharing needles is minimal since in medical facilities this is not done and drug users hardly use this method.

The spread of HIV in the region therefore can be linked directly to sexual practice, that is failure to use latex condoms.

