The menstrual cycle is caused by the changes in a woman’s body that happen when an egg develops and the body prepares for a possible pregnancy. The menstrual cycle starts when a woman has a period. The first day of bleeding is called ‘day one’ and the cycle ends the last day before the next period starts. A normal menstrual cycle can range from three to six weeks (21-42 days, average 28 days) from the first day of one period to the first day of the next period. Women may bleed for about three-seven days with the first few days usually being the heaviest flow. At first, periods can be very irregular but after the first year they usually settle into a pattern. The pattern is different for each woman. The length of the menstrual cycle can also vary for each woman. Things such as stress, weight loss, exercise and travelling can affect the length of the cycle.

What happens during the menstrual cycle?
During the first part of the menstrual cycle hormones are released in a woman’s brain. These hormones act on her ovary and cause about 10 to 20 eggs to start developing. As they develop, these eggs produce the female hormone oestrogen, which causes the endometrium (lining of the uterus) to thicken so that it is ready for a possible pregnancy. Though many eggs start to develop, only one or two of them go on to become fully mature - the rest simply die. Eventually the egg bursts through the layer of fluid and cells that protects it, and is swept up by the feathery extensions of the fallopian tubes. Then it travels along the tube towards the uterus. This is called ovulation. If sperm are not around to fertilise the egg it will disintegrate over the next 12-24 hours. If the egg is fertilised by a sperm it reaches the uterus in about a week. If the fertilised egg successfully burrows in to the lining of the uterus, the woman is said to be pregnant. After ovulation, the layer of cells and fluid in the ovary, which protected the egg before ovulation, becomes the corpus luteum. This produces a hormone called progesterone, which is designed to make the lining of the uterus even more suitable for pregnancy. If there is no pregnancy the thick lining of the uterus, which was designed to nourish a pregnancy, starts to break down. This lining, made up of blood and tissue, flows out through the vagina as a menstrual period. The whole cycle then starts again.

Cervical mucus
Throughout the menstrual cycle, the cervix (the neck of the uterus that can be seen at the top of the vagina) produces mucus. The type of mucus changes throughout the menstrual cycle. As oestrogen increases in the first part of the cycle, the mucus from the cervix becomes thinner, clearer, wetter and more slippery – very similar to raw egg white. This helps sperm to travel into the uterus. When a woman is not in the fertile time of the menstrual cycle, the mucus is more sticky or gummy, and is usually white or yellowish in colour. Sperm find it hard to move through this kind of mucus. The position of the cervix and the shape of its central opening also change through the cycle. Around ovulation the cervix becomes softer and moves higher up in the vagina, and the opening at the centre widens. Some women also get some pain in the lower abdomen, or some light vaginal bleeding at the time of ovulation. These changes can be noted by people using fertility awareness based methods of contraception, to help them work out when they are fertile.

Menstruation
The average menstrual period lasts from about three to seven days, and the amount of blood loss can vary from cycle to cycle and from woman to woman. Less than
half of the menstrual fluid is blood, but because of this regular loss women need more iron in their diet than men. The menstrual flow can change through the period as well - usually starting heavier and tapering off at the end. Heavier bleeding is usually bright red and changes to dark red or brown, as the period gets lighter. The first period is called menarche. In Australia this usually happens when young women are between 9 and 16 years of age. Periods continue until menopause, which occurs when women are between 45 and 55 years of age. In Australia the average age of menopause is 51 years of age. The cycles often become heavier and more irregular for several years before the periods stop altogether.

Some women avoid having sex during their period. This can be for personal, religious or cultural reasons. Having sex during periods is not dangerous unless a woman carries an infection such as hepatitis B or C, which is carried in the blood and can be more easily transmitted to her partner at this time.

Menstrual protection
Sanitary pads (or napkins) are made up of layers of a soft material designed to absorb the menstrual flow. They come in a range of thicknesses - light, medium or heavy, and are usually attached to the underwear by means of an adhesive strip. They need to be changed every three or four hours and should be disposed of by wrapping and placing in a bin, or in special receptacles found in some women’s toilets. They should not be flushed down the toilet, as they will block the plumbing system. Some women prefer to use cloth pads, which can be washed and reused. Tampons are small cylinders made of cotton (or cotton and synthetic material), which are placed inside the vagina and expand to absorb the menstrual flow. Many women find tampons more comfortable and convenient to wear because they enable women to go swimming while they are menstruating, and they are less obvious under tight-fitting clothes. Tampons can be used by women who are not yet sexually active, though they may find it more difficult at first to insert the tampon comfortably, particularly if the hymen (the piece of skin that partly covers the vaginal entrance) is still in place.

Women using tampons for the first time may find it easier to experiment with a mini tampon, or try one which comes inside a cardboard applicator, which can be lubricated with plenty of water-based lubricant. A tampon which is properly inserted should not be felt by the user, and it is impossible for a tampon to ‘get lost’ inside the vagina. The string to remove it remains on the outside of the vagina, and to remove the tampon a woman simply pulls firmly downward on the string. Like pads, tampons should be changed every three to four hours. They should be disposed of in a bin or special receptacle and never down the toilet, since they can easily block the plumbing. There is a rare disease associated with tampon use called Toxic Shock Syndrome. This is caused by bacteria that normally live in and around the vagina but can sometimes multiply rapidly in a tampon. Symptoms include a high fever, rash, headache and generally feeling very unwell. The risk of Toxic Shock Syndrome can be reduced by washing hands carefully before inserting a tampon, by changing tampons regularly and by alternating tampons with pads, particularly at night.

Alternatively, a menstrual cup, such as ‘The Lunette’, can be used. It is a small silicone cup, placed in the vagina. It collects several hours of menstrual flow, which is simply emptied several times a day. It lasts for several years and costs around $50. It may appeal to women who are environmentally conscious or to travellers in areas where it is difficult to buy or dispose of pads and tampons.

Menstrual problems
There are a variety of problems that can occur with the menstrual cycle. Some of the common problems are covered briefly below but it is best to discuss any specific period problems with your local doctor or Family Planning clinic.

Amenorrhoea
This is the medical name given when a woman has no periods. Some women have never had a period - this is called primary amenorrhoea and is very rare. Primary amenorrhoea is usually due to a genetic or physical abnormality. If a young woman has not had a period by the time she is 16 it is important that she sees a doctor to make sure there are no medical problems delaying the period. A woman may also have had periods in the past but they have stopped. This is called secondary amenorrhoea and the most common cause is pregnancy. If a woman is not pregnant it is usually caused by a hormonal disturbance. These are often temporary and can be caused by such things as stress, weight changes, over-exercise, travel and emotional upsets. Sometimes periods will stop when a woman is in her thirties or forties because of early menopause. This sometimes runs in families. When the periods don’t stop completely but where there are long spaces of time between them, it is called oligomenorrhoea. Women who have no periods for more than six months or who have only three or four periods in a year should talk to their doctor.
Dysmenorrhoea
This is the medical name for painful periods. Most women have some pain with their periods. As long as it is not particularly severe and it settles after a couple of days, it is probably nothing to be concerned about. This common type of period pain is caused by hormones called prostaglandins, which make the muscles in the uterus cramp, and there are several things that may help. Popular remedies for mild pain include painkillers and anti-cramping medications such as aspirin, mefenamic acid (Ponstan®), naproxen (Naprosyn®), naproxen sodium (Naprogescic®) and ibuprofen (Nurofen®). These are more effective the sooner you take them. Paracetamol is used by some women, but is much less effective at reducing cramping. Some women also find herbal remedies, gentle exercise or a hot pack applied to the lower abdomen useful. More severe period pain will often settle if a woman starts to use a hormonal method of contraception, which stops ovulation and reduces menstrual bleeding. The most common method used is the combined oral contraceptive pill. If a woman still has severe period pain after trying all these treatments she may have endometriosis. This is a condition where the lining of the uterus grows outside the uterus. Endometriosis may cause other problems as well, such as pain when having sex, heavy periods and infertility. It is important for a woman who thinks she has very severe period pain to discuss this with her doctor.

Heavy menstrual bleeding
Heavy menstrual bleeding is defined as excessive menstrual blood loss which interferes with the woman’s physical, emotional, social and material quality of life. Heavy bleeding can be caused by many things, including hormonal imbalance, endometriosis and uterine growths such as polyps and fibroids. Sometimes a woman will bleed so heavily that she eventually becomes anaemic. Treatment will depend on the cause of the bleeding. See your doctor for advice.

Unusual vaginal bleeding
Bleeding between periods, bleeding after having sex and bleeding after menopause can all be a sign of serious problems. Even if the bleeding is very light, or only happens now and again, it is important to see your doctor for advice.

Premenstrual Syndrome (PMS)
This is a collection of different symptoms that some women have in the second half of their cycle leading up to their period. Family Planning NSW has further information on Premenstrual Syndrome; visit http://www.fpnsw.org.au/778561_8.html

For more information
- Contact the Family Planning NSW Talkline on 1300 658 886 or go to www.fpnsw.org.au/talkline
- NRS (for deaf) 133 677
- www.childrenbychoice.org.au
- See the Family Planning NSW factsheet: Unplanned pregnancy - abortion

The information in this Factsheet has been provided for educational purposes only. Family Planning NSW has taken every care to ensure that the information is accurate and up-to-date at the time of publication. Individuals concerned about any personal reproductive or sexual health issue are encouraged to seek advice and assistance from their health care provider or visit a Family Planning clinic.