Contraception

# Safe and Sure

## Contraception for Her and Him

BZgA
Bundeszentrale
für
gesundheitliche
Aufklärung


## On the information contained in this brochure

The information in this brochure is based on well-founded international guidelines. The recommendations in these guidelines were drafted by expert committees who studied existing scientific literature on the respective matter. Thus, these guidelines correspond to the present state of the art in scientific knowledge.

Further, the statements concerning contraceptive safety are based on high-quality international studies. Nevertheless, their validity is limited because different studies can produce very different data. The reason for this lies in the fact that the reliability of any particular contraceptive method depends on various different factors and, for example, may vary according to the respective population group or region.

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# Preface

## Dear **Readers,**

This brochure has been prepared to assist you in choosing an appropriate contraceptive method. It provides information concerning how the most common methods work, their application and safety as well as their respective benefits, disadvantages and costs. The information contained herein corresponds to the state of the art at the time this brochure was printed. It is intended to help you to make an informed decision either for or against using a particular contraceptive method.

A brochure, however, cannot replace individual counseling and a careful study of the package information delivered with the individual product. Every method has its own peculiarities, and every individual has their own history that must always be taken into consideration. Thus, it is also important that you visit your gynecologist, family doctor or local counseling service when searching for the proper contraceptive to fit your needs. This brochure can help to prepare you for that conversation and to collect the important questions to ask.

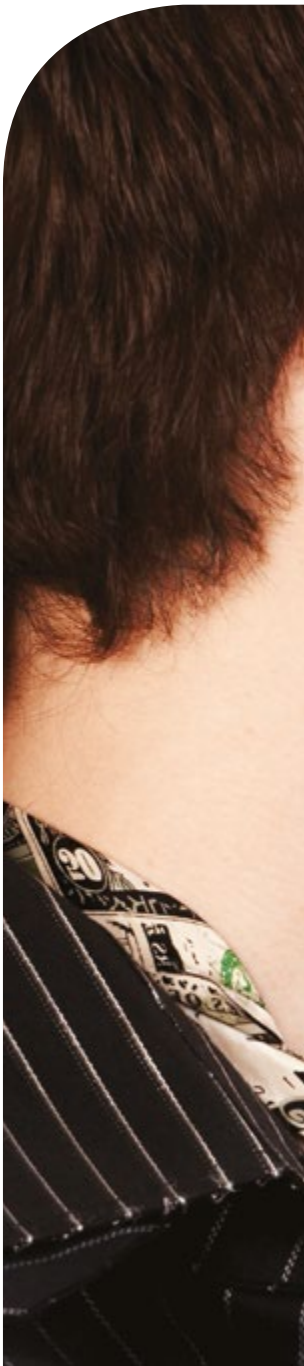
*The Editors*

For further information about contraception, please visit our website
→ **www.familienplanung.de**

# **Contraception** – more than just a word

For most people today preventing pregnancy is a natural part of their life planning. They may want to avoid an unwanted pregnancy or to decide on their own when to have a child.

There are many good ways to avoid an unwanted pregnancy. Yet no method is perfect, and only the individual circumstances can determine which means of contraception is best at any one time. Our needs also change in the course of our lifetime, so the methods men and women choose to employ also tend to change.



# Contraception is an **individual matter**

What constitutes human sexuality and how it is experienced is as diverse as human beings themselves. Women can become pregnant over a period of some 35 years, whereas men may remain fertile for much longer.

The question of contraception may crop up early for some people, for others much later, when they already have children. Many aspects play a role in one's preference for a particular method of birth control, such as age, type of personal relationship(s), health status, approach to one's body, need for spontaneity during sex and safety considerations.

## **More freedom** in one's life course

Because of the manifold different contraceptive methods available, women today are much freer to decide whether and when they want to conceive a child and who the right partner is. Many women prefer first to complete their education or vocational training, to earn their own livelihood or to commence a career before becoming a mother. Others may not have found the right partner for starting a family but still want to enjoy their sexuality. Still others find it important to plan the time between their pregnancies and allow their bodies to heal. And, of course, some women choose not to have children at all.

Today, more and more men are sharing the responsibility for contraception in their partnerships. And even if they cannot play an active role, for example, because of a lack of suitable methods, they still want to participate directly in the decision-making process.

Contraception makes it possible to enjoy sexuality without fearing pregnancy. For women that is a major advantage.

# **Choosing** a contraceptive

Unfortunately, no single method proves optimal for everyone and at all times since protection from an unwanted pregnancy must fulfill many different demands. The ideal method would be completely safe and reliable, free of all side effects, easily interruptible and without lasting effects on fertility. It would also be practicable for both men and women and people with impairments, cheap, easy to use and cause no discomfort during intercourse. Finally, it would be acceptable to all religions and cultures.

That, of course, is a lot to demand at once! As long as there is no "perfect" contraceptive method, the question becomes how to find the "right" contraceptive method for yourself and your sexual partner. The answer can vary considerably. The task is to weigh the benefits and disadvantages of each method and then to decide which of them would presently be the best choice for your personal needs. If you would like to become pregnant in the near future, the best method would be one that can be stopped at short notice; if your family is complete or you desire no (further) children, a best contraceptive would be one that is simple to use and can be taken over the long term. A broad variety of birth control methods is available, and it's nearly always possible to find one that fit your demands.

## **Important criteria** when choosing a contraceptive

**The following criteria are important when choosing and then applying a contraceptive method:**

- The level of overall safety offered
- One's present situation and age
- Existing health considerations
- Type of present relationship
- The level of protection offered against sexually transmitted diseases (e.g., HIV/AIDS)
- Attitude toward your own body
- Your sexual desires and needs
- Existing physical or learning disabilities

## **What is the best method for me?** Getting help

Discussions with others can often help when searching for the right method of birth control. That may be friends or relatives who have already had experiences with a certain method.

Physicians or counseling services also provide competent and objective information. Such direct contact is often the best way to discuss your own previous knowledge, wishes and needs.

These experts then make suggestions and describe the respective advantages and disadvantages, always keeping in mind of course your particular life circumstances, any impairments and individual health risks. They can also explain how a particular method functions and answer any questions. With some contraceptive methods, such as the diaphragm, the specialists lead you directly through the application.

## Other cultures, **other customs**

If you did not grow up in Germany or if your parents come from another culture, the way sexuality and contraception are practiced here may seem strange to you. Perhaps you appreciate that contraception can be openly discussed and readily obtained. But perhaps the whole situation is disconcerting to you, and it proves difficult to find your way around the subject. Maybe you or your partner have different opinions and approaches to the matter – or you are experiencing conflicts with your parents or your family.

In these situations, you can turn to the many counseling services available or to a physician or gynecologist of your choice for help.

These professionals can help you find the right choice for your needs.

A list of counseling services may be found under
→ **www.familienplanung.de/beratungsstellensuche**

## **The costs** of contraceptives

In Germany, contraceptives must generally be paid for by the patient, though there are exceptions: Young women up through the age of 21 who are ensured by a statutory health insurance company can receive free of charge contraceptive means prescribed by a physician (the pill, the minipill, contraceptive patch, vaginal ring, three-month depot/injection, hormone implant, IUD and emergency contraception). The medical necessity of the individual woman determines which type of contraception is prescribed and reimbursed. If several different types are possible, then the efficiency rules laid down in Para. 12 of the German Social Code, Book 5, are valid. This entitlement ends definitively with the woman's 22nd birthday. Certain co-pay sums may be payable between the age of 18 and 21.

Consultations with a doctor concerning contraceptives as well as any necessary control examinations, on the other hand, are always paid for by the statutory healthcare insurance.

Further, some provincial and municipal governments pay for the birth control of women with low income.

## Fertility and **pregnancy**

The following pages describe some of the basic processes that go on in the bodies of men and women and how pregnancy ensues. This information is intended to help you to understand how the various methods of contraception work and how safe they are.

Contraception always concerns both partners in a relationship, which makes it important that you understand not only what goes on in your own body, but also what is happening in your partner's body.

This brochure deals extensively with "men" and "women" and what happens in "male" and "female" bodies. However, not all people fit into this pattern of two sexes. Perhaps you were born in a body that does not clearly belong to either the male or female sex. Or, when you were born, you were designated as one sex or the other but no longer feel associated with that sex and see yourself as transgender or transsexual.

Regardless, the topic of contraception is important. Finding the proper method of contraception should always be oriented toward your personal sexuality and your individual reproductive organs. Today, an increasing number of doctor's practices and counseling services are open to these matters and can assist you in choosing the right means.

## The **female body**

With the onset of puberty, the female sexual organs undergo major changes. The breasts, labia and clitoris grow in size, and the first period occurs.

› THE REPRODUCTIVE CYCLE: The time between the first day of a woman's period and the last day preceding her next period is referred to as her menstrual cycle. Thus, the first day of her period is also the first day of the next cycle, and the day before the next period begins is the last day of a cycle. How long a cycle lasts can vary greatly, not only between women, but also between a woman's individual cycles.

Normally, a cycle lasts between 23 and 35 days, though every woman has her own individual rhythm.

External circumstances such as stress, illness, climate changes, travel and environmental factors can influence the length of the cycle and ovulation.

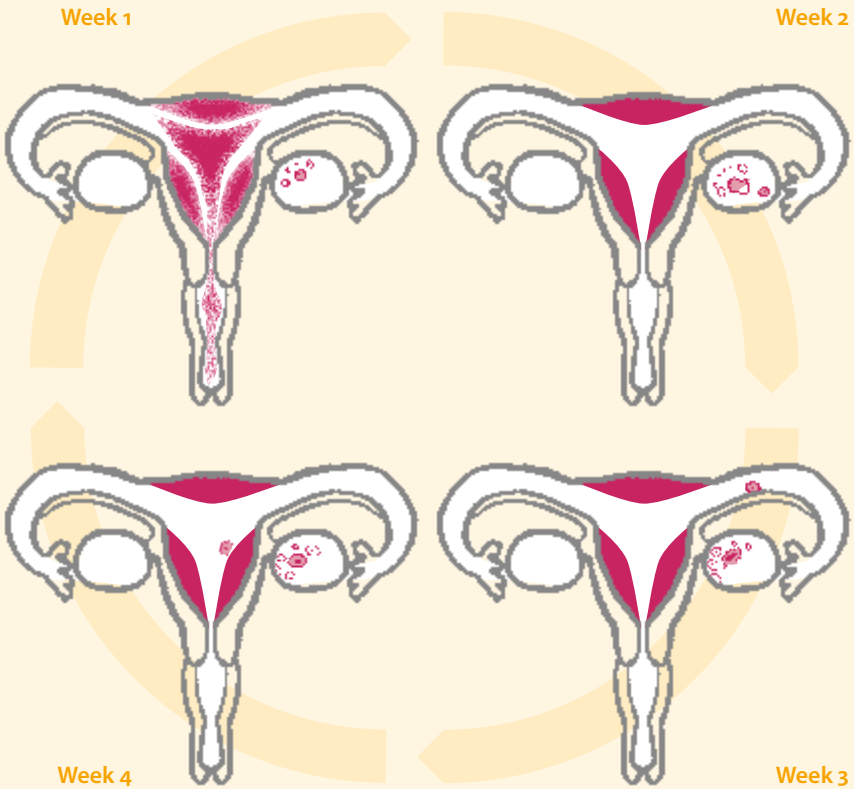
› OVULATION: Every girl is born with about 400,000 immature eggs in her ovaries. From puberty on, a new egg matures during each cycle. Once it has reached a certain degree of maturity, it is set loose from the ovary and travels into the Fallopian tube, which now lapses over the ovary with a rather frayed border. This is what is called ovulation. Some women experience a sort of tugging in their abdomen during this event, and there may be some light bleeding. The mucous that normally closes off the woman's cervix very tightly now be-

comes more fluid so that the man's sperm cells can more easily enter the uterus and reach the egg.

During a 28-day menstrual cycle, ovulation occurs about midway through the cycle, though in some women it can take place up to a few days before or after this date (➔ the temperature and mucous curves shown on p. 58). The chance of getting pregnant is highest during that time. The egg remains fertile for about 24 hours after ovulation. If it meets up with sperm cells in the Fallopian tube, the egg can be fertilized – the chances for which lie at around 25–30%.

A fertilized egg takes about 4 to 5 days to reach the uterus from the Fallopian tube. During this time, under the influence of female hormones (estrogen and progesterone), a thick, well-circulated layer of mucous forms on the wall of the uterus in which the egg can properly lodge.

If the egg, however, is not fertilized, the endometrium (the lining of the uterus) breaks down after about 2 weeks' time and is then excreted. That is what is called a woman's menstruation or sometimes her period. And then a new cycle begins.




**The menstrual cycle** consists of two phases: the follicular phase, during which the egg matures, and the secretion phase following ovulation. If conception does not occur, the lining of the uterus is shed during menstrual bleeding.

› MENSTRUATION: A girl's first period – her menarche – usually occurs in early puberty, between the ages of 12 and 13. Presently, the average age at menarche is 12.3 years, though some girls get their first period at age 10, others not until age 15. It is not possible to predict when a girl will have her first period, though the body usually announces its arrival some 6 to 12 months in advance by excreting a white discharge (the so-called leucorrhea) triggered by hormones. The menstrual cycle generally lasts between 23 and 35 days.

Biologically speaking, the optimal time for a woman to become pregnant is between the ages of 20 and 30 years.

Thereafter her fertility gradually decreases. Yet those are only average values: In some cases, a 37-year-old woman may in fact be more fertile than a 27-year-old woman. Thus, for many women age is only one aspect in deciding when to have a child.

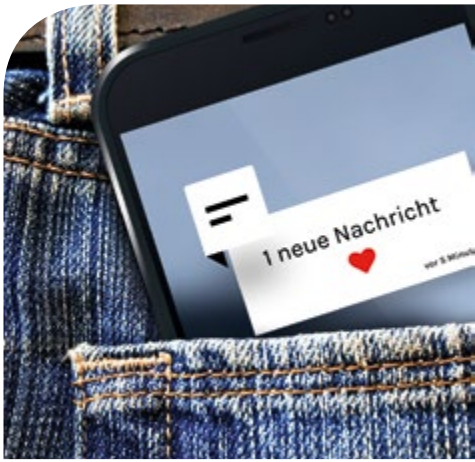
› MENOPAUSE: The last menstrual cycle – the menopause – occurs equally as individually as the menarche, whereby the statistical average lies at around 52 years. Many women are still ovulating at this point in time, albeit often irregularly, so that contraceptive measures are generally necessary until about 1 year after the last period, to preclude any chance of becoming pregnant. Women under the age of 50 who experience menopause should continue to use contraceptives for 2 years to be on the safe side.

## The **male body**

In boys, puberty normally begins between the age of 10 and 15 years. The penis and the testicles begin to grow. The testicles then begin to produce millions of sperm cells daily under the influence of the male sexual hormone testosterone. These sperm cells are stored in the epididymis.

Ejaculation occurs at the pinnacle of sexual arousal (orgasm). Contractions in the prostate gland cause the sperm cells to be discharged through the penis. If the boy or man does not have an ejaculation for an extended period, the body reabsorbs the sperm cells.

Of the many hundreds of millions of sperm cells that enter the woman's vagina during intercourse, only a very small portion ever reach the egg – and it takes



only a single sperm cell to fertilize the egg. For this reason, for any method of male contraception to be effective, it must be effective for all sperm cells.

Much as a young girl can be impregnated from her first ovulation on, a young boy can also impregnate from his first ejaculation on. Thus, both partners must attend to birth control from the very first time onward.

## Hormones

The most important hormones relevant to sexuality and reproduction are estrogens, progesterone and testosterone, all of which are produced by the so-called gonads – in women the ovaries, in men the testicles – and regulated by the pituitary gland.

The hormones of the pituitary gland stimulate the ovaries and the testicles. In women, they cause the egg in the ovaries to mature and ovulation to take place, and they also trigger the production of estrogens and progesterone. In men, they lead to the production of sperm cells in the testicles and testosterone. Estrogen, progesterone and testosterone in turn regulate the function of the pituitary gland.

The sexual hormones affect the body in many different ways. Estrogens are responsible, among other things, for building up the lining of the uterus; progesterone sees to it that the uterus is supplied with blood and all necessary nutrients – both of which are prerequisites to the fertilized egg remaining implanted in the uterus lining and not being discharged. If in turn the egg is not fertilized, the progesterone level is greatly reduced after about 14 days' time and the woman's period commences. A new menstrual cycle and the maturation of the next egg then begin.

Hormonal contraceptives, such as the pill, the patch, the vaginal ring, the hormone IUD, the three-month depot and the hormone implant, contain artificially produced derivatives of the natural hormones estrogen, progesterone and testosterone. They are used specifically to prevent pregnancy.

## Fertilization

If the male's sperm cells can make it into the woman's vagina, the woman can get pregnant. They then make their way from the vagina through the uterus to the Fallopian tubes. If sperm and egg meet there, they unite.

An egg that has left the ovary and made its way into the uterus is fertile for about 24 hours. Yet the sperm cells can, as it were, wait on the egg to come to them: They can survive and remain fertile in the uterus and the Fallopian tubes for up to 5 and in some cases even 7 days.

This means that any unprotected intercourse that takes place a few days before ovulation can still lead to fertilization and thus pregnancy.

This is also the case when ejaculation takes place outside the body, especially directly at the opening of the vagina. Here, too, care should be taken.

If a pregnancy is in the planning, it is recommended that the woman begin taking folic acid supplements (0.4 mg/day) about 4 weeks before fertilization to reduce the risk of certain birth defects (neural tube defect or spina bifida) (➔ www.familienplanung.de/ernaehrung).

## **Pregnancy** and the development of the embryo

Once the egg and the sperm cell have united, growth begins at a high rate. The cells of the fertilized egg divide continually and travel in the form of a small ball of cells into the uterus, where it is lodged in the lining about a week after fertilization. Now the entire female organism begins to prepare itself for pregnancy. The first and often most obvious sign that a woman is pregnant is the absence of her subsequent period (➔ p. 13).

The time between fertilization of the egg and the birth of the child is on average about 266 days (ca. 9 calendar months), although births that occur 2 weeks before or after this calculated time are still considered normal.

The child's organs and limbs develop in the first 3 months of the pregnancy, during which time any illnesses, genetic predispositions or external influences experienced by the mother may have very negative effects on the developing fetus.

To protect the embryo, a pregnant woman should therefore avoid alcohol and nicotine and discuss the intake of all medicines during this time with her physician.

→ Further information on the reproductive processes in the female and male bodies may be found in the brochure published by the BZgA entitled "**Ein kleines Wunder: Die Fortpflanzung**" (Reproduction: A Small Wonder), order no. 13621001, as well as on the internet under **www.familienplanung.de/fortpflanzung.**

# Visits to your **physician**

Many questions concerning the sexual organs, contraception and sexuality in general can be discussed with your gynecologist or urologist. They are the contact persons of choice especially if problems or pain occur during pregnancy.

## The **gynecologist**

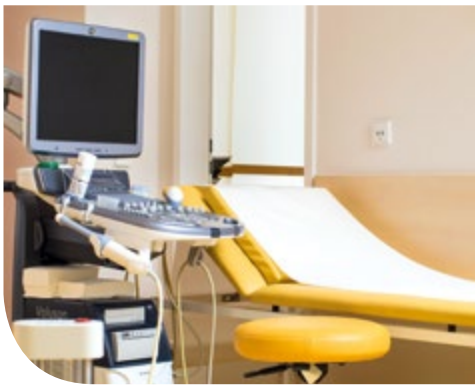
Many women experience their visits to the gynecologist as unpleasant. That is understandable. Before making an appointment, determine whether you would prefer to see a male or a female gynecologist.

Perhaps a friend or relative can recommend a doctor or counseling service to you. It is also advisable to write down all the questions you want to pose to the gynecologist before going in. This helps to prevent your forgetting something once in the examination room.

If you are taking hormonal contraceptives or using an IUD, you should schedule regular control visits to your gynecologist. You will also need a prescription for hormonal contraceptives. In Germany, beginning at the age of 20 years, every woman has the right to a yearly examination for the early detection of cervical cancer.

**You should see your gynecologist as soon as possible at the following signs or symptoms:**

- Itching, extremely strong or smelly discharge from the vagina
- Bleeding between periods
- Problems urinating or defecating
- Abdominal pains
- If pain occurs regularly during or after intercourse
- If bleeding occurs after intercourse
- If menstrual bleeding goes on for longer than 10 days
- If the menstrual cycle is repeatedly too short (less than 25 days)
- If menstrual bleeding is particularly heavy
- If one's period is more than 30 days overdue
- If no signs of puberty and menstrual activity have occurred by age 15
- If headaches and vision disorders occur while taking the contraceptive pill



**Prepare yourself for the visit. The gynecologist will first ask some questions:**

- When did you get your first period?
- How regular is your period?
- How long does your period last?
- How heavy is the bleeding?
- When was your last period?
- Are you sexually active?
- What contraceptives are you using?
- Do you have (or have you had) any serious diseases or health problems? Do any such problems run in your family?
- Do you have any physical or other impairments?
- Are you presently pregnant?
- Have you ever had a child or a miscarriage before?

Then the gynecologist decides together with you whether a vaginal examination is actually necessary. That may not need to be the case, especially for women who have not yet engaged in intercourse.

The examination itself generally does not last very long and is not painful. Wearing a longshirt or a long sweater while on the gynecologist's chair may give you a better feeling of being protected and safe. Of course, you can always ask your gynecologist to explain the individual steps before carrying them out.

The gynecologist inserts a so-called speculum into the vagina to look at the state of the vagina and the cervix. In girls and women who have not yet had intercourse there is a certain chance the hymen will be broken. If it is important to you that the hymen remain intact, talk to your gynecologist about this in advance. Following the examination with the speculum, the gynecologist uses both hands to palpate the uterus, the Fallopian tubes and the ovaries by inserting two fingers in the woman's vagina and placing the other hand on the woman's abdomen.

In addition, the gynecologist may carry out several early-detection examinations, which the healthcare insurance company pays for:

- For women 20 years and older, a so-called Pap smear of the cervix to determine whether any cells display abnormalities. This examination also includes palpating the lower abdomen.
- Up to the age of 25 years, a yearly urine test for a chlamydia infection. (➔ **www.familienplanung.de/chlamydien**)
- From the age of 30 years, an examination of the woman's breasts and armpits to detect any abnormal changes.

All women and girls, however, have the right to speak up and ask any questions they may have. Make your needs known! It's your body!

## The **urologist**

The idea of having a strange person examine and perhaps even touch your genitals may repel some men. It is always advantageous if the doctor acts pleasantly and is sensitive to the feelings of the patient. You may have to try out different doctors before settling on one. Ask friends or trusted persons to advise you.

**In the following cases, too, a visit to the urologist is suggested:**

- When you have questions concerning sexuality or birth control
- When problems with erections occur
- If the foreskin cannot be drawn back or it is painful to do so
- If redness, spots or other changes occur to the tip of the penis (glans)
- If there are changes in the size of the testicles
- If a hardness can be felt in the testicles
- If you notice an unusual thickening or swelling in the scrotum
- When pain occurs in the epididymis
- When pain occurs during defecation
- If you discover blood on the toilet paper

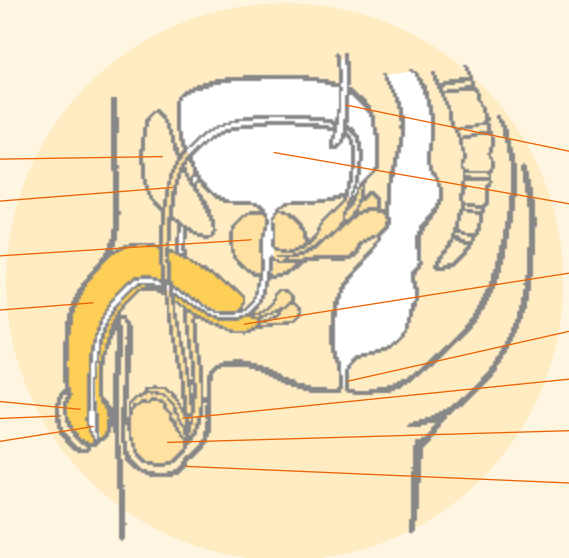
**If you have the following symptoms, you should make an appointment with a urologist:**

- Pain when urinating
- A cloudy or purulent discharge from the penis
- Blood in the urine
- Blood over a few days in your semen
- Sudden, sharp pains in the scrotum which fail to go away on their own or worsen

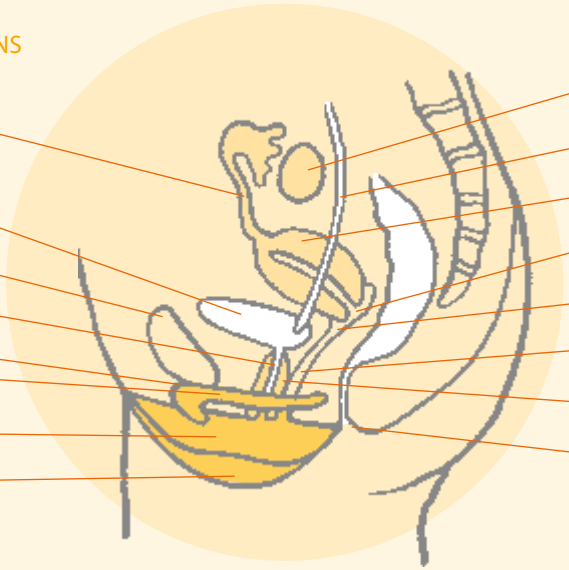
In preparation for your visit to the doctor, it is often helpful to write down any questions or problems you may have, which makes it easier to remember them when you're in the office. What the doctor actually does depends on the symptoms reported. Normally, the urologist examines the testicles and the penis and determines whether, for example, the testicles are swollen. If you are experiencing pain in the testicles, the doctor may do an ultrasound, whereas if you have a discharge from the penis, a smear test is likely necessary.

From the age of 45 on all men in Germany have the right to an early-detection examination of the genitals for signs of cancer. For this the doctor examines the prostate and the external sexual organs. This yearly examination is paid for by the patient's healthcare insurance company.
**→ www.maennergesundheitsportal.de/themen/frueherkennung/krebsfrueherkennung**

## MALE REPRODUCTIVE ORGANS

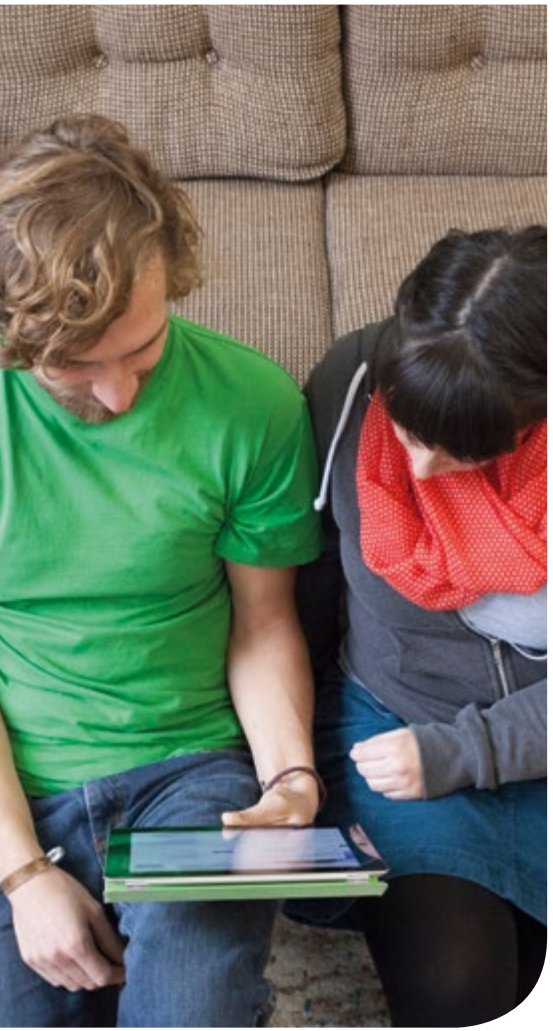



## FEMALE REPRODUCTIVE ORGANS



# The various **contraceptive methods**

In the following you will find a detailed description of the various common methods of birth control. You will learn about their respective modes of action and application as well as their benefits and disadvantages, safety and costs.



**The contraceptive methods can be divided into different groups:**

- The hormonal contraceptives comprise those methods that use a combination of different hormones, such as the combination pill, the vaginal ring and the contraceptive patch. But it also includes all contraceptives containing gestagen, such as the minipill, the hormonal implant and the three-month depot injection.

- The barrier methods are mechanical methods that physically block conception by preventing sperm cells from entering the woman's uterus. The most common barrier method is the male condom. Other barrier methods include the female condom, the diaphragm and the so-called FemCap™.

- The copper coil spiral (aka IUD) and the cooper chain are inserted into the woman's uterus and offer long-term protection. The hormone IUD releases gestagen but, like the normal copper coil IUD, works primarily locally in the uterus and is thus described along with the IUD.

- Methods of natural family planning (NFP) are based on an exact observation of the physical processes that go on in woman's body, allowing determination of the fertile and the infertile days.

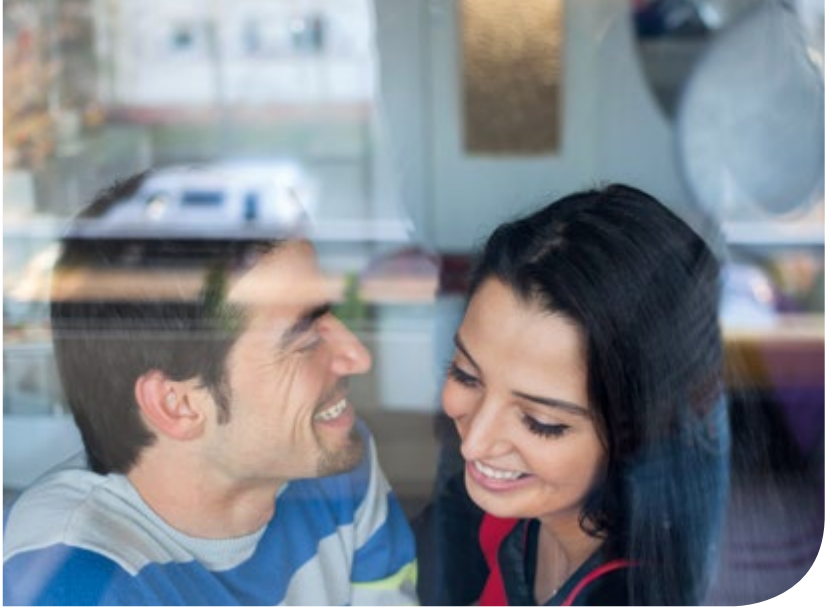
- Sterilization leads to permanent infertility and can be carried out on both males and females.

- The unsafe methods include coitus interruptus and the calculation of fertile times of the menstrual cycle.

These groups provide a general orientation and enable an overview of the comparable contraceptives. For example, what is true for the combination pill is partially true also for the vaginal ring, and the description of the copper coil IUD closely resembles that of the copper chain. Nevertheless, each method does have its own peculiarities.

If two types of contraception are similar and, for example, have the same side effects, we will point this out. We also mention any features in detail.

Yet such information cannot replace a professional consultation, though it can help you to gain a general overview and make preliminary choices.



## Safety

The various types of available contraceptives differ in the extent of protection they offer against pregnancy. We note this for each type ("failure rate"). The percentage given shows how many women nevertheless become pregnant in the first year of their application.

**Two pieces of information are given:**

- The extent of protection when the method is perfectly applied, that is, conscientiously and without error. This shows how safe a particular contraceptive is under ideal conditions.
- The extent of protection under typical conditions, which in turn reveals a more realistic value in everyday use.

We also explain the reasons why some contraceptives fail so that you can better judge the quotients supplied.

More information on how these numbers were obtained may be found at the beginning of this brochure (→ p. 2).

# Methods with a **combination of hormones**

This group includes most of the contraceptive pills, the vaginal ring and the contraceptive patch, all of which contain a combination of estrogen and gestagen.

## The **combination pill** ("the pill")

The contraceptive pill is still considered to be very safe, and it is still the most widely used contraceptive, especially among girls and young women.

Many different types are available which differ in part in the hormonal dose, in the combination of hormones and in the way they must be taken. The estrogen contained in these pills is generally ethinyl estradiol, though others contain estradiol, which is very similar to the estrogen produced by the female body. Some ten different types of gestagen may be included in the combination pill. Although modern pills contain very small amounts of hormones, the pill is and remains a drug that has its own special side effects.

› EFFECTS: The hormones included in the combination pill have three different effects:

- They inhibit the maturation of an egg and thus ovulation. The whole menstrual cycle thus consists of infertile days, which excludes fertilization.
- They change the consistency of mucous in the cervical canal so that the sperm cells cannot enter the uterus.
- They prevent the proper build-up of the lining of the uterus, so that the fertilized egg cannot lodge in the uterus.

There are one-phase and multiple-phase combination pills available. The so-called **one-phase pills** have the same amount of estrogen and gestagen in every pill. Many packages consist of 21 pills with hormones, and on the remaining 7 days no pill is taken.

Other packages contain, besides the 21 (or 24) pills with hormones, 7 (or 4) differently colored pills without any hormones. With the latter type no interruption is necessary.

When the pills are taken and when they are not is thus predetermined and does not depend on when menstruation begins. In packages with 21 pills, menstruation usually starts while the pills are not being taken; in packages with 28 pills it normally commences when the last pills without hormones are being taken.

The pill remains an excellent means of birth control even in the phase when the pills are not being taken.

The **multiple-phase pill** contain varying amounts of hormones, as may be seen in the different-colored pills in the package. They must be taken in exactly the prescribed order. It is presently unknown whether the multiple-phase pills have any advantages over the one-phase pills.

› USE: if you are taking the pill for the very first time, you usually begin on the first day of your period, which guarantees immediate protection against pregnancy. If you begin on the second to fifth day of your period, you must be sure to use an additional contraceptive method (for example, a condom) on the following 7 days. If pregnancy can safely be excluded, you can begin on any other day of the cycle, but here too you should use an additional contraceptive during the first 7 days.

The instructions may differ somewhat for the multiple-phase pills, but you are nevertheless protected even during the time in which no pills are being taken.

Note that different rules apply when switching from one contraceptive method to another or when beginning with contraception following a birth or a miscarriage. In such cases, please consult with your doctor.

If you forget to take a pill or begin a new package too late, it is sufficient to take the pill within the next 12 hours.

This eliminates any danger of getting pregnant. All following pills are then taken at the normal time. If more than 12 hours have expired (for pills with the ingredient norgestimate up to 24 hours; see the package leaflet), take the pill as quickly as possible, which may mean taking two pills on one day.

There is a short internet test you can take if you want to know whether you need to use additional contraceptives or perhaps the "morning-after pill."
**➔ www.familienplanung.de/verhuetung/verhuetungspannen**.

It is generally not recommended today to stop taking the pill to check whether the cycle is functioning normally.

A woman can usually get pregnant quickly even after taking the pill for long periods.

› SAFETY: The failure rate under ideal conditions lies at about 0.3-1%, under typical conditions at 2.5-9%. If the pills are always taken correctly, this method is as safe as the copper spiral (IUD), the hormone implant or sterilization.

But everyday practice can be inconsistent. The main reason lies in the fact that daily stress prevents some women from obtaining a new prescription so that the next round of pills is not started on time. In some cases, this may of course result in an unwanted pregnancy, whereas forgetting a pill now and then generally does not have such grave consequences.

If you vomit within 3 hours of having taken a pill or have severe diarrhea, the pill may not have the desired effect. Further, the intake of certain other medicines may limit the contraceptive effect. Examples are drugs taken for epilepsy, against virus infections as well as St. John's wort. Ask your doctor or gynecologist in such cases about how proper protection can still be ensured. This is also true when embarking on a vacation that produces jetlag, where the times for taking the pill may have to adapted.

**+ BENEFITS:** The contraceptive pill offers very good protection against pregnancy and is relatively easy to use. The woman's periods are generally weaker and shorter, and menstrual cramps decline overall. Many girls and women experience a better complexion. Some gestagens are especially effective against severe acne. Pills that contain dienogest may be even prescribed for that very purpose, when other methods prove fruitless.

**– DISADVANTAGES:** Some women find it difficult to remember to take their daily pill or neglect obtaining a new prescription in due time. If such errors do occur, they should be aware of how to react in order to prevent an unwanted pregnancy.

Although the modern pills contain considerably fewer hormones than earlier compounds and most women today tolerate them well, they can still cause side effects and health problems.

Most **side effects** are unpleasant but not dangerous. For example, some women suffer from nausea and vertigo, headaches, mood swings, depressive states, reduced libido or tension/tenderness in the breasts. But these are rare.

When such symptoms do occur, it may be advantageous to try switching to another compound. In the initial time after starting a combination pill, spotting is a common complaint, but it usually disappears after the first 2 or 3 months. If bleeding does continue, try another compound. Many women worry about gaining weight when taking the pill, but in fact this is a rather rare side effect. In this point the various different combinations do not differ.

**More serious health problems** occur only very rarely. The pill does slightly increase the risk of thrombosis, heart attack, stroke and certain types of cancer (➔ pp. 29–30).

For this reason, it is important to discuss any pre-existing conditions or risk factors with your physician. Taking the pill with some conditions may lead to greater risks. Here, too, you should consult with your physician.

› COSTS: A month's supply of pills costs between EUR 12 and EUR 23, depending on the product. Packages with a 3- or 6-month supply are cheaper.

## Health risks involved with hormonal contraceptives

The (mini)pill, the vaginal ring, the contraceptive patch, the hormone implant and the 3-month depot injection are all hormonal contraceptives. They are generally very safe. Severe health problems occur only on an individual basis, with the combination methods more than with the purely gestagen methods. Hormone IUDs in turn do not carry these risks; for possible risks, see the section below on "hormone IUDs."

### › COMBINATION HORMONAL METHODS

The combination pill ("the pill"), the vaginal ring and the contraceptive patch carry a slightly higher risk of suffering thrombosis (formation of a blood clot in a blood vessel), heart attack or stroke. Most women do not have to worry about this, though if they have certain pre-existing conditions or risk factors, they should, together with their doctors, weigh the benefits and possible negative effects of this means of contraception. Women who smoke and are older than 35 are generally dissuaded from taking combination hormonal contraceptives.

**Important risk factors for thrombosis are as follows:**

- Smoking
- Severe overweight
- Recent childbirth, since the hormonal changes that occur during pregnancy increase the overall risk of thrombosis. It takes a while for the female body to adapt following childbirth.
- Decreased mobility, for example, due to operations, extended illnesses or physical impairments
- Higher age, in particular women over 35 years of age
- A history of thrombosis among direct relatives (parents, siblings) in their younger years
- Past episodes of thrombosis
- A congenital increase in vulnerability for thrombosis

The risk of developing thrombosis is especially high during the first year of using hormonal contraceptives and remains slightly higher in the first few months after discontinuation. How high the actual danger of developing blood clots is depends on the amount of estrogen and the type of gestagen contained in the respective contraceptive pill. Compounds containing levonorgestrel, norgestimate and norethisterone have a lower risk than those containing desogestrel, gestodene, drospirenone and cyproterone acetate.

Generally speaking, combination hormone pills have a low risk of thrombosis: depending on the compound between 5 and 12 per 10,000 women per year. In comparison, among women who do not use hormonal contraceptives and do not become pregnant, about 2 in 10,000 suffer a thrombosis each year. Once these contraceptives have been discontinued, the risk of thrombosis becomes normal within a few weeks.

For more information on the risk of thrombosis, see
→ **www.familienplanung.de/pille**.

**Important risk factors for a heart attack or a stroke are as follows:**

- High blood pressure
- Smoking
- Higher age, in particular women over 35 years of age
- Severe overweight
- Elevated blood lipid levels
- Migraine headaches with aura (only for stroke)

The risk of suffering a heart attack or a stroke also decreases within weeks of discontinuing a hormonal contraceptive.

**Link to cancer:**

The combination pills have very diverse links to cancer. The risk for cancer of the ovaries and the lining of the uterus is actually reduced, whereas the risk of getting breast cancer and cervical cancer is slightly increased when the combination pill is used for longer than 5 years. Following discontinuation, however, the risk declines within a few years.

**Mood changes and depression:**

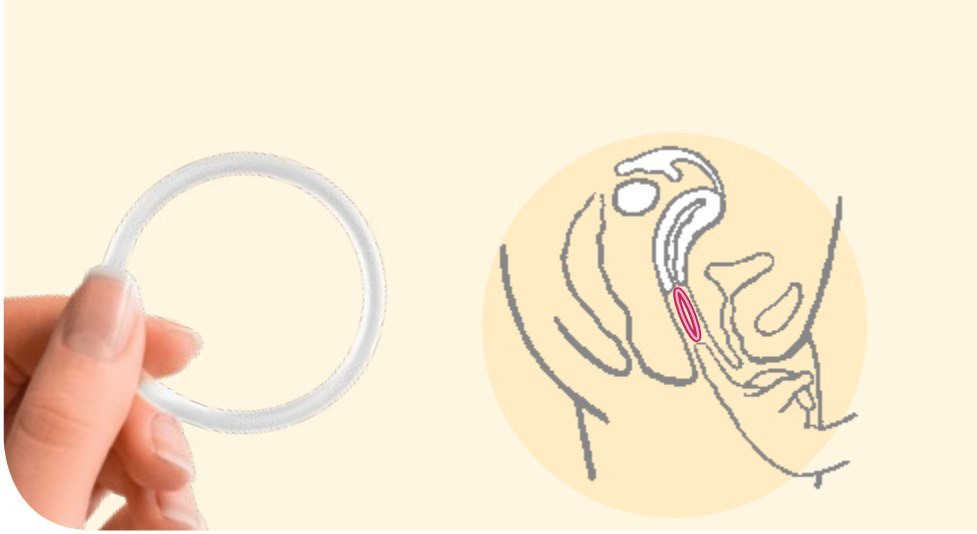
Many women experience periodic bouts of mood changes. Such mood swings, including depression, appear to occur more often in women using combination hormonal pills or gestagen. If you notice such depressive states – even shortly after commencing hormonal contraception – please consult your physician to clarify whether you should switch to another type of pill or switch to another type of contraception altogether. You should also clarify whether you are suffering from a (clinical) depression that is in need of professional treatment.

## GESTAGEN METHODS

The health risks involved with the minipill and the hormone implant are considerably lower than with the combination hormone methods. Overall, they increase the risk of thrombosis, heart attack, stroke and cancer only slightly. For that reason, they can be useful especially when the combination methods prove too risky.

But because the gestagen compounds are used overall less than the other methods, the existing data are less reliable. Whether a gestagen method is preferable in a particular case must be determined together with your physician.

## Vaginal ring



The vaginal ring is a plastic ring containing both estrogen and gestagen. It has the same effect as the contraceptive pill (➔ **p. 26**), although here the hormones are not ingested and absorbed through the stomach and the intestine, but through the vagina.

› EFFECTS: The vaginal ring prevents ovulation and changes the consistency of the mucous at the cervix and the development of the uterine lining. This makes it a reliable means of contraception.

› USE: The woman inserts the flexible ring herself into her vagina between the first and the fifth day of her menstrual cycle. If inserted on the first day of her period, the ring protects immediately against an unwanted pregnancy. If the ring is inserted between the second and the fifth day of the menstrual cycle, however, then an additional method of contraception, such as a condom, should be employed during the following 7 days.

If an existing pregnancy can be safely excluded, the ring can be inserted at any other point in time, though use of an additional contraceptive is then necessary over the next 7 days.

The procedure is slightly different when switching from another contraceptive method or when inserting the vaginal ring following a birth or a miscarriage. In these cases, please consult with your doctor.

To insert the vaginal ring, press the soft and flexible ring together and insert it into the vagina much as you would a tampon, pushing it in as far as possible. The effectiveness of the ring does not depend on where it is positioned in the vagina. The main thing is that it doesn't prove to be a bother.

The ring stays in place for the next 3 weeks, when the woman then removes it herself by inserting a finger into the vagina, hooking it onto the ring and pulling it out.

Dispose of the used ring in household waste and not in the toilet. After a week's time a new ring is inserted.

Generally, the woman will have her period when the ring is no longer present in the vagina; protection against an unwanted pregnancy continues to be present.

Should the ring at any time slip out of the vagina, for example, during intercourse or when removing a tampon, it can be re-

inserted within the next 3 hours without any negative effect. The safety is not affected. Wash off the ring with lukewarm water before re-inserting, but do not use any soap or disinfectants.

When stored at room temperatures not exceeding 30 °C the vaginal ring has a shelf-life of about 4 months following purchase in a pharmacy

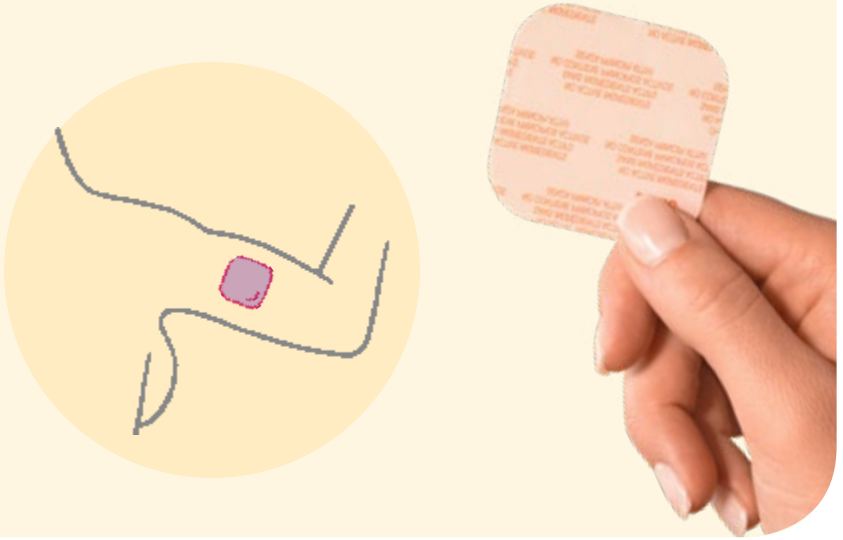
› SAFETY: Under ideal conditions the failure rate of the vaginal ring is 0.3–1%, under typical conditions 2.4–9%. Like the pill, it offers a high level of contraceptive safety if used properly. The main reason for failure under typical conditions lies in interruptions that occur because the woman fails to get a new prescription in due time. Like the pill, the ingestion of certain drugs can also reduce the contraceptive effect (➔ p. 28).

BENEFITS: The vaginal ring is easy to use. Women can insert it and remove it themselves and thus need not worry about contraception on a daily basis. This is of great value especially for women who have trouble sticking to an exact schedule. Also, unlike the pill, stomach ailments of all kinds as well as vomiting and diarrhea do not reduce the contraceptive efficacy of the vaginal ring. Further, eating disorders, in particular bulimia, or chronic intestinal illnesses do not negatively influence the reliable absorption of the active ingredient in the body. The vaginal ring has all the well-known advantages of the pill: a high level of contraceptive safety, reduction of period bleeding, fewer pains and discomfort, and improvement in complexion (➔ p. 28).

DISADVANTAGES: Some women consider it unpleasant to have to touch their own vagina, in which case the vaginal ring is not the best method. Some (physical) impairments may make it difficult to impossible to insert the vaginal ring correctly.

Since the combination pill and the vaginal ring work similarly, they may also have the same side effects and health problems: nausea, vertigo, headaches, mood swings, depressive states, reduced libido, tension/tenderness in the breasts as well as bleeding may occur in the first months of use. In addition, the risk of thrombosis, heart attack, stroke and certain cancers (➔ pp. 29–30) rises somewhat. Yet, overall only few women are affected by these health problems. The vaginal ring may cause an increase in discharge from the vagina or vaginitis (inflammation of the vagina). Before using the vaginal ring for the first time, consult with your physician whether any medical reasons would prevent your using it. Women who cannot take the pill for medical reasons should also not use the vaginal ring (➔ p. 29).

› COSTS: A 3-month pack of vaginal rings costs about EUR 35–48.



## Contraceptive patch

The contraceptive patch contains a combination of estrogen and gestagen. It works like the combination pill, except that the hormones are absorbed through the skin and not through the stomach and intestines.

› EFFECTS: The hormones contained in the patch prevent ovulation as well as change the consistency of the cervical mucous and the lining of the uterus (➔ p. 26). Thus, the patch works exactly like the pill.

› USE: The patch is applied to the outside skin of the upper arms, the buttocks, stomach or upper torso, except for the breasts. The skin at this spot should be healthy, clean and dry and without any cremes or lotions. It is best applied immediately after showering. It is pressed firmly against the skin. Especially in the first few days it is important to check daily that it in fact is still firmly in place.

The patch is normally applied between the first and the fifth day of the menstrual cycle. If it is applied on the very first day of a woman's period, it offers immediate protection; if it is applied on the second to fifth day of the menstrual cycle, then an additional contraceptive method must be used on the following 7 days, for example, a condom. If pregnancy can be safely excluded, it can be applied on any other day of the cycle, but here too you should use an additional contraceptive on the first 7 days. Special rules apply when switching from one (hormonal) contraceptive to another or following a pregnancy. Discuss this with your physician.

The patch is removed after 1 week's time and a new one applied to another spot. After 3 weeks of patches there follows 1 week without a patch.

This pause should last no longer than 7 days, as otherwise the contraceptive effect may not be guaranteed.

If you forget to change the patch on the right day, apply a new one as soon as possible. If this occurs less than 2 days late, protection still exists; if more than 2 days have passed, then you should use an additional contraceptive on the first 7 days, for example, a condom.

› SAFETY: Under ideal conditions the failure rate lies at 0.3–1%, under typical conditions 2.4–9%. Like the pill, when correctly used, the contraceptive patch is a very safe method of contraception. The main problem in everyday use lies in interruptions that occur because a new prescription was not obtained in due time.

Normally, the patch holds up well in water, in the sauna or during sport activities. However, should it become loose, in part or in whole, it should not be reapplied unless it sticks very firmly. Otherwise, use a new patch. Contraceptive efficacy is present for up to 24 hours after a patch has become loose.

If the patch has been loose or completely torn off for longer than a day (i.e., 24 hours or more), then it no longer provides protection against an unwanted pregnancy.

In such cases, apply a new patch and use an additional contraceptive method for the next 7 days. Note, too, that certain prescription drugs can limit the efficacy (➔ p. 28).

BENEFITS: The patch is convenient and easy to use. It is considered one of safest methods of contraception. Problems such as vomiting, diarrhea, eating disorders or chronic intestinal inflammation do not negatively affect the efficacy. Also, the patch has the same advantages of the combination pill: Periods are weaker, menstrual problems decline, complexion problems improve.

DISADVANTAGES: Some women are bothered by the fact that the patch is visible. Also, there may be some skin irritation at the edges of the patch. And in some women the patch just fails to stay on. The most common side effects correspond to those of the combination pill: nausea, vertigo, headaches, mood swings, depressive states, reduced libido and tension/tenderness in the breasts. Bleeding may occur especially at the beginning. The contraceptive patch also slightly increases the risk of thrombosis, heart attack, stroke and certain cancers (➔ pp. 29–30). Your doctor or gynecologist can determine whether there are any health reasons that would argue against your using the patch.

› COSTS: A 3-month package of contraceptive patches costs about EUR 40.

# Contraceptives **containing gestagen**

Contraceptives containing gestagen include the minipill, the hormone implant and the 3-month depot injection. The hormone IUD also contains some gestagen, but in many regards it is more like the normal copper IUD and is thus described in that section.

## Minipill

There are two different types of minipill that differ in their composition and their dosage. The higher-dose minipill contains desogestrel, the lower-dose minipill contains levonorgestrel. The latter must always be taken exactly on time.

› EFFECTS: The minipill with desogestrel inhibits ovulation and prevents the proper buildup of the lining of the uterus. It also changes the consistency of the cervical mucous such that the sperm cells cannot get through. In this respect it strongly resembles the combination pill.

The minipill containing levonorgestrel leads to an insufficient buildup of the lining of the uterus and changes to the cervical mucous. However, it does not reliably prevent ovulation.

› USE: The minipill must be taken continuously, without pause. If a woman commences taking the minipill on the first day of her menstrual cycle (i.e., on the first day of her period), then she is protected from the very beginning. However, if she begins on the second to fifth day of the menstrual cycle, then she should use an additional contraceptive over the next 7 days, for example, a condom.

If pregnancy can be safely excluded, she can start taking the minipill on any other day of her cycle but must be sure to use an additional means of contraception in the first 7 days. When one package is empty, the next package is begun without a pause.

Special rules apply when switching from one type of contraceptive to another, or when starting to take a minipill following a birth or miscarriage. Please consult here with your doctor.

When taking the minipill containing levonorgestrel, women must take great care to take it at the same time every day. A delay by even 3 hours can result in a reduction in the contraceptive efficacy. The minipill containing desogestrel, on the other hand, can be taken up to 12 hours after the foreseen time without adversely affecting the contraceptive efficacy. However, if more than 12 hours have elapsed, another form of contraception must be employed during the next 7 days.

› SAFETY: Under ideal conditions, the minipill containing desogestrel has a failure rate of 0.3–1%, under typical conditions of 2.4–9%, making it exactly as safe as the combination pill. The minipill containing levonorgestrel has a failure rate under ideal conditions of about 1.5%, under typical conditions also of 2.4–9%. Thus, when used properly, the minipill has a very high level of safety.

The most common reason for unwanted pregnancy in everyday use lies in the minipill not being taken because a new prescription was not obtained on time.

Vomiting or diarrhea occurring within 3 hours of having taken a minipill may negatively affect the contraceptive ef-

fectiveness of the minipill. Also, certain drugs can reduce its efficacy (➔ p. 28).

BENEFITS: The minipill carries overall fewer health risks and side effects than the combination pill and is thus especially well-suited for women who cannot take the combination pill for health reasons. Some women also tolerate the minipill better than the combination pill.

Women who are still nursing their babies and yet want to use hormonal contraceptives can take the minipill. The gestagen contained in the minipill has no negative effects on nursing or on the health of the baby.

The combination pill, on the other hand, is not suited for nursing mothers since the estrogen reduces the amount of milk and increases the danger that the baby gets too many hormones through the mother's milk (➔ p. 70). The minipill also reduces the severity of a woman's period and eases menstrual discomforts.

DISADVANTAGES: Some women find it difficult to remember to take the pill daily or to get a new prescription in due time. The minipill containing levonorgestrel demands great diligence since a delay of even 3 hours can reduce the contraceptive protection.

Women who take the minipill tend to have irregular periods: About half of them have only weak periods or no periods at all, whereas about a third complain about repeated or extended periods. The minipill containing desogestrel causes more such irregular periods than that containing levonorgestrel.

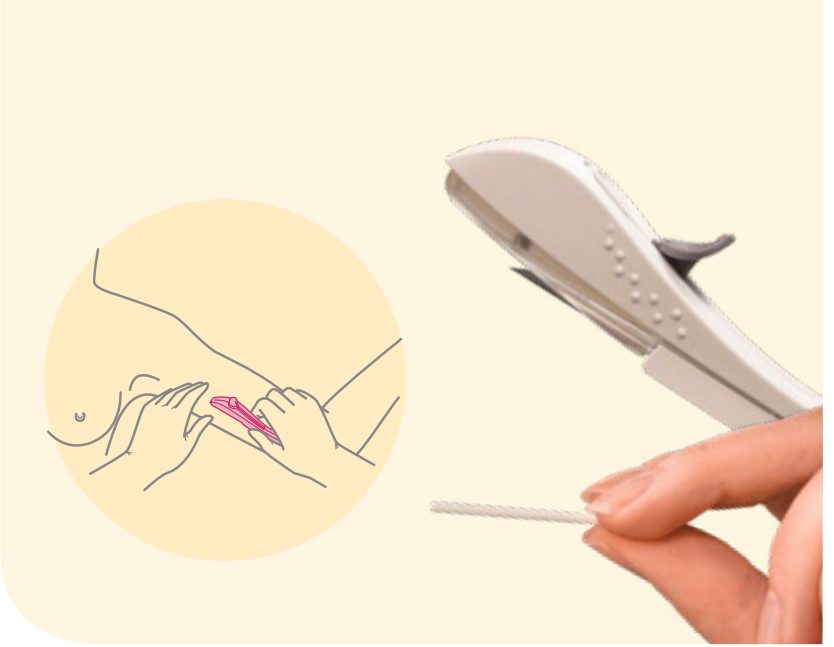
Both compounds do not affect skin complexion as much as the combination pill does – and in rare cases may even cause acne. Other side effects, such as headaches, mood swings, depressive states, reduced libido and tension/tenderness in the breasts, occur less than with the combination pill. The health risks associated with taking hormonal contraceptives (➔ pp. 29–30) are also less than with the combination pill.

Nevertheless, it is important that you consult with your doctor before beginning to take the minipill

› COSTS: A 3-month package of the minipill with levonorgestrel costs about EUR 30, whereas the same 3-month package of the minipill with desogestrel costs between EUR 20 and EUR 37.

## Hormone implant

The hormone implant is a soft plastic rod that contains a hormone like that used in the minipill containing desogestrel. It is implanted under the skin, allowing the active ingredient to be released incrementally into the body.



› EFFECTS: The hormone implant has three effects: It inhibits ovulation, changes the consistency of the cervical mucous and prevents the proper build-up of the uterus lining.

The hormone implant offers reliable protection from an unwanted pregnancy for up to 3 years.

› USE: With the help of an applicator, specially trained gynecologists implant the rod under the skin of the inside upper arm between the first and the fifth day of a woman's menstrual cycle. Contraceptive protection begins immediately after insertion. If pregnancy can be safely excluded, it can also be inserted at any other time, though an additional means of contraception must then be used in the first 7 days.

The implant generally remains in position for the next 3 years and is then replaced. Of course, it may be removed at an earlier point in time if desired. Once it has been removed, the woman can get pregnant immediately.

In order to remove or exchange the rod, the doctor first makes a small incision in the skin (a few millimeters) using local anesthesia and pulls the rod out and inserts the new one. The incision is closed with a butterfly bandage.

› SAFETY: Under both ideal and typical conditions the failure rate is 0–0.5%. Application errors can be excluded with the hormone implant, making it – even under typical conditions – a very safe contraceptive.

However, certain drugs can negatively affect the contraceptive effect, similar to the situation with the pill (➔ p. 28).

BENEFITS: The hormone implant is a very safe and convenient way to practice contraception. It is also suitable for women who have trouble regularly taking their pills. Further, it offers the same advantages as the minipill: Periods are generally less severe, and menstrual problems disappear. The implant can also be used while nursing.

DISADVANTAGES: The hormone implant has more or less the same side effects found with the minipill: In rare cases there are headaches, mood

swings, depressive states, reduced libido, tension/tenderness in the breasts and acne. The associated health problems (➔ **pp. 29–30**) are less severe than with the combination pill. Nevertheless, it is important that a woman first consult with her doctor before being prescribed the hormone implant as that is the time to clear up any questions about risks and restrictions.

Irregular bleeding is common. One in five women no longer have periods at all, whereas one in four women experience frequent or heavy bleeding. Thus, 12 of 100 women using the hormone implant end up having it removed prematurely. Sometimes the rod is inserted too deeply under the skin. In very rare cases, it may "migrate" and move to other parts of the body, which may make an operation necessary to remove it.

costs about EUR 300, which includes the costs of insertion. The cost of removing it lies at about EUR 40.

## 3-month depot

The 3-month depot/injection should be used only by women who do not tolerate other means of contraception

› EFFECTS: 3-month depot contains a gestagen delivered in the form of an injection. It prevents ovulation and changes the consistency of the cervical mucous so that the sperm cells cannot pass through. In addition, it prevents the lining of the uterus from properly building up so that the egg cannot lodge in the uterus.

› USE: The 3-month depot must be injected by a physician or a medical professional. Some compounds are injected into the upper arm or the buttocks, others are injected under the skin of the abdomen or thigh. When this contraceptive is being used for the first time, it is generally injected between the first and the fifth day of the menstrual cycle. It offers immediate and high contraceptive safety. If a pregnancy can be safely excluded, the injection can also be given on any other day of the cycle, but the woman must then use an additional contraceptive over the next 7 days.

The next injection is given after 3 months' time, at the latest after 14 weeks. This means that women who are using the 3-month depot must regularly visit their doctor's office.

› SAFETY: Under ideal conditions the failure rate is 0.2–0.6%, under typical conditions 6–7%. If the injection is given in due time, this method has a very high level of contraceptive safety. But realistically that is not always the case, so that the failure rate under typical conditions does lie higher.

The use of some drugs may limit the contraceptive effect of the 3-month depot.

Following the last injection, it can take up to a year for the menstrual cycle to become normal again and for the woman to get pregnant. Thus, a woman who feels unable to commit to such a long time should avoid this method.

› COSTS: The 3-month depot itself costs about EUR 30, and the cost of having it injected runs about EUR 15.

**+** BENEFITS: Women who prefer not having to think about contraception on a daily basis are well served by the 3-month depot with its high safety. In many cases, the woman's period stops altogether, which some women consider positive. The 3-month depot may also be the best choice for women who have existing preconditions (such as sickle cell anemia) or who are taking certain drugs on a regular basis and thus do not tolerate other hormonal contraceptives.

**–** DISADVANTAGES: The 3-month depot has more side effects than other compounds containing gestagen, for example, headaches, mood swings, depressive states or acne. Periods tend to be irregular, and bleeding may occur during the first weeks. Later, periods generally stop completely. Weight gain is greater with the 3-month depot than with other hormonal contraceptives, especially when the woman is already overweight. The injection works for at least 3 months, so if side effects do occur, it is not possible to simply stop the whole process. Using the 3-month depot over a longer period of time carries with it the danger of loss of bone density. For this reason, young women, whose bone structures are still being developed, should not use the 3-month depot for longer than 2 years.

## Hormonal contraception in men

Presently, it is not expected that a hormonal means of contraception for the man will reach the market any time soon. Recently, research has instead concentrated on nonhormonal substances that reduce the fertility of the sperm. But to date no such substance has proved commercially viable. For more information, see **→ www.familienplanung.de/pille-fuer-den-Mann.**

# Barrier **methods**

The condom is an important and the most-used barrier method. Like the female condom, it prevents the sperm cells from reaching the egg. Other barrier methods are the diaphragm and the FemCap™.

## Condom

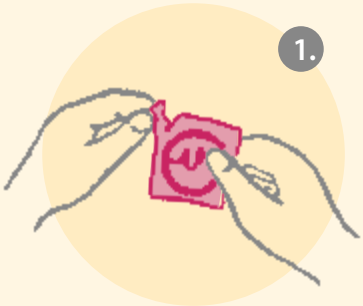
Besides the female condom, the condom is the only means of contraception that protects both against HIV and other STDs and against unwanted pregnancy. It is thus suitable both for people in steady partnerships and for those who are commencing sexual contact with new partners or have multiple partners.

› EFFECTS: The condom prevents the semen from entering the woman's vagina, rendering fertilization virtually impossible, if used properly. Because the man's penis and his semen do not have any direct contact with the woman's vagina and her vaginal fluids, it also reduces the risk of infection with HIV and other STDs.

› USE: Using a condom takes some practice but is overall easy enough to do. The condom is rolled over the erect penis before the first penetration in the woman's vagina. First, however, the air must be pressed out of the tip of the condom, the so-called reservoir, making space for the semen following ejaculation. Couples can make this act part of their foreplay so that it doesn't interrupt sex.

## The proper use of a condom

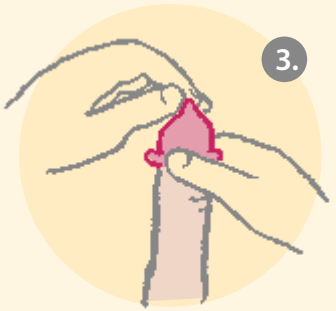
Be sure to purchase the right-sized condom. Condoms that are too small can break or burst; condoms that are too large can easily slip off during sex and end up in the vagina or rectum.




Open the package carefully. Long fingernails, scissors and other sharp or pointed instruments may damage the condom.

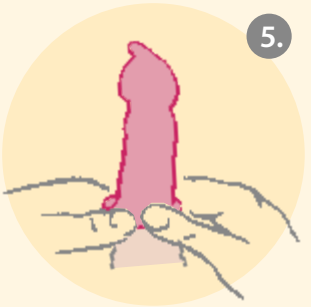

Apply the condom only when the penis is sufficiently erect. Pull the foreskin back if you have not been circumcised.

Unroll the condom over the erect penis before inserting it into the vagina or rectum for the first time. This is necessary because some seminal fluid may already be present even before ejaculation has occurred.




Press the air out of the tip of the condom with two fingers. Place the condom on the erect penis such that the rolled-up part lies on the outside. If you put the condom on incorrectly (i.e., with the rolled-up part on the inside), do not turn it over and use it again, as it may have already had contact with sperm cells or germs. Use a new condom in such cases.


Now roll the condom over the penis all the way down to the base of the penis. Do not pull or jerk it down. Be sure to hold onto the condom at the tip. It should roll down easily. If that is not the case, it may not be the right form or size for your penis.




After rolling the condom down over the penis, you can apply a lubricant. Caution! Be sure not to use lubricants containing any fats or oils as they may damage condoms made from latex. Use only water-based lubricants.

Following ejaculation, pull the penis from the vagina or rectum before it goes limp. When doing this, hold onto the condom at the base of the penis so that it can't inadvertently slip off.

After removing the condom, you may have some semen on your fingers or the penis itself. **Thus, in whatever follows, be sure that semen does not manage to get into the vagina.**

› SAFETY: Under ideal conditions the failure rate is about 2%, under typical conditions 6–18%. The most common reason for failure and unplanned pregnancy is not consequently using a condom every time. But contraceptive safety also depends on proper application.

For this reason, it is important to practice before first using a condom under everyday conditions. But if you adhere to certain important rules, mistakes can be easily excluded.

Should an accident occur, for example, should the condom slip off or tear, the woman should take the "morning-after pill" as soon as possible or consult with her gynecologist to determine whether use of the "morning-after IUD/copper chain" is recommended (➔ p. 76).

The morning-after pill can also be purchased directly in a pharmacy, where advice on its use is available as well.

**What else to watch out for:**

› Use high-quality condoms from well-known manufacturers with an expiration date and seal of quality as well as four-digit CE label. Only such condoms guarantee a high level of safety.
› When going on vacation, take enough high-quality condoms along with you since the ones you find elsewhere may not have the same high quality.
› Condoms do not tolerate heat very well. Don't let them lie around in the sun.
› Always check the expiration date before using. Condoms are usually good for about 4-5 years.
› Don't store condoms where they may be damaged – in pockets, purses, cosmetic bags, etc.
› Condoms are intended to be used only once. Used condoms belong in the waste basket, not in the toilet.

**+** BENEFITS: Condoms must be used only when intercourse actually takes place.

They protect both against pregnancy and sexually transmitted diseases.

With a little practice they are easy enough to use and can be purchased most everywhere – in pharmacies, drug stores, supermarkets, etc.

The condom does no damage to the body and has no side effects or after effects. In the rare case of an allergy to the latex in the condom, one can purchase condoms made of polyurethane in pharmacies and on the internet which have no known allergenic properties.

Besides sterilization, the condom is the only form of contraception in which the man can actively participate in contraceptive efforts.

**–** DISADVANTAGES: Especially when you are just getting to know someone it may be awkward to have to talk about using a condom. Women must rely on the man taking and accepting responsibility. Not everyone is comfortable with expressly demanding the use of a condom – but that is every woman's right!

It is not a token of love to fail to protect yourself against infection – it is highly risky behavior.

› COSTS: A latex condom costs between EUR 0.30 and EUR 1.20, one made of polyurethane from EUR 1 upwards.

**Important to know:**
Using the right-size condom lowers the danger of its tearing or slipping off. Particularly adolescents are not served well with the standard sizes available. Further information on the proper size and fit of condoms and how to determine the right size for your needs may be found at ➔ **www.kondometer.de** as well as on the back cover of this brochure.

**A further tip:**
An anonymous hotline is available from the BZgA (German Federal Centre for Health Education), daily from 10 am (Monday-Thursday 10 am to 10 pm, Friday through Sunday from 10 am to 6 pm) under the number (+49) 01805-555444 (EUR 0.14/minute from a landline, max. EUR 0.42 from a cell phone). It can answer all your questions concerning HIV/AIDS, STDs, safer sex and other sexual matters. This service is also available on the internet under
➔ **www.aidsberatung.de**
as well as under
➔ **www.liebesleben.de/fuer-alle/beratung.**

## **Female condom** (femidom)

Unlike the condom for males, in Germany the condom for females (also called the femidom or internal condom) is not sold in supermarkets and drug stores.

It is, however, available under various labels in pharmacies and on the internet. A prescription is not necessary.

› EFFECTS: The female condom consists of a sheath (made of latex or polyurethane) with flexible rings at each end. This condom prevents the sperm cells from reaching the egg. Because the penis and the vagina do not come directly in contact, the female condom also protects against HIV and other STDs besides preventing an unwanted pregnancy.

› USE: The ring at the closed end of the femidom is inserted deep into the vagina and holds it in place; the ring with the open end lies outside the opening to the vagina over the labia (the lips of the vulva) and thus prevents the condom from slipping into the vagina.

**Use of the female condom (femidom)**

The female condom must be inserted before the penis first enters the vagina.

Generally, it is recommended to use a water-based lubricant to enable the penis to glide down into the condom and to keep the condom from being accidently drawn out of the vagina. Before removing the condom, twist the external ring, thus closing off the condom on the outside and preventing semen from flowing back out. The female condom should be used only once and then disposed of in normal household garbage.

› SAFETY: Properly used, the female condom is almost as safe as the male condom. Under ideal conditions the failure rate lies at about 5%, under typical conditions at about 21%.

Why the failure rate is somewhat higher than that of the male condom is presently unknown.

**+** BENEFITS: The female condom is the only contraceptive method women can use to protect themselves again HIV and other STD infections. This can be important, for example, if one's partner is unwilling to use a condom. The female condom may be inserted in advance before commencing intercourse.

**−** DISADVANTAGES: Proper use demands some practice. Some people find the female condom troublesome, for example, the female condom made of polyurethane tends to crackle during intercourse. Further, there is a certain risk that the female condom will slip completely into the vagina during sex or that it will be pulled out of the vagina by the penis.

› COSTS: A package of three female condoms costs between EUR 8.50 and EUR 10.50 (+ any shipping costs). Larger package sizes are cheaper.

## Protection against sexually transmitted diseases (STDs)

Sexually transmitted diseases such as herpes, chlamydia, human papilloma virus (HPV) and syphilis are infectious diseases. Anyone can become infected with the bacteria, viruses or parasites that cause STDs. These agents are easily transferred during intercourse. An infection with an STD can occur during any number of sexual practices but differs depending on the respective STD.

"Safe sex" is one way of protecting oneself from HIV as well as lowering the risk of becoming infected with other STDs. Condoms play a major role in this, since they protect from direct contact with infectious bodily fluids, mucous membranes and (in part) skin. Vaccines are available against hepatitis A, hepatitis B and HPV. One way to prevent HIV infections is to apply the so-called pre-exposition prophylaxis (PrEP). Yet PrEP cannot completely replace safe sex since it does not in fact protect against other STDs.

Protection against infections begins with knowing how STDs are transmitted and how to recognize an infection. If you suspect infection with an STD, contact a doctor as soon as possible. If you are concerned that you may have had contact with HIV, an immediate treatment regimen with HIV drugs (so-called post-exposition prophylaxis, PEP) may be able to ward off an infection. More detailed information may be found at ➔ **www.liebesleben.de**.

## Diaphragm

The diaphragm consists of a round or oval flexible spring covered by silicone, resembling a small cap. Women can choose from two different models.

The one is available in different sizes, the other in a one-size-fits-all. The level of safety depends decisively on whether the diaphragm has the proper size, the proper fit and the proper application. For this reason, the diaphragm should first be fitted at a doctor's office, in a counseling service, a family-planning office or a women's health center. It is also of utmost importance that its use and insertion be carefully explained. Because the standard size may not fit all women, it is important to control the proper fit. Using a diaphragm takes some practice.

› EFFECTS: Together with spermicidal jelly, the diaphragm forms a barrier in front of the cervix and thus prevents the sperm cells from ever reaching the uterus. The spermicidal jelly available in Germany contains lactic acid, which lowers the pH value of the vagina and thus reduces the motility of the sperm cells.

› USE: First apply about a teaspoon full of spermicidal jelly to the inside and the inner edge of the diaphragm. Then insert the diaphragm into the vagina: The back side of the diaphragm should lie against the rear vaginal vault, and the front side is wedged in the recess behind the pubic bone. After inserting the diaphragm, test with a finger whether the cervix is completely covered by the diaphragm.

Use of the diaphragm

Insert the diaphragm no more than 2 hours before first having intercourse as the spermicidal jelly works only for about that length of time.

However, repeated intercourse is possible during those 2 hours. If, after 2 hours' time, you want to have intercourse once again, to be on the safe side, insert a new layer of jelly into the vagina with an applicator or your finger. The diaphragm should remain in the vagina at least 6 to 8 hours after the last intercourse and then be removed no later than after 24 hours. Wash off carefully with water and a little soap and then let it dry completely.

A diaphragm has a life expectancy of up to 2 years. After experiencing weight change (of more than 5 kg) or after giving birth, have the size of the diaphragm checked and if necessary adapted to the new conditions.

› SAFETY: Under ideal conditions the failure rate lies between 6% and 14%, under typical conditions between 12% and 18%. Various studies have shown that, even when used properly, the diaphragm has a varying failure rate; the reasons for this are presently unknown.

The high rate of failure under typical conditions may largely be due to the fact that the diaphragm fails to be (re)inserted before every act of intercourse.

Proper instructions are necessary to ensure correct use of the diaphragm.

+ BENEFITS: One only needs to use the diaphragm when actually having sex. It contains no latex, does not affect the hormonal balance and is inexpensive. It normally carries no negative health risks

Some women find the experience of using the diaphragm valuable and say they get to know their body better in the process.

– DISADVANTAGES: Use of the diaphragm demands some practice at the outset. However, once it can be properly inserted, it offers a sufficient level of contraceptive safety. Some women, however, consider the whole process as unpleasant, having to touch their own vagina. Others report repeated urinary tract infections.

If the uterus is extremely descended or if there is a general weakness in the pelvic floor muscles, then the diaphragm may not be able to be inserted firmly behind the pubic bone. Women with (physical) impairments may experience the insertion process as difficult or even impossible.

› COSTS: A diaphragm costs up to EUR 50, a tube of spermicidal jelly ca. EUR 9. There may be some additional costs for postage, fitting and control examinations.

## FemCap™

The FemCap™ is a silicon cap consisting of a brim, a cap and a circular recess in between. The cap has a loop on it for removing it from the vagina. It comes in three different sizes.

› EFFECTS: Like the diaphragm, the FemCap™ is inserted into the vagina and placed directly over the cervix; the edge is pressed directly against the vaginal wall. The cap acts as a barrier to sperm cells trying to enter the uterus through the cervix. And like the diaphragm, the FemCap™ is used together with spermicidal jelly, which in Germany contains lactic acid, which reduces the motility of the sperm cells.

› USE: The FemCap™ can be inserted directly before intercourse or up to several hours before intercourse. First, about a teaspoon of spermicidal jelly is applied to the cap and another teaspoon to the niche facing the vagina. Then the cap is inserted. It should stay in place for at least 6 hours following intercourse but remain in the vagina for no longer than 48 hours. It may be cleaned with warm water and a little soap.

The FemCap™ generally has a lifetime of at least 2 years.

› SAFETY: There is only one small study available on the failure rate of the FemCap™, so that presently no exact statement can be made as with the other

methods. Under ideal conditions the failure rate is 18%, under typical conditions 22%.

Use of the FemCap™

The FemCap™ should be fitted by a professional. Its reliability depends greatly on its being correctly used, which is why a proper fitting is so important. Let your gynecologist show you how to feel your own cervix, how to insert the cap and how to test whether it is properly positioned over the cervix. You should also practice removing it.

BENEFITS: One only needs to use the FemCap™ when actually having sex. It does not affect the woman's hormonal balance and carries no known negative health risks. The FemCap™ can also remain in the vagina longer than the diaphragm (up to 48 hours), in which time more than one act of intercourse is possible. The FemCap™ is made of silicone and is thus suitable for women with a latex allergy.

DISADVANTAGES: Proper use of the FemCap™ demands practice. Some women find it difficult to insert and remove the FemCap™. And even if it has been properly inserted, it may slip off the cervix during intercourse. Thus, it is recommended that the proper position be checked following intercourse. If it did slip out of position, use the "morning-after pill" may be necessary to prevent an unwanted pregnancy..

› COSTS: The FemCap™ costs between EUR 50 and EUR 60. There are additional costs for the spermicidal jelly, shipping, fitting and control examinations.

# **Copper coil** (IUD) and **copper chain**

The copper coil, the copper chain and the hormone IUD are implanted into the uterus and work locally. They offer a high level of safety.

## **Copper coil** (IUD)

The IUD (from "intrauterine device") consists of a T- or anchor-shaped plastic frame wrapped with a thin copper coil. Various forms and sizes are available.

In some models, the copper coil has a core made of silver, whereas in others this is a copper-gold alloy. Which of these different models is actually better is presently unknown. Depending on the model, IUDs can remain in place in the uterus for between 3 and 10 years.

› EFFECTS: Small amounts of copper are released by the IUD to the uterus, which in turn changes the consistency of the cervical mucous and the lining of the uterus, limiting the motility and fertility of the sperm cells. Nevertheless, even if fertilization does take place, the fertilized egg cannot lodge in the uterus lining.

› USE: An IUD must be inserted by a gynecologist through the cervix and into the uterus in the course of a gynecological examination.

The ideal time for insertion is in the last days of a woman's menstrual period, when it is certain that she is not pregnant.

The safety thread of the IUD is shortened to a length of about 2 cm and hangs out of the cervix. This allows a professional to remove it later if need be.

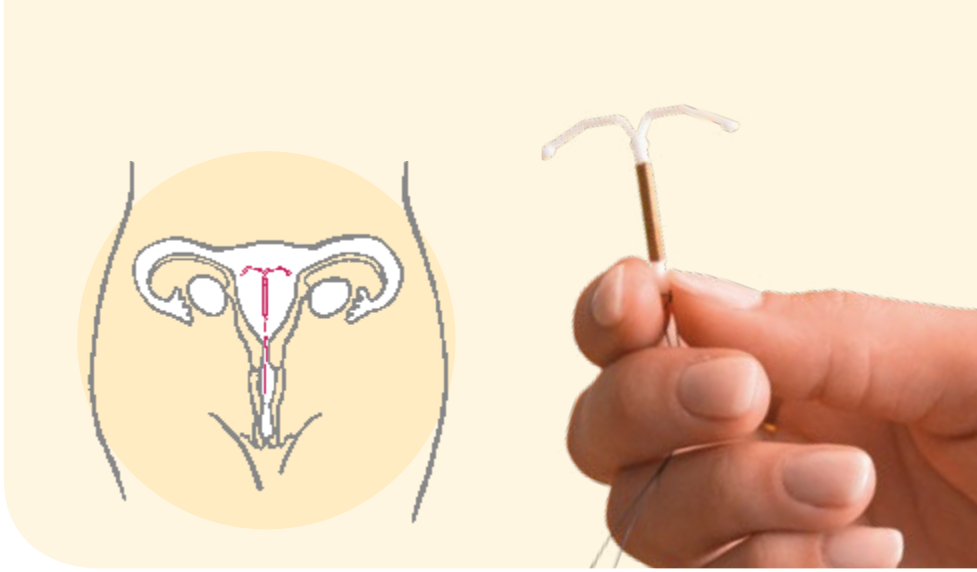
The pain involved during insertion of the IUD can vary widely. Women who have already borne a child generally have little pain, where childless women may experience severe (but short-termed) pain. The gynecologist can administer pain medication beforehand or insert the IUD using local anesthesia. Frequently, a drug is given beforehand to dilate the cervix, which make insertion easier but does not necessarily reduce the amount of pain. This drug may also cause abdominal cramps.

After inserting the IUD, the gynecologist uses ultrasound to check its proper position. A control examination is recommended after the next monthly period and every 12 months thereafter. The woman can also control with her fingers whether the safety thread can be located and still has the same length. A good time to do this is after one's period.

› SAFETY: The IUD is considered a very safe method of birth control. Application errors play no role in the safety of the device, so that the failure rate is the same under ideal and typical conditions: 0.4–1.5%.

+ BENEFITS: Modern IUDs can remain in the uterus for between 5 and 10 years. During this time the woman does not have to worry about matters of contraception. Because the IUD works only locally in the uterus, there are no hormonal side effects. Many women like the fact that they continue to have their normal periods.

– DISADVANTAGES: The IUD tends to increase a woman's period bleeding and may sometimes cause more severe men-



strual pains. Thus, the IUD may not be suitable for women who already have heavy period bleeding. Vaginal examinations may be difficult or impossible in women with some specific physical impairments, thus excluding the IUD as a suitable form of contraception. In the first months following insertion, there is often bleeding, though this generally disappears later. Abdominal pains sometimes crop up outside the period. Because such pains may point to an infection or to the IUD having slipped out of position, women with these complaints should go to their gynecologist's office to have it checked.

In about one in every 20 women, the IUD is spontaneously expelled from the uterus, especially during the first months after insertion. Particularly younger women seem to have a higher risk here. For this reason, it is important that the position of the IUD be checked regularly. Injuries stemming from the insertion of the IUD are very rare.

The risk of infection in the uterus and the Fallopian tubes is slightly higher during the first few weeks after insertion. Because younger women and women with multiple sexual partners overall have more pelvic infections, they too have a higher risk of infection when using the IUD. Before an IUD is inserted, it is recommended that a woman be tested or treated for STDs or other infections such as chlamydia.

If a woman gets pregnant despite having used an IUD, there is a greater risk of a tubal (ectopic) pregnancy. If a woman's period goes missing, she should contact her gynecologist as soon as possible.

› COSTS: The IUD costs between EUR 120 and EUR 300, depending on the model. This price includes initial counseling, examination and the insertion of the IUD itself. Ultrasound examinations to control the position of the IUD are extra.

## Can young women and women who have not had children also use the IUD or the copper chain?

It was long believed that the IUD was suitable only for women who had already borne children. The side effects were quoted as the reasoning behind this assumption, especially the risk of pelvic infections with subsequent infertility.

Today, however, it is known that the risk of infection is only slightly higher, especially in the first weeks after insertion. And the risk declines if infections can be excluded in advance and if the woman uses condoms to protect herself from STDs during intercourse. The danger of infertility is not increased by using the IUD or the copper chain.

It is, however, unknown whether the risk of the IUD slipping or being expelled is higher among younger women and childless women. Present data suggest that a previous birth has no effect, but that the age of the woman may. It is presumed that the size of the uterus depends on the age of the woman, so that many IUD models fail to perfectly fit younger women and are thus expelled more often. Whether the copper chain is expelled more often by younger women is presently unclear in the absence of reliable data. Sometimes the insertion fails because the uterus wall is too thin to hold the copper chain in place.

But previous births do affect the amount of pain experienced. Women who have yet to bear children may experience the insertion of an IUD or a copper chain as much more painful.

Young women also tend to subsequently suffer more from abdominal pains, which then often (but not always) disappear after a few weeks.

With the IUD and the cooper chain periods are generally heavier and sometimes also more painful. Especially many young women appreciate the fact that hormonal contraceptives lead to lighter periods and fewer menstrual pains – benefits they have to give up when using an IUD or copper chain but can still enjoy with the hormonal IUD.

Thus, an IUD is also a good option for young women and for women who have not yet had children. Nevertheless, it is important that they discuss the benefits and possible risks with their gynecologist.

## Copper chain

Like the IUD, the copper chain is inserted into the uterus. It consists of four to six copper tubules strung on a nylon thread. Each element is about 5 mm in length and 2 mm wide. In order to keep the chain safely in place, the nylon thread is attached to the lining of the uterus. With the IUD, this function is fulfilled by the plastic frame.

› EFFECTS: Both the IUD and the copper chain have similar effects: The copper released to the uterus changes the consistency of the mucous at the cervix and in the uterus lining, which limits the motility and fertility of the sperm cells. Nevertheless, even if fertilization does take place, the fertilized egg cannot lodge in the uterus lining. The copper chain has a lifetime of about 5 years.

› USE: Insertion of the copper chain proceeds similarly to that of the IUD. It must be inserted by a gynecologist in the course of a gynecological examination through the cervix and into the uterus with the help of a special instrument for attaching the nylon thread to the muscular lining of the uterus. The gynecologist then checks whether the copper chain has properly attached.

A follow-up examination should be carried out after the next menstrual period, thereafter once a year. The copper chain can remain in place for up to 5 years before being removed by a professional with the help of the safety thread. Removal of the copper chain is about as painful as its insertion.

Insertion of the copper chain demands some expertise and practice. The manufacturer has provided a search function on its website (➔ **www.verhueten-gynefix.de/aerztefinder**). for women trying to locate a trained gynecologist. However, the list may not always be complete. Gynecologists not in the list may have the necessary experience, too.

› SAFETY: The copper chain provides the same level of safety as the IUD. The failure rate under both ideal and typical conditions lies at 0.1–0.5%.

✚ BENEFITS: With the copper chain, the woman does not have to worry about contraception for a long time. Her

natural menstrual cycle remains intact, and there are no hormonal side effects. The flexible copper chain conforms well to the uterus and thus may also be suitable for women whose uterus is deformed and who cannot use the normal IUD.

Also, women whose bodies have rejected the IUD may find that the copper chain is a good alternative..

DISADVANTAGES: The copper chain has similar side effects as the IUD. Periods are often stronger and sometimes also more painful. Midcycle bleeding sometimes occurs.

The risk for infections in the uterus and Fallopian tubes is increased slightly. In 2 of 1000 women the act of insertion causes an injury to the wall of the uterus.

If a woman does get pregnant despite having used a copper chain, there is a greater risk of a tubal (ectopic) pregnancy. Thus, it is important that she contact her gynecologist as soon as possible if her period goes missing.

Inserting the copper chain is more difficult than inserting the IUD and demands sufficient experience on the part of the gynecologist.

If the thread fails to be properly anchored to the wall of the uterus, the chain may slip out of the uterus completely. The copper chain tends to be expelled more than the IUD in the first few months but thereafter only rarely.

› COSTS: The copper chain costs between EUR 200 and EUR 350, which includes the costs for insertion. In most cases, the costs for later ultrasound control examinations must be borne by the patient

## Hormone IUD

The hormone IUD consists of a T-shaped plastic frame with a depot that releases the gestagen levonorgestrel. Thus, it is a hormonal method of contraception otherwise similar in all respects to the copper IUD. It is available in several different sizes and hormonal dosages. It can be left in place for 3 or 5 years, depending on the model.

› EFFECTS: The hormone IUD emits levonorgestrel directly into the lining of the uterus, which has the effect of making the mucous surrounding the cervix thicker and thus nearly impassable for sperm cells. Sperm cells that do make it through are generally inhibited in their motility and fertility. Further, the hormone inhibits the proper buildup of the uterus lining, thus stopping any fertilized egg from nesting in the uterus. The hormone IUD mainly works locally. The amount of hormone that enters the rest of the body is much less than with the combination pills and thus not enough to prevent ovulation. It does, however, affect the hormone production in the ovaries. There may be some side effects, too.

› USE: Like the copper coil IUD, the hormone IUD must be inserted by a gynecologist in the course of a gynecological examination through the cervix and into the uterus. Insertion may cause similar discomfort as with the normal IUD (➔ p. 50).

If the hormone IUD is inserted from the first to the seventh day of the woman's period, it is immediately effective. If it inserted later than this, an additional means of contraception must be used in the first seven days, such as a condom.

The gynecologist then checks the position by ultrasound. Regular control examinations are necessary. In addition, the woman can check with her own finger whether the safety thread, later used by the gynecologist to remove the hormone IUD, is still there.

› SAFETY: The failure rate under ideal and typical conditions is 0–0.5%. Safety is very high since there can be no application errors.

**+ BENEFITS:** Once the hormone IUD has been inserted, the woman does not have to worry about contraception for a long time. The period is usually somewhat weaker and in some women completely absent, which especially women with very strong periods appreciate. Since only a small amount of hormone is released into the body, the hormone IUD is also suitable for women who cannot use other hormonal methods of contraception for health reasons.

**– DISADVANTAGES:** Some women are bothered by the fact that their period is irregular or completely absent. The hormonal side effects are minimal and generally less than with other hormonal products, but they may still occur especially in the first few months. This includes headaches, tension/tenderness in the breasts, nervousness, lack of libido, depressive moods and acne.

The risk of thrombosis, heart attack or stroke is not increased, whereas the risk of contracting breast cancer may be slightly higher. Because of the very low dose of hormones released, the hormone IUD can be employed in many cases where the contraceptive pill would carry too large a risk. With more serious diseases (such as breast cancer, severe cardiovascular diseases), speak first with your doctor whether it is advisable to use the hormone IUD.

Sometimes the IUD itself can cause problems. In about 1 in every 20 women it shifts about over time or is expelled. Thus, it is important to have a gynecologist periodically check the position of the IUD.

In about 1–2 of every 1000 women, the process of inserting the hormone IUD injures the wall of the uterus. The risk of infection in the uterus and the Fallopian tubes is slightly higher during the first few months. If a woman does get pregnant despite having used the hormone IUD, there is a greater risk of a tubal (ectopic) pregnancy. Thus, it is important that she contact her gynecologist as soon as possible if her period goes missing.

› COSTS: The hormone IUD costs between EUR 250 and EUR 400, which includes the costs of counseling, examination and insertion of the IUD itself.

The costs for ultrasound control examinations must be borne by the patient.

# **Natural** family planning (NFP)

Several methods are available based on perceiving one's own fertility. These can be used, on the one hand, to get pregnant more quickly or, on the other hand, to prevent pregnancy. The various methods have various levels of reliability, and only the so-called symptothermal method is considered safe. For this reason, it is described in this brochure. The so-called calendar method, which presumes to calculate the fertile days, is in contrast comparatively unsafe (➔ **p. 67**).

## **Symptothermal** method

The symptothermal method serves to identify the fertile days of a woman's menstrual cycle. This method demands the daily observation of certain physical signals and above all strict adherence to them. Intercourse must either not take place on the fertile days or only with additional contraceptive means. More than with any other method of contraception, with NFP the woman is highly dependent on the involvement of her partner. On the other hand, many women profit from getting to know their bodies better with this method.

› EFFECTS: The symptothermal method is based on observations and the evaluation of two specific bodily signals: basal (morning) temperature and cervical mucous. The state of the cervix can also be consulted.

The mucous of the cervix reveals approximately when ovulation is taking place; the basal temperature shows when ovulation is over. The state of the cervix and the uterine orifice also provides important information.

Although a woman is fertile on only about 6 or 7 days of her menstrual cycle, there is no exact way to determine this timespan. The symptothermal method can at least narrow that window to about 12 to 14 days, during which only sexual practices should be used which exclude any possibility of fertilization – or some additional method is used, such as a condom. No contraceptive is necessary on the remaining days.

› USE: The following descriptions can only provide a rough sketch of how the symptothermal method works. In order to implement it yourself, you need additional information and extensive instructions (e.g., via ➔ **www.sensiplan.de** or ➔ **www.mynfp.de**).

## Measuring basal temperature

A woman's basal temperature upon awakening is somewhat lower in the first half of the menstrual cycle (i.e., from the first day of her period up to ovulation) than in the second half. Following ovulation, her temperature rises by about 2/10 of a degree (Celsius) and remains at that level until the next period commences. It is this information that is used to determine when ovulation has taken place.

The temperature is taken directly after awakening – and before getting up out of bed. It is important to have slept at least one hour.

Whether the temperature is taken in the vagina or anus is of no consequence, but it must always be measured at the same spot over the entire cycle. A simple gallium thermometer is sufficient and provides more exact readings than a digital thermometer, though the latter has the advantage of measuring the temperature more quickly. The registered temperature is either marked in a table or entered into an app.

## Observing the cervical mucous

The cervical mucous is produced by the tissues surrounding the cervix and can be felt (and seen) through the vaginal opening. The consistency of this mucous changes over the course of the menstrual cycle. At the beginning of the cycle, it feels rather dry and cannot be seen. A few days before ovulation, however, the mucous becomes moist and can be directly noticed (e.g., on toilet paper) or felt with the finger. It also slowly changes color: from initially milky white (like yoghurt) to a clear, stringy fluid (like egg-white) a few days before ovulation. Directly after ovulation it quickly changes its consistency and once again becomes white and murky.

One important fact: Sexual arousal, semen and the spermicidal jellies used with the diaphragm and the FemCap™ can all have an effect on the cervical mucous and must be taken into account with this method.

## Determining the fertile and infertile days

With the symptothermal method one can more easily determine the end

than the beginning of the fertile period. The most important signals are a rise in temperature and the disappearance of the clear mucous. To be on the safe side, one should add a few days of buffer here: The infertile time thus begins on the evening of the third day of increased temperature or on the third evening of the greatest change in mucous consistency (most fluid, clear and stringy), depending on which of these two signals is last observed. From that point until the onset of the next period the woman is no longer fertile.

Yet observing the state of the cervical mucous is not exact enough to precisely determine the fertile part of the cycle and prevent pregnancy.

For that reason, the following rules are valid for the first half of the menstrual cycle, beginning with the first day of the woman's period, up to ovulation: If a calendar of the last 12 menstrual cycles is available, 20 days are subtracted from the shortest cycle, the result of which corresponds to the number of infertile days at the beginning of the cycle. If temperature curves are available for the past 12 cycles, 8 days are subtracted from the earliest day of increased temperature, the result of which corresponds to the number of infertile days at the beginning of the cycle. Independent of these calculations, the fertile part of the cycle always begins at the latest at the first signs of moist mucous.

› SAFETY: The failure rate with perfect implementation is 0.4%, under typical conditions 1.8–2.6%. However, these data were collected on women who had been well trained and counseled in use of this method, so they may not be completely valid for everyday application.

Nevertheless, with proper counseling and under strict adherence to the rules, this method can prove to be very safe. User errors of all kinds and a lack of rigor in attending to the bodily signals, however, may limit its overall safety. Especially the beginning of the fertile days may be set too late in light of the fact that sperm cells can survive in the uterus for a number of days.

The symptothermal method should be applied for at least 3 menstrual cycles before relying on it as birth control protection.

Using this method takes practice and time. Counseling services, some of which offer special courses to master this method, may be found under
**➔ www.familienplanung.de/beratungsstellensuche**.

In addition, the Swiss Sympto-Therm Foundation and the Maltese Working Group NFP offers introductory courses and informational materials (the latter may be found at ➔ Kalker Hauptstraße 22–24, 51103 Cologne, www.nfp-online.de).

An empty table for entering your own data may be downloaded on the internet at
**➔ www.familienplanung.de/tabellen**.

Tables in various other languages are available at
**➔ www.nfp-online.de**.
(NFP method, menstrual cycle table).

**+ BENEFITS:** Natural methods of family planning have no effect on normal bodily functions. They have no side effects, cost nearly nothing and demand no regular visits to the doctor's office. Women who use NFP as a means of contraception get to know their bodies very well and can directly monitor their fertility, which can strengthen both self-confidence and self-awareness.

Many couples use this method to realize their desire for children: In order to increase their chance of getting pregnant, they schedule intercourse on the fertile days. Especially women who have a good relationship with their own bodies like the symptothermal method.

**– DISADVANTAGES:** The learning phase is rather long at 3 months, though thereafter it can be easily integrated into one's daily routine.

Women with irregular ovulation will not be able to properly determine their fertile and infertile days, rendering the method of no use to them. .

Women with very long or irregular cycles may experience very long periods of time in which fertility is indicated – and during which additional means of contraception must be employed. Such phases may occur, for example, while nursing, during puberty, during menopause, and in times of great stress or illness.

Women who use natural methods of contraception are highly dependent on the cooperation and responsibility of their partner, more so than with other methods. The couple's sexuality must adapt to the calculated fertile and infertile periods, that is, especially barrier methods such as the condom must be used on the fertile days or the couple reverts to sexual practices that bear no risk of pregnancy. Some couples consider this a detriment to their spontaneity.

› COSTS: The only costs are for a thermometer and perhaps for counseling when learning the method.

## Technical tools
for calculating ovulation

Technical tools such as devices to measure temperature or hormones as well as so-called NFP apps can complement the symptothermal method introduced above. Whereas the former directly measure one's temperature or hormonal status, the NFP apps only evaluate data measured and then calculate the fertile days..

Use of an apparatus for measuring temperature or hormonal status assumes that proper knowledge of the NFP method is already present. If not, one may easily draw the wrong conclusions from the information given on the display. Menstrual cycle computers alone do not represent safe methods of contraception..

### Temperature computers

These are small battery-powered devices about the size of a small saucer plate which measure body temperature with a sensor. Often, they are also able to evaluate additional observations, like the consistency of the cervical mucous, and then calculate the fertile and infertile days of the menstrual cycle, showing the results with the help of a row of lights.

› SAFETY: There are presently no sound scientific studies of the contraceptive safety of the available devices, only empirical reports, according to which they tend to calculate fertile periods that are too long.

### Hormone computers

These calculate the fertile days by analyzing the level of certain hormones in a woman's morning urine. To this end, several test strips are needed each month. The woman enters the first day of her menstrual cycle (the beginning of her period) and the computer then requests her to test her urine on specific days and enter the results into the computer, which evaluates the concentration of the hormones (luteinizing hormone and estrogen). It then calculates the fertile and infertile days and shows them with a row of lights.

According to the manufacturer, hormone computers are suitable only for women who have cycles between 23 and 35 days in length.

› SAFETY: Certain drugs and illnesses can distort the test results, for example, medicines used to treat hormonal problems and some antibiotics as well as diseases of the liver and kidneys, ovarian cysts and other diseases of the ovaries. Hormone computers are not considered safe enough for contraceptive purposes since they tend to show shorter fertile periods than the temperature computers and thus cannot be safely trusted.

BENEFITS: Instead of having to measure one's temperature every morning, with a hormone computer the woman has only to have her urine analyzed a few times in every cycle. That is practical. The hormone computer is best suited for couples who are trying to have children and, by having intercourse on the fertile days calculated by the computer, can increase their chances of becoming pregnant.

› COSTS: The price of a temperature or hormone computer runs between EUR 100 and EUR 700, depending on the model. Test strips for the hormone computer cost between EUR 8 and EUR 35 per month.

## NFP smartphone apps

There are any number of apps available that calculate a woman's fertile days. Most of them, however, do not adhere to the rules of the symptothermal method and for that reason are as unreliable for practicing contraception as the calendar method (➔ p. 67).

Only apps that adhere to the rules of the symptothermal method can be considered reliable sources of contraceptive information. Further, besides the length of a woman's cycle, the programs should be able to evaluate information on basal temperature as well as the state of cervical mucous and the cervix itself to calculate fertility. Such apps can help women in this regard, but they cannot replace learning and strictly adhering to the rules of the symptothermal method. They calculate menstrual cycle curves from the data entered, showing the fertile and infertile days in a calendar, which enables one to compare successive cycles. It is also possible to set up an alert to signal the need to enter the daily data.

**When choosing such a health app, consider the following criteria:**

- Is it discernible who created the app (developer, manufacturer)?
- Are the sources given that were used for the app (contents)?
- Is the app updated at regular intervals?
- Can the user easily recognize the purpose of the app and the intended target group?
- Are all important functions clearly described and clearly understandable before installation? Do the functions offered by the app in fact meet your needs? Are there any limitations that might argue against installation?
- Is the user informed in a clear and understandable way how the data provided are being used and protected?
- How extensively does the app require access to your smartphone data? If access demands exceed a reasonable limit, the app should not be used.

To date there are no conclusive studies on the safety of the various available apps. Thus, presently, even after you have carefully entered your data, it remains unclear how reliable the protection against an unwanted pregnancy actually is.

# Sterilization

Sterilization, i.e., the clamping off or severing of the woman's tubes or the man's seminal ducts (vasectomy), is a very safe contraceptive method. Such an operation leads to long-term infertility in both sexes. For this reason, this step should be carefully considered beforehand and above all should be considered only when all family planning has been completed and no (more) children are foreseen. Yet what is true today can quickly change under new or different conditions. For example, a new partnership often leads to the desire for a(nother) child.

Recent advances in microsurgery allow some sterilizations, at least in principle, to be reversed (refertilization). In both men and women, the severed tubes/ducts can be operatively reconnected. But the operation is complex and relatively expensive: In women, it costs between EUR 2000 and EUR 4500, in men slightly less. And there is no guarantee that fertility will in fact return.

For this reason, it is important to carefully weigh the pros and cons before proceeding. No one should be put under pressure; take your time to decide. Counseling centers can answer your questions and help you to order your thoughts (→ p. 90).

It happens again and again that men and women regret their decision to be sterilized. The risk is higher the younger one is at the time of operation. Bad decisions tend to be made in difficult situations in life, for example, during a separation or divorce phase, following an abortion or directly after a difficult birth. Thus, especially in crisis situations, it is important to take the necessary time and not be rushed into a decision.

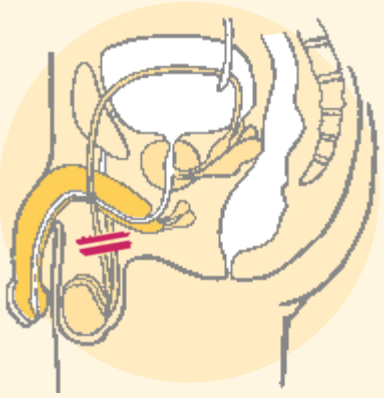
Both partners should be completely agreed that they no longer want to have (more) children and together are aware of what such a step entails for their relationship – including their sexual relationship. This is equally true for men and women who are not in stable relationships.

No one should be pressured into a sterilization, also not by one's partner. In the end, every individual has to decide for themselves whether this is the proper step to take.

## Sterilization in **men**

Sterilization in men (vasectomy) is carried out by cutting and then clamping off the loose ends of the seminal ducts (vas deferens) so that sperm cells can no longer enter the semen. The procedure is usually done on an outpatient basis, either with local or general anesthesia.

The surgeon makes a small cut on the left and the right side of the scrotum. The seminal ducts are then pulled out and severed, the loose ends tied off, fused together with heat (coagulation) or chemical substances, or closed with titanium clips. The two ends of the respective ducts are then repositioned in different tissue levels of the scrotum so that they cannot spontaneously rejoin. In most cases the wound does not need stitches but is simply closed with a Band-Aid. The whole operation takes about 30 minutes.



Following the operation, the man should rest a while. In principle he could have sex again a few days after the procedure, but it is recommended that he use other contraceptive means in the interim since fertile sperm cells can survive in the ducts for several months.

These "reserves" are generally used up after some 15 to 20 ejaculations. To test this, several visits to the doctor are necessary to take a sperm count. Only when no sperm cells can be found can one forego all means of contraception.

Following a sterilization, the amount of semen remains virtually unchanged, since semen production occurs in the prostate and other glands and consists of only about 5% sperm cells. Sperm cells continue to be produced by the testicles, but only as many as the body can safely absorb.

› SAFETY: The failure rate under ideal conditions is 0.1%, under typical conditions 0.15%. Properly carried out, a vasectomy is the most reliable means of contraception for the man. Only in very rare cases do the seminal ducts spontaneously reattach, thus reinstating fertility. But it is important that the waiting time be observed and the control exams be carried out after the operation.

\+ BENEFITS: The vasectomy is a relatively simple surgical procedure that only rarely results in severe complications.

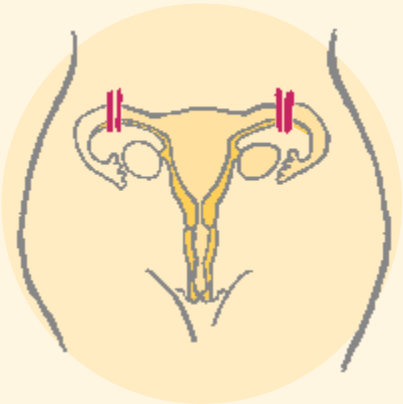
– DISADVANTAGES: Complications such as bruises or infections are rare. Besides unexpected psychological problems in light of one's sudden infertility, some men experience chronic pains in the testicles. These pains may increase during sexual activity. However, rarely do these pains actually affect one's quality of life. It is difficult to reverse a sterilization, and the chances of success are uncertain. → **www.familienplanung.de/kinderwunsch/behandlung/refertilisierung-des-mannes**

Many men worry that sterilization could impair their sex life, but this fear is (physically speaking) unfounded.

The man's sexual desire and his ability to reach orgasm remain unchanged, and the testicles continue to produce sexual hormones.

Nevertheless, psychological problems and erectile dysfunction do occur. That is another reason to carefully consider the consequences before undertaking the operation.

› COSTS: Male sterilization costs between EUR 450 and EUR 500. Ask in advance whether the costs of the control exams are included in the quoted costs



## Sterilization in **women**

Sterilization in the woman is done by closing off or cutting the Fallopian tubes, so that after ovulation the egg cannot pass through and meet up with sperm cells. This makes fertilization impossible.

The most common method is carried out laparoscopically, whereby the surgeon makes small incisions in the intestinal area and inserts instruments and a camera to carry out the procedure. A 1-cm section of the tubes is then either melded with heat (cauterized) and cut or clamped off with a clip. Sterilization is normally carried out during the first half of the menstrual cycle (i.e., before ovulation) to exclude a pregnancy at the time of the operation. This method of sterilization can be carried out on an outpatient basis or an inpatient basis in a clinic under a short general anesthesia (30 minutes). Following the operation, the woman should rest for a while, but can commence having intercourse whenever she feels comfortable with it.

› SAFETY: The failure rate under both ideal and typical conditions is 0–0.5%. The risk of becoming pregnant despite having been sterilized is slightly higher

among younger women. This depends on the method chosen and on the operative skills of the surgeon carrying out the sterilization. Cauterization and cutting the tubes has proved more reliable than the use of clips.

BENEFITS: Sterilization provides a reliable, long-term method of contraception. The operation has few risks and few long-term side effects. It does not affect a woman's hormone production nor her libido and generally has no effect on the menstrual cycle or the beginning of menopause.

DISADVANTAGES: Sterilization in the woman remains an abdominal operation with some, albeit small, risks for complications (bleeding, damage to blood vessels, nerves or internal organs, infections).

If the woman does become pregnant despite having been sterilized, it is generally a tubal (ectopic) or abdominal pregnancy. Reversal of a sterilization is difficult. → **www.familienplanung.de/sterilisation-frau**

› COSTS: Sterilization in women costs between EUR 600 and EUR 1000.

# **Unsafe methods of contraception** (if indeed methods at all)

## **Coitus** interruptus

The idea of a "timely withdrawal" or simply "watching out" belongs to the traditional but unsafe ways to prevent pregnancy. Here, the man pulls his penis out of the vagina immediately before ejaculation and orgasm, both of which then take place outside the woman's body.

This method offers no safety since the fluid produced before ejaculation may already contain some sperm cells. However, the major reason for failure and subsequent pregnancy lies in not pulling the penis out of the vagina in due time. Also, an ejaculation at the entrance to the vagina can still lead to pregnancy. Thus, the failure rate under ideal conditions is 4%, under typical conditions 22%.

Coitus interruptus needs no tools or materials, no advance preparation, no major discussion. It is easy to apply but demands great self-discipline. There are much better methods that should be preferred!

## Calculation of **fertile days**

Calculating the fertile days of the menstrual cycle (called the Knaus-Ogino method, the calendar method or the rhythm method) offers poor protection against unwanted pregnancy. A logbook of the menstrual cycles of the previous 6 months is used to determine the longest and the shortest cycle. From this data, one calculates the presumed fertile and infertile days of the cycle.

However, ovulation may unexpectedly occur earlier or later than calculated. Observing certain bodily signals (symptothermal method) could better identify these aberrations, but a simple calculation of the infertile days does not. For this reason, this method is very unsafe and not to be recommended.

Similarly, apps that show the fertile days based solely on the menstrual cycle are not useful as contraceptive methods. The failure rate under ideal conditions lies at 5%, under typical conditions at 20%.

# Contraception **following birth**

When women and couples once again desire to have sex following a birth can vary greatly. It may occur quite soon, but it may also take many months. This of course affects the need for contraception.

Women who do not or only very shortly nurse their babies generally ovulate once again about 4 to 6 weeks after giving birth. From this moment on they can once again become pregnant. If they want to resume having intercourse, they should begin to actively practice contraception about 3 to 4 weeks after giving birth.

If they commence later and have still had no period, it is important to exclude an existing pregnancy. Under certain circumstances, a woman nursing her child enjoys a natural form of contraceptive protection. If she wants to be additionally protected, she should choose a method that is not detrimental to her milk production and has no negative effects on the child.

## **Barrier** methods

Barrier methods such as the condom or diaphragm are well suited for women who are nursing since they have no negative effects on milk production or the health of the newborn baby.

However, even if the diaphragm was being used before the pregnancy, the size and position should be checked following a birth. The physical changes a pregnancy causes may mean that an old diaphragm no longer properly fits. This

control visit to the gynecologist should take place about 3 months postpartum, once the pelvic floor has again reached its normal size and state. But the following is true for all barrier methods: They are only as safe as the caution and consequence their users apply.

## Compounds containing **gestagen**

The minipill, the hormone implant and the three-month depot injection are all suitable while nursing.

The gestagens in these means do not affect the milk production. Nursing mothers can start using these methods at about 6 weeks postpartum; women who are not nursing can start at any time if they require contraception.

## IUD

The IUD has no effect on milk production and makeup and can thus also be used while nursing.

However, in the time immediately after a birth and while nursing, the danger is higher that the uterus may be damaged during the insertion.

Further, the rate of rejection and expulsion of the IUD is higher in the first weeks after giving birth. Thus, the nursing mother should delay insertion until her uterus has returned completely to its normal size, i.e., no earlier than 6 weeks postpartum.

The hormone IUD is generally also acceptable while nursing since it contains only gestagen.

## **Natural methods** of family planning (NFP)

Women with no previous experiences in NFP should not begin this method while nursing.

Following a birth, it is unclear when the normal menstrual cycle will return and when the fertile days can once again be safely calculated. Women who have considerable experience with this method and feel safe about using it, on the other hand, can continue to employ NFP as a means of contraception. There are, however, special rules to adhere to when observing and evaluating one's bodily signals while nursing. Consult your gynecologist on this matter.

## Combination **hormonal methods**

Hormone pills and patches and the vaginal ring should not be used while nursing since the estrogen contained in these products can retard the milk production.

On the other hand, women who are not nursing their child can use these meth-

ods without reservations. They can commence using combination hormonal methods as soon as the need for contraception arises, at the earliest about 3 weeks after giving birth, since the risk of thrombosis is higher in time immediately following delivery.

## The **"morning-after pill"**

Nursing mothers too can use the "morning-after pill." The hormones involved are passed on to the breast milk in only small concentrations, but because of the varying duration of their action the recommendations vary.

With the "morning-after pill" containing levonorgestrel, it is suggested that the mother nurse her baby directly before taking the pill and then wait for at least 8 hours before nursing again. With the "morning-after pill" containing ulipristal acetate, the mother should stop nursing her child altogether for at least a week. During this time, however, she should pump her breast milk (but discard it) in order to keep lactation going.

## Protection **through nursing**

When a woman nurses her child, her body produces the hormone prolactin, which retards activity in the ovaries and thus hinders ovulation – at least for a while.

Thus, women who are nursing their child completely and have yet to have a period (afterbirth discharge can be disregarded here) have a high level of contraceptive safety during the first 6 months after giving birth.

"Nursing a child completely" means the following:

- Nursing is done around the clock and at least 6 times in 24 hours
- Nightly nursing every 6 hours, during the daytime at least every 4 hours
- No supplemental food is given

If these rules are adhered to, then the failure rate is 0.2–2% in the first 6 months.

Yet if long nursing pauses occur or supplemental food is being given, the level of protection declines, making it necessary to use additional forms of contraception. The risk of pregnancy may also increase if the woman pumps her milk more often or allows use of a pacifier.

At the latest when the woman gets her first postpartum period or when the baby is 6 months old should she use additional protection. Women who want a high level of protection, however, should begin protection earlier. Especially barrier methods as well as hormonal means containing gestagen or an IUD are suitable here.

A gynecologist can help you to weigh the benefits and disadvantages of the various contraceptive methods and choose the best one to be used following giving birth. You may have to choose a specific contraceptive while nursing and switch to another once no longer nursing.

# Contraception **in the middle years**

A woman's fertility decidedly declines from the age of about 40 years onward. Changes to the monthly cycle are usually the first signs that menopause is approaching. These changes give many women reason to ponder how long contraception will still be necessary and what other changes menopause will precipitate.

During this stage some couples deliberate intensely whether or not to have a (or another) child. For others, their family planning has been (long) finished and they prefer long-term means of contraception.

## Physical **changes**

The menstrual cycle of many women begins to change at about age 45. In some, it slowly becomes shorter; in others, there are phases of irregular bleeding or whole cycles without ovulation.

In most women, however, the menstrual cycle becomes completely irregular only during the final years before menopause. Sometimes months can pass without a period; or several occur in very short timespans; or there are times of long-lasting bleeding.

Typical symptoms of menopause are hot flashes, sleeping disturbances and vaginal dryness; but if and when they occur can vary greatly from one individual to another.

In some women they occur only after all menstrual activity has long ceased, whereas in other women they may accompany relatively normal cycles. And not every woman feels strongly bothered by these side effects.

## How long is contraception necessary?

An important question in this period is how long one must practice birth control.

The chance of a woman 45 years and older of getting pregnant is very small, but individual fertility can vary widely.

This makes it nearly impossible to adequately judge the individual risk of pregnancy. Activity in the ovaries can also vary considerably. Even after one's period has been absent for many months, it may suddenly return and even be accompanied by ovulation.

For this reason, measurements of hormonal blood levels are of little value and reflect only the situation at the time of the examination – a month later, things may look very different.

Women who are taking hormones as contraceptive or to mitigate the symptoms of menopause and thus do not have normal menstrual cycles should speak with their gynecologist about how long to continue to use some sort of birth control.

In women with regular menstrual cycles, the decisive question is when the last period occurred.

If the last period takes place before the age of 50, experts now suggest continuing to practice contraception for up to 2 years. If the last period occurs after age 50, then it is recommended to continue contraception for up to 1 year.

## **Which contraceptives are recommended** during menopause?

Generally speaking, all methods of contraception are possible. With hormonal contraceptives, however, it is important that the risk factors involved be carefully considered.

The risk of cardiovascular diseases (heart attack, stroke, thrombosis) increases with age and is exacerbated by combination contraceptives containing estrogen and gestagen (➔ p. 26). However, if a woman at this age does not smoke, have high blood pressure, increased blood fats or other pre-existing illnesses, then the risk is low. The danger of thrombosis, on the other hand, is higher even in the absence of these risk factors.

If no other means of contraception are feasible and none of the above-mentioned cardiovascular risk factors are present, one can continue to use low-dose combination pills up until menopause.

It is important that the woman's blood pressure, blood fats and other cardiovascular risk factors be checked regularly.

### Minipill and hormone implant

The minipill (➔ p. 35) and the hormone implant (➔ p. 37) have fewer cardiovascular risks and are preferable to the combination methods. Women taking the minipill etc., however, often suffer from irregular periods.

### IUD and hormone IUD

Many women in this age range switch from the pill to an IUD. If heavy bleeding is a problem, the copper-coil IUD is likely not suitable (➔ p. 50) since it tends to increase bleeding. In this case, the hormone IUD (➔ p. 55) may be a good alternative since it tends to reduce the amount of bleeding considerably.

Middle-aged women often have myomas in the uterus (benign muscle nodes) that can deform the uterus and may make insertion or proper positioning of an IUD impossible.

### Barrier methods

Other women prefer barrier methods such as condoms (➔ p. 40), the diaphragm (➔ p. 46) or the FemCap™ (➔ p. 48). Their years-long sexual experience and familiarity with their bodies enable them to employ these methods with ease.

Weak muscles in the pelvic region, however, may prevent them from properly inserting the diaphragm into the recess behind the pubic bone. Sometimes special gymnastic exercises to strengthen the pelvic muscles can help – and incidentally also help to prevent bladder weakness. The FemCap™ may no longer fit well if the uterus has slipped down (prolapse).

## Natural methods of family planning

One can, of course, use the symptothermal method – but only for as long as the menstrual cycles are more or less regular and include ovulation.

If ovulation is often absent or if the cycles last very long, then the infertile days of the cycle can no longer be safely determined. The potentially fertile periods would then be very long indeed, defeating the purpose of this method.

## Sterilization

Sterilization (➔ p. 63) is a good alternative for many women of this age. Their family planning may have been concluded.

After the procedure, there is subsequently no need to worry about contraception again.

It is, however, an operation and is expensive. The question is also whether it worth doing the operation since only a few fertile years remain to worry about.

Because the operation is medically speaking easier and less invasive in men than in women, a vasectomy may be a good alternative for couples who have definitively concluded their family planning.

## **Combining hormone treatment** and contraception

Relatively few women are plagued by such massive problems during menopause that they resort to hormonal treatment.

The presence of the typical symptoms, such as hot flashes, does not necessarily signal the end of fertility, making contraception a continuing matter of concern.

Combination pills are effective against hot flashes but also carry with them a higher risk of cardiovascular diseases than those drugs prescribed specifically to treat the afflictions of menopause. Thus, they are not the treatment of choice.

Whether hormonal treatment of menopausal complaints with estrogens can be combined with contraceptives containing gestagen, such as the minipill, the hormonal implant, the 3-month depot or the hormone IUD, is something to discuss with your doctor on an individual basis.

The copper coil IUD and barrier methods, however, can very easily be combined with hormonal treatment.

Natural means of contraception, on the other hand, are not possible since the hormones change the consistency of the cervical mucous as well as the basal temperature: The fertile days can no longer be determined with any accuracy.

# **Contraceptive accidents** and the "morning-after pill/IUD"

If a woman has unprotected sex during the fertile period of her menstrual cycle or if an "accident" occurs – for example, a torn condom or mistakes while taking hormonal contraceptives – she may become pregnant. Yet it is still possible for her to prevent pregnancy. The "morning-after pill" and the "morning-after IUD" are examples of such emergency means of contraception.

# "Morning-after pill"

The "morning-after pill" works best when used as soon as possible – best within 12 hours following unprotected intercourse. It can be obtained in a pharmacy without a prescription. However, the "morning-after pill" does not prevent pregnancy in all cases.

› EFFECTS: The "morning-after pill" is available with two different active substances: levonorgestrel or ulipristal acetate, both of which have the effect of delaying or preventing ovulation. Male sperm cells can live for up to 5 days, in some rare cases for even up to 7 days, in the female uterus and Fallopian tubes. If ovulation occurs during this timespan, fertilization is possible.

Fertilization is still possible for up to 7 days following unprotected intercourse.

This is where the "morning-after pill" comes in: If ovulation has not taken place, the "morning-after pill" can prevent or delay it until viable sperm cells are no longer present in the uterus.

› USE: The "morning-after pill" should be taken as soon as possible following a contraceptive accident; this can be at any time during the menstrual cycle. With both compounds, one pill is taken one time only. The two active substances, levonorgestrel and ulipristal acetate, however, should not be taken simultaneously.

The "morning-after pill" is available in pharmacies without a prescription. Pharmacies also offer counseling on its use, for example, how to know whether a pregnancy is already present, how probable fertilization is and whether there are any grounds not to take the "morning-after pill," including possible interactions with other medicines.

Yet some individual pharmacies refuse to stock or hand over the "morning-after pill," in which case you should seek out another pharmacy. There is always a pharmacy open at night and on the weekends providing emergency service. This information can be found on the internet or from the answering service of your local pharmacy. It is also posted in the window of every pharmacy.

A "morning-after pill" taken during an existing pregnancy does not cause an abortion. The "morning-after pill" is not an "abortion pill," although it is often mistaken for one.

Some women become nauseous after taking the "morning-after pill," leading in rare cases to vomiting. In order to avoid this, it is advisable that the woman eat

a little something (e.g., a sandwich) before taking the pill. If vomiting does take place within 3 hours after swallowing the pill, a new pill must be taken.

After taking the "morning-after pill," the woman may get her monthly period either slightly later or earlier than expected.

If her period does not occur within a week after the expected time, then she should take a pregnancy test and arrange for a doctor's appointment. This is also true when there are other signs of a possible pregnancy (extremely weak or strong bleeding, intestinal pains, tension/tenderness in the breasts, nausea). It is especially important to use only nonhormonal means of contraception, such as a condom, until the next monthly period sets in. A woman who is taking the contraceptive pill and then uses the "morning-after pill" with levonorgestrel because of an intake error should continue to take the contraceptive pills as well as employing additional nonhormonal methods such as a condom for 7 days thereafter. However, if she has taken the "morning-after pill" containing ulipristal acetate, she should stop taking the pill for the next 5 days and use another means of contraception, such as a condom.

Consult with a pharmacist or your gynecologist concerning how to proceed with birth-control measures.

› SAFETY: The "morning-after pill" does not prevent all pregnancies. In order to get a head-start on ovulation, it is especially important to take the "morning-after pill" as soon as possible.

The pills containing levonorgestrel are approved for use no more than 72 hours (3 days) after unprotected intercourse; those containing ulipristal acetate can be taken up to 120 hours (5 days) after unprotected intercourse.

Women who are extremely overweight may experience a reduced effectivity of the "morning-after pill," particularly the pill containing levonorgestrel. In such cases, please consult with your gynecologist or a pharmacist to determine how best to proceed.

If other medicines are being taken concurrently, such as certain antibiotics, antiepileptics, anti-HIV drugs, virostatics or medicines containing St. John's wort, these may reduce the effectivity of the "morning-after pill." Women who regularly take (or recently took) such medicines should consult a pharmacist or a physician before taking the "morning-after pill."

According to present medical knowledge, should fertilization take place despite having taken a "morning-after pill" and the egg becomes lodged in the uterus, the embryo is not in danger of impairments.

This is also true if one takes the "morning-after pill" without knowing that one is pregnant. Presently, however, fewer data are available concerning ulipristal acetate than for levonorgestrel. Thus, anyone who becomes pregnant despite having used ulipristal acetate should report it to her doctor. Alternatively, she or her gynecologist can report it directly at ➔ **www.hra-pregnancy-registry.com/de.**

**+** BENEFITS: The "morning-after pill" is an effective way to prevent or retard ovulation if unprotected intercourse has taken place and thus prevent an unwanted pregnancy.

**–** DISADVANTAGES: Side effects are only rarely associated with taking the "morning-after pill," in particular vertigo, headaches, nausea and abdominal pains. Some bleeding, tension/tenderness in the breasts and vomiting may also occur, albeit only occasionally.

More information can be obtained at ➔ **www.familienplanung.de/pille-danach.**

› COSTS: The "morning-after pill" containing levonorgestrel costs from EUR 18, the "morning-after pill" with ulipristal acetate about EUR 35.

Women younger than 22 years of age and insured in a statutory health insurance company are reimbursed for any costs incurred if the "morning-after pill" was prescribed by her physician.

## “Morning-after IUD/copper chain”

The “morning-after IUD/copper chain” works similarly to the normal IUD/copper chain. The hormone IUD, however, is not practical as a “morning-after IUD.”

› EFFECTS: Inserting the copper coil IUD or copper chain up to 5 days after unprotected intercourse can prevent the egg from attaching to the wall of the uterus.

› USE: The IUD/copper chain must be inserted by a gynecologist and remains in the uterus at least until the next period commences.

› SAFETY: The “morning-after IUD/copper chain” has a high level of safety and prevention of an unwanted pregnancy, higher in fact than the “morning-after pill.”

+ BENEFITS: The “morning-after IUD/copper chain” is particularly called for when the woman wants to continue its use thereafter as a normal means of contraception. The information given in the section above on the benefits and disadvantages of IUDs is thus generally valid for the “morning-after IUD/copper chain” as well.

– DISADVANTAGES: Insertion of the “morning-after IUD/copper chain” does involve a (small) intervention in the uterus and can cause various pains and discomforts. The risks and side effects of the IUD/copper chain mentioned in the respective section above are valid for this emergency method, too (→ pp. 50 and 53).

› COSTS: The “morning-after IUD” costs between EUR 120 and EUR 300, the “morning-after copper chain” between EUR 200 and EUR 350. The costs for the insertion procedure are included in these prices.

# Unwanted pregnancy

The first clear sign of pregnancy is usually the absence of the woman's normal period. Later, other typical changes occur that point to a pregnancy, such as nausea (especially in the morning) and tension/tenderness in the breasts. A pregnancy test from the pharmacy or drug store can provide certainty. It can be used discretely at home and quickly lets you know whether you are pregnant.

All pregnancy tests function similarly: They test the woman's urine for a particular hormone the body produces once the fertilized egg has become embedded in the uterus. This hormone is also produced with ectopic pregnancies.

A pregnancy test done before a woman's period has failed to appear is not generally reliable. Such an early test should in any case be repeated after a while, at the latest if one's period goes missing. If you are unsure of the result, you can turn to your gynecologist to determine whether or not you are pregnant.

# **Pregnancy conflict** counseling

When a woman experiences an unwanted pregnancy or is confronted with a conflict because of that pregnancy, she should go as quickly as possible to a pregnancy counseling agency.

Sometimes it can be helpful if the woman's partner or a good friend accompanies her.

The staff at such counseling centers can provide information about available help and support during pregnancy and life with a child. They can also inform about the possibility of having an abortion.

This counseling serves to encourage and show empathy for the situation of the pregnant woman, not to lecture or patronize her. It has the goal of enabling her to reach an autonomous and conscientious decision.

An abortion during the first 12 weeks of pregnancy is exempt from punishment in Germany if the woman can prove having received pregnancy conflict counseling.

**Abortion, however, is not a form of contraception!**

# **Legal stipulations** for an abortion

## Pregnancy counseling

**According to the German law on abortion counseling, an abortion is generally deemed illegal, but is nevertheless allowed under certain exceptional circumstances:**

- No more than 12 weeks must have passed since conception.
- The pregnant woman must have received pregnancy conflict counseling at an accredited counseling service and produce proof of such counseling (§219, para. 2, section 2 German Penal Code).
- At least 3 days must have transpired between the counseling appointment and the abortion.
- The abortion must be carried out by a physician. The physician doing the abortion must not be the same person who counseled the woman.

## Indications for abortion

**Further, an abortion is not subject to prosecution if a proper legal indication has been determined by a physician.**

### Criminological indication

- No more than 12 weeks must have passed since conception.
- If it is a physician's finding that the pregnancy resulted from a sexual crime perpetrated on the woman (rape, sexual abuse or if the girl was under the age of 14 at the time of conception).

### Medical indication

Only if a medical indication is present can an abortion be carried out after the first 12 weeks since conception, in order to

- avert imminent danger to the woman's life or to avert severe impairment of her physical or mental state, should no other reasonable means be available to avert such danger.

The physician must inform the woman about the medical and psychological aspects involved in an abortion and point out her right to receive in-depth psychosocial counseling. The physician may issue an indication at the earliest 3 days after this consultation.

# Abortion

There are two basic methods of terminating a pregnancy: surgically and pharmaceutically.

## Surgical **abortion**

Surgical abortion is almost always carried out on an outpatient basis in an appropriate equipped doctor's private practice, an outpatient clinic or in a hospital.

The woman can go home 1–2 hours after the procedure. Only in situations where the pregnancy is already beyond the 12-week limit or in the presence of major illnesses is it sometimes necessary for the woman to stay in the hospital for a few days.

The most common – and least burdensome – method is to remove the fetal material by suction. To this end the cervical os – the opening to the cervix – is carefully dilated.

The entire procedure lasts about 10-15 minutes. It can be done under general anesthesia or under local anesthesia of the cervix, depending on which type the woman prefers. Both types of anesthesia carry little risk to the woman. Following the abortion, she should rest for a few days. A subsequent examination at a gynecologist's office should be done about 2 to 3 weeks later.

This procedure entails few complications. In exceptional cases some bleeding may occur during the operation itself; injuries to the uterus may also ensue, or tissue residues may remain in the uterus.

Infections of the uterus are extremely rare. The procedure should have no effect on later fertility if the operation has proceeded without complications.

The surgical method has the advantage of being over more quickly and producing less bleeding than the drug-based abortion.

## Pharmaceutical **abortion**

A pharmaceutical abortion is possible if the pregnancy has not progressed beyond the 9th week of gestation, i.e., up to the 63rd day after the 1st day of the last period.

This method can be carried out only by doctors specially authorized to do so. The regulations governing legal abortion (➔ p. 85) are valid for this method as well.

Pharmaceutical abortion involves taking two different drugs. The woman first takes a tablet in a doctor's office containing the ingredient mifepristone, which prevents the further development of the embryo and thus the pregnancy.

Then, she can go home, and 36 to 48 hours later she takes the second drug generally containing misoprostol under medical observation. This drug triggers the actual abortion bleeding. The woman them remains under medical observation for up to 3 hours, during which time the lining of the uterus and with it the fetal material are generally shed, though sometimes this occurs only after the woman has gone home. Bleeding occurs for a few hours thereafter, generally much stronger than that of a normal period. This bleeding sometimes lasts for up to 2 days. Abdominal pains are also common and can be treated with pain killers.

In about 3-5% of women, the embryo or the lining of the uterus is not completely expelled. Thus, a third visit to the doctor's office or clinic is always necessary for a postprocedure ultrasonic examination to ensure that all fetal material has indeed been aborted. This control examination is absolutely necessary. If the abortion is not fully complete or if severe bleeding continues, then the remaining tissue has to be removed by suction.

Bleeding usually continues for about 12 days, sometimes longer, following a pharmaceutical abortion, sometimes even longer. Infections in the uterus are rare. Later fertility is not harmed, if the abortion has proceeded without complications.

This method should not be confused with the "morning-after pill" taken following unprotected intercourse. The "morning-after pill" delays ovulation and thus prevents pregnancy, but it does not induce an abortion.

The pharmaceutical method spares the woman having to undergo an operation under anesthesia. There is also no danger of the uterus being mechanically injured. Some women consider this procedure to be a more natural one than a surgical abortion.

Both methods have a relatively low level of risk to the woman's health and to later child-bearing wishes – if carried out under medical supervision. Both also have their respective benefits and disadvantages. Counseling can help women to discover for themselves which method is best for their needs.

Since not all gynecologists offer abortion procedures, it is best to contact a counseling service (➔ **p. 90**) and ask for local addresses.

## Costs

Women who are having an abortion in accordance with the Pregnancy Conflict Counseling Act (§218a, Para. 1 of the German Penal Code) must bear the costs of the procedure themselves..

If they have no or only little income, they are entitled to having it paid for in accordance with provisions providing assistance for women having abortions in special cases. The costs are then assumed by the respective federal state. These benefits can be applied for at the woman's normal healthcare insurance company.

- This is also true for women who are not covered by statutory health insurance. In this case, they can turn to any healthcare insurance company, which issues a voucher to cover the costs and settles with the responsible state authorities.
- The costs involved comprise those of the actual abortion and any routine post-procedure medical examinations.
- All other costs, such as examinations carried out during pregnancy or for treatment due to complications stemming from the abortion procedure, are assumed by the woman's healthcare insurance company.
- In cases of medical or criminological indications, the statutory healthcare insurance company covers all costs. Private insurance companies generally cover only the costs of medical indications. With criminological indications, please talk to your private insurance company about assumption of the costs.

## **Birth control** following an abortion

Following an abortion, a woman can once again very quickly get pregnant, making it imperative that she immediately consider the matter of contraception.

Hormonal contraceptives (pill, minipill, patch, vaginal ring) can be started as soon as the very day of a surgical abortion or within the next 5 days thereafter. Following a pharmaceutical abortion, contraceptives can be started on the same day after taking the second drug.

The hormonal implant or the 3-month depot can also be inserted/injected immediately after an abortion.

An IUD/copper chain, on the other hand, is generally inserted at the earliest during the next menstrual period or about 5 weeks after the abortion. It is also possible to insert the IUD as part of the surgical abortion. Barrier methods (condom, diaphragm, FemCap™) can be used immediately.

# **Help** and advice

Answers to all your questions concerning sexuality, contraception, the desire to have children or pregnancy are available at no cost at any of the many family-planning centers. If you are pregnant and unsure whether to carry the child to term or are experiencing conflicts, such a counseling center can help you to weigh the various pros and cons.

These counseling centers also provide information about financial support and other assistance available to families and children in need. Further, they can assist in cases in which the two partners have different approaches to family planning.

These counseling centers are obligated to maintain confidentiality, and anonymous counseling is also possible.

Centers for abortion counseling are run by church associations and other social-welfare organizations as well as by other nongovernmental and municipal agencies. The addresses of such centers may be found in the local telephone directory or online. → **www.familienplanung.de/beratungsstellensuche** Local social service agencies or public health departments can also provide assistance.

Anyone contemplating getting an abortion must seek out special conflict counseling offered in an accredited counseling center for pregnancy conflicts. Only after presenting a certificate proving your attendance at such counseling can you get an abortion that is legally exempt from punishment within the first 12 weeks after conception.

The Caritas organization and the Social Service of Catholic Women do not provide such certificates, though they do provide counseling concerning pregnancy conflicts.

More on the topics of contraception, the desire to have children, pregnancy and counseling may be found under → **www.familienplanung.de**.


Ich liebe Dich

# Finding the right contraceptive

Deciding which contraceptive method to use is a very individual matter that depends on your personal preferences, life circumstances, concepts of sexuality and health situation. For this reason, it is not possible to recommend any one contraceptive method as optimal; rather, every woman and every man must decide for themselves which method best suits their present needs.

**The following pages provide an overview of all available contraceptives.**

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **Combination hormonal methods** | | | |
| **Contraceptive pill** (p. 26) | › between € 13 and € 23, depending on compound<br>› 3-month and 6-month packs are cheaper | › prevents ovulation<br>› prevents the sperm cells from reaching the uterus<br>› prevents the fertilized egg from lodging in the lining of the uterus | › taken daily with pauses, depending on compound<br>› intake begins on first day of menstrual cycle |
| **Vaginal ring** (p. 31) | › 3-month pack ca. € 35–48 | › prevents ovulation<br>› prevents the sperm cells from reaching the uterus<br>› prevents the fertilized egg from lodging in the lining of the uterus | › ring is inserted into the vagina by the woman herself<br>› ring is left in place for 3 weeks and is then removed<br>› new ring is inserted after pause of 1 week<br>› started at the beginning of menstrual cycle |
| **Contraceptive patch** (p. 33) | › 3-month pack ca. € 40 | › prevents ovulation<br>› prevents the sperm cells from reaching the uterus<br>› prevents the fertilized egg from lodging in the lining of the uterus | › patch is applied directly to certain parts of the body<br>› renewed after a week's time<br>› pause after 3 weeks<br>› started on first day of menstrual cycle |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › reliable protection<br>› simple to use<br>› shorter and weaker periods and fewer menstrual cramps<br>› improves skin complexion, may help with acne | › must be taken daily<br>› initial bleeding frequent<br>› possible side effects: nausea, vertigo, headaches, mood swings, loss of libido, tenderness/tension in breasts<br>› for health risks: see pp. 29–30 | › under ideal conditions: 0.3–1%<br>› under typical conditions: 2.5–9% |
| › reliable protection<br>› easy to use<br>› no daily reminder necessary<br>› vomiting and diarrhea do not damage effectivity<br>› otherwise all other advantages of the contraceptive pill | › touching one's own vagina may cause discomfort<br>› sometimes causes increased discharge and vaginal infections<br>› frequent initial bleeding<br>› possible side effects: nausea, vertigo, headaches, mood swings, loss of libido, tenderness/tension in the breasts<br>› for health risks: see pp. 29–30 | › under ideal conditions: 0.3–1%<br>› under typical conditions: 2.4–9% |
| › reliable protection<br>› easy to use<br>› no daily reminder necessary<br>› vomiting and diarrhea do not damage effectivity<br>› otherwise all other advantages of the contraceptive pill | › visible patch may be considered bothersome<br>› slight skin irritation where patch is attached<br>› patch may not stick on all skin types<br>› initial bleeding frequent<br>› possible side effects: nausea, vertigo, headaches, mood swings, loss of libido, tenderness/tension in the breasts<br>› for health risks: see pp. 29–30 | › under ideal conditions: 0.3–1%<br>› under typical conditions: 2.5–9% |

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **Contraceptives with gestagen** | | | |
| **Minipill with desogestrel** (p. 35) | › 3-month pack between € 20 and € 37<br>› 6-month pack is cheaper | › prevents ovulation<br>› prevents the sperm cells from reaching the uterus<br>› prevents the fertilized egg from lodging in the lining of the uterus<br>› reduces or eliminates menstrual bleeding | › is taken daily without a pause<br>› restarted on first day of new menstrual cycle |
| **Minipill with levonorgestrel** (p. 35) | › 3-month pack ca. € 30<br>› 6-month pack is cheaper | › prevents the sperm cells from entering the egg<br>› prevents the fertilized egg from lodging in the lining of the uterus<br>› does not reliably prevent ovulation | › must be taken very diligently at exactly the same time each day without a pause, no more than 3 hours late |
| **Hormone implant** (p. 37) | › ca. € 300 including insertion; removal: ca. € 40 | › prevents ovulation<br>› prevents the sperm cells from reaching the uterus<br>› prevents the fertilized egg from lodging in the lining of the uterus | › the hormone implant must be inserted by practiced doctor under the skin of upper arm<br>› effective for up to 3 years |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › reliable protection<br>› easy to use<br>› can be used while nursing<br>› fewer side effects and health risks than combination pill | › demands great discipline<br>› must be taken daily<br>› irregular bleeding<br>› in rare cases can cause acne<br>› possible side effects: headaches, mood swings, loss of libido, tenderness/tension in the breasts<br>› for health risks: see pp. 29–30 | › under ideal conditions: 0.3–1%<br>› under typical conditions: 2.4–9% |
| › reliable protection<br>› easy to use<br>› can be used while nursing<br>› fewer side effects and health risks than combination pill | › demands great discipline<br>› must be taken very diligently at exactly the same time each day<br>› must be taken daily<br>› irregular bleeding<br>› in rare cases can cause acne<br>› possible side effects: headaches, mood swings, loss of libido, tenderness/tension in the breasts<br>› for health risks: see pp. 29–30 | › under ideal conditions: ca. 1.5%<br>› under typical conditions: 2.4–9% |
| › very reliable protection<br>› no daily reminder necessary<br>› long-term contraceptive protection<br>› otherwise all other advantages of the minipill | › initial bleeding frequent<br>› expensive method if removed early<br>› in very rare cases rod must be surgically removed<br>› in rare cases can cause acne<br>› possible side effects: headaches, mood swings, loss of libido, tenderness/tension in the breasts<br>› for health risks: see pp. 29–30 | › under ideal and under typical conditions: 0–0.5% |

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **3-month depot injection** (p. 38) | › ca. € 30 per 3-month injection, plus up to € 15 for injection itself | › prevents ovulation<br>› prevents the sperm cells from entering the egg<br>› prevents the fertilized egg from lodging in the lining of the uterus<br>› period often does not return after several weeks | › must be (re)injected every 3 months by a physician |
| **Barrier** methods | | | |
| **Condom** (p. 40) | › ca. € 0.30–1.20* per condom<br>› latex-free condoms ca. € 1 per condom<br><br>* Some products may be cheaper on the internet | › prevents semen from entering the vagina | › is rolled over the erect penis before vaginal penetration<br>› should be used only with water-soluble lubricants |
| **Female condom** (p. 44) | › between € 8.50–10.50 for pack of 3 (+ p&h); larger units are cheaper | › prevents semen from entering the vagina | › must be inserted before intercourse<br>› use of lubricant recommended |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › reliable protection<br>› no daily reminder necessary<br>› long-term contraceptive protection | › initial bleeding frequent<br>› often leads to weight gain<br>› cannot be immediately stopped in case of side effects since effects lasts 3 months<br>› long-term use may lead to reduction in bone density<br>› menstrual cycle normalizes only slowly when discontinued<br>› otherwise all other side effects of the minipill, but more often | › under ideal conditions: 0.2–0.6%<br>› under typical conditions: 6–7% |
| | | |
| › must be used only when necessary<br>› cheap and widely available<br>› no negative side or after-effects<br>› protects both against pregnancy and HIV/STDs<br>› only means of contraception for males<br>› no regular doctor visits necessary | › women are dependent upon male responsibility and willingness to practice birth control<br>› can slip off or rip | › under ideal conditions: ca. 5%<br>› under typical conditions: ca. 21% |
| › must be used only when necessary<br>› no negative side or after-effects<br>› no regular doctor visits necessary | › proper insertion must be practiced<br>› considered by some to be bothersome during intercourse<br>› condom may slip completely into the vagina or be pulled out of place by the penis | › under ideal conditions: ca. 5%<br>› under typical conditions: ca. 21% |

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **Diaphragm** (p. 46) | › ca. € 50 + € 9 for tube of spermicidal jelly | › when used with a spermicidal jelly forms a barrier in front of the cervix, preventing sperm cells from entering the uterus | › diaphragm is placed over the cervix by the woman herself<br>› best used with spermicidal jelly<br>› instructions and practice necessary |
| **FemCap™** (p. 48) | › ca. € 50–60 + € 9 for tube of spermicidal jelly | › when used with a spermicidal jelly forms a barrier in front of the cervix, preventing sperm cells from entering the uterus | › the silicone cap is placed over the cervix by the woman herself<br>› best used with spermicidal jelly<br>› instructions and practice necessary |
| **Copper coils (IUD)** and **copper chain** | | | |
| **Copper coil IUD** (p. 50) | › between € 120 and € 300, depending on the model<br>› counseling and insertion by gynecologist included in price, but not later ultrasound controls | › copper in coil reduces the motility and fertility of sperm cells<br>› prevents the fertilized egg from lodging in the lining of the uterus | › must be inserted into the uterus by a gynecologist<br>› depending on the model, may stay in place for between 3 and 10 years |
| **Copper chain** (p. 53) | › ca. € 200–350<br>› counseling and insertion by gynecologist included in price, but not later ultrasound controls | › functions like the IUD | › must be inserted and fixed into uterus lining by a gynecologist<br>› effective for up to 5 years |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › must be used only when necessary<br>› no hormonal action<br>› inexpensive<br>› no regular doctor visits necessary | › practice necessary | › under ideal conditions: 6–14%<br>› under typical conditions: 12–18% |
| › must be used only when necessary<br>› no hormonal action<br>› inexpensive<br>› can be left in place for up to 48 hours<br>› no regular doctor visits necessary | › practice necessary<br>› cap may slip off of cervix during intercourse | › under ideal conditions: 18%<br>› under typical conditions: 22% |
| | | |
| › very reliable protection<br>› once in position no need to think about contraception<br>› no hormonal action<br>› natural menstrual cycle is not disrupted | › often strong period bleeding, sometimes increased menstrual cramps<br>› coil may sometimes slip or be expelled<br>› initially greater risk of infection of uterus and ovaries | › under ideal and under typical conditions: 0.4–1.5% |
| › all benefits of the copper coil IUD | › more difficult to insert than the copper coil IUD<br>› more frequently expelled in first months than copper coil IUD, thereafter seldom<br>› otherwise same side effects and risks of copper coil IUD | › under ideal and typical conditions: 0.1–0.5% |

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **Hormone IUD** (p. 55) | › ca. € 250–400<br>› counseling and insertion by gynecologist included in price, but not later ultrasound controls | › releases gestagen to the lining of the uterus<br>› prevents the sperm cells from entering the uterus<br>› reduces the motility and fertility of sperm cells<br>› prevents the fertilized egg from lodging in the lining of the uterus<br>› period is weaker and sometimes completely absent | › must be inserted by a gynecologist<br>› depending on model may stay in place for 3 to 5 years |
| **Natural family** planning | | | |
| **Symptothermal method** (p. 57) | › only costs for training course | › determination of fertile and infertile days by measuring basal temperature and observation of consistency of cervical mucous<br>› (unprotected) intercourse possible only on infertile days | › daily recording of basal temperature and state of cervical mucous necessary<br>› proper interpretation of results must be learned (course, counseling center, book) |
| **Sterilization** | | | |
| **Sterilization in male** (p. 64) | › ca. € 450–500 | › prevents sperm cells from mixing with semen | › outpatient operation under local or general anesthesia<br>› seminal ducts are cut and the loose ends sealed off |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › reliable protection<br>› once in position no need to think about contraception<br>› only very small amounts of hormone enter the body | › initial often bleeding<br>› irregular periods<br>› rare hormone-caused side effects: headaches, tenderness/tension in breasts, nervousness, loss of libido, depressive mood, acne<br>› in rare cases the hormone IUD can slip or be expelled<br>› initially increased risk for infection of uterus and ovaries | › under ideal and typical conditions: 0–0.5% |
| | | |
| › nearly no costs involved<br>› noninvasive<br>› provides opportunity for physical self-exploration and self-observation<br>› also suitable when wanting to get pregnant | › long learning period necessary<br>› other contraceptive methods necessary on fertile days or only sexual practices without risk of pregnancy | › under ideal conditions: 0.4%<br>› under typical conditions: 1.8–2.6% |
| | | |
| › permanent infertility<br>› after waiting period of a few weeks and control examinations no further contraception necessary<br>› contraceptive method for males | › effect is permanent; refertilization is difficult, expensive and uncertain<br>› rare complications such as bruising or infections | › under ideal conditions: 0.1%<br>› under typical conditions: 0.15% |

| METHOD | COSTS (as of April 2019) | EFFECTS | USE |
|---|---|---|---|
| **Sterilization in female** (p. 65) | › between € 600 and € 1000 | › prevents sperm cells and eggs from meeting up | › operation to seal off or cut Fallopian tubes<br>› outpatient or inpatient procedure possible, under general anesthesia |
| **Emergency** contraception | | | |
| **"Morning-after pill"** (p. 78) | › compounds with levonorgestrel ca. € 16<br>› compounds with ulipristal acetate ca. € 35<br>› prices may vary as there are no stipulated prices | › suppresses or delays ovulation until viable sperm cells are no longer present in the uterus<br>› does not abort an existing pregnancy | › must be taken as soon as possible, but no later than 3 days (levonorgestrel) or 5 days (ulipristal acetate) after unprotected intercourse<br>› available in pharmacy without prescription |
| **"Morning-after IUD" (copper coil or copper chain)** (p. 81) | › IUD: ca. € 120 to € 300<br>› copper chain: € 200 to € 350<br>› cost of insertion included in these prices | › can be inserted up to 5 days after unprotected intercourse<br>› prevents the fertilized egg from lodging in the lining of the uterus | › must be inserted into uterus by gynecologist<br>› must remain in uterus at least until next menstrual period |

| BENEFITS | DISADVANTAGES | SAFETY/FAILURE RATE (p. 25) |
|---|---|---|
| › permanent infertility<br>› after operation no further contraception necessary<br>› neither hormone production nor libido generally affected | › effect is permanent; refertilization is difficult, expensive and uncertain<br>› small risk of bleeding, injury to blood vessels, nerves and inner organs or infection | › under ideal and typical conditions: 0–0.5% |
| | | |
| › emergency means of preventing unwanted pregnancy after unprotected intercourse or contraceptive accident | › possible side effects: vertigo, headaches, nausea, vomiting, abdominal pains, tenderness/tension in breasts, bleeding<br>› period may shift and comes either earlier or later than usual | › does not prevent pregnancy in every case |
| › emergency means of preventing unwanted pregnancy after unprotected intercourse or contraceptive accident<br>› good choice if the IUD is to be further used as means of birth control | › same disadvantages as copper coil IUD | › reliable protection, better than "morning-after pill" |

# **Check**list

With the following checklist we would like to help you sort out your thoughts and determine what is most important to you about the topic of contraception. This should in turn help you to find the right contraceptive for your own particular situation.

The checklist begins with some general questions, then turns to questions peculiar to women or men.

Birth control concerns both partners in a relationship, though the questions that crop up may vary.

At the end there is a space to write down three criteria that any contraceptive must fulfill for your purposes.

You can also take this entire checklist or a summary thereof to your next visit to your doctor, gynecologist or counseling center as a basis for discussion. The more informed you are going into such a consultation, the higher the chance that you will find the appropriate method of contraception for your needs.

**It is your body and your decision!**

# **Important questions**
concerning birth control:

| | | |
|---|---|---|
| Are you presently in a stable partnership? | ☐ Yes | ☐ No |
| Do you have sex with multiple partners? | ☐ Yes | ☐ No |
| Do you only rarely have intercourse with a person of the opposite sex? | ☐ Yes | ☐ No |
| Have you already had experience with contraceptives? | ☐ Yes | ☐ No |
| Should the chosen method of contraception be effective over the long term? | ☐ Yes | ☐ No |
| Are you in need of birth control for only a short period of time? | ☐ Yes | ☐ No |
| Is it important to you to be able to stop taking contraceptives on short notice? | ☐ Yes | ☐ No |
| Is it important to you to not have to worry about contraception? | ☐ Yes | ☐ No |

How important is spontaneity to you with regard to sex?

☐ Very important ☐ Less important ☐ Unimportant

| | | |
|---|---|---|
| Can you talk freely with your partner about birth control? | ☐ Yes | ☐ No |
| Are the costs involved with contraception a problem for you? | ☐ Yes | ☐ No |

## **Questions** for women

| | | |
|---|---|---|
| Is it important to you that you have your monthly period? | Yes | No |
| Would you prefer a lighter period or even none at all? | Yes | No |
| Are you looking for a method that has few effects on your body? | Yes | No |
| Is it easy for you to think about contraception before every act of intercourse? | Yes | No |
| Is it unpleasant for you to touch your own vagina? | Yes | No |
| Are you afflicted with any illnesses, physical impairments or health risks that must be taken into consideration? | Yes | No |
| Do you regularly take any medicines? | Yes | No |
| Are you interested in closely observing the signs of fertility in your body? | Yes | No |

## **Questions** for men

| | | |
|---|---|---|
| Would you prefer to have control of contraception yourself? | Yes | No |
| Can you or would you rather leave questions of contraception to your partner? | Yes | No |
| Would you like to have (further) children? | Yes | No |
| Would your partner like to have (further) children? | Yes | No |
| Is it important to you to participate in the choice of contraceptive method? | Yes | No |

*Cut here*

## **The three most important things** for me are:

1. _____

2. _____

3. _____

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**Managing editor:** Anke Erath
**Expert consultants:** Helga Seyler, Familienplanungszentrum Hamburg, Dr. Claudia Schumann, Deutsche Gesellschaft für psychosomatische Frauenheilkunde und Geburtshilfe, Dr. Beate Ziegeler, Bundesinstitut für Arzneimittel und Medizinprodukte

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