

View this article online at: patient.info/bacterial-vaginosis

Bacterial Vaginosis

Bacterial vaginosis (BV) is a very common condition caused by an overgrowth of normal germs (bacteria) in the vagina. This causes a change in the normal vaginal discharge, which may become more noticeable or develop a fishy smell.

Having a discharge from your vagina can be embarrassing and upsetting. However, it's a very common symptom, and most of the time it doesn't mean you have a [sexually transmitted infection \(STI\)](#). In women who are having periods, bacterial vaginosis (BV) is the most common cause of a vaginal discharge.

What is bacterial vaginosis?

BV is a disturbance in the mix of bacteria in your vagina. Normally, we have a healthy mix of millions of 'friendly' germs (bacteria) in our bodies, including in the vagina - we rely on them being there and they are a part of what keeps us healthy. In BV, the balance of vaginal bacteria is altered. The type of bacteria called anaerobic bacteria (bacteria that thrive in an airless environment) increase in number, whilst another type, called lactobacilli, dies off. This disturbance in the bacteria makes the inside of the vagina slightly less acidic than usual. This slight reduction in acidity then encourages the growth of more anaerobic bacteria and fewer lactobacilli.

Although the changes of BV don't usually cause pain or itching, they do tend to cause a discharge which can smell stronger than usual. Sometimes it smells 'fishy', particularly after sexual intercourse. It can be watery and greyish in colour. This can be distressing and make women feel unclean. Some women then try to douche or wash themselves with soaps or perfumes - but this will only disturb the vagina more (because soaps are too alkaline for the inside of the vagina) and will make the problem worse.

How common is bacterial vaginosis?

It is not exactly known how common BV is. It is often so mild that women may not go to the doctor. It may be that as many as about 1 in 3 women have BV at some time in their lives.

How can you get bacterial vaginosis?

Bacterial vaginosis is a common condition of the vagina caused by an overgrowth of various germs. It is not one infection caused by one type of germ.

The vagina normally has a mix of germs (bacteria), including anaerobic bacteria and lactobacilli, but in bacterial vaginosis (BV) the balance changes. As a result, the anaerobic bacteria multiply and thrive much more than usual. In other words, they are bacteria which are normally present, just not in the same balance.

BV is *not* caused by poor hygiene. In fact, excessive washing of the vagina (particularly if strong soaps or perfumed deodorants are used) may alter the normal balance of bacteria in the vagina even more, which may make BV more likely to develop or worsen.

We don't really know what triggers the bacterial balance to 'swing' away from normal. We know that it's more likely to happen if something disturbs the acidity of the vagina, (acidity which is CAUSED by the normal bacteria), which then allows the anaerobic bacteria to overgrow.

What is normal vaginal acidity?

Acidity is measured on the pH scale in which lower numbers are more acidic and higher numbers are more alkaline. The normal pH of the vagina is 3.8-4.5.

As soon as the pH increases above 4.5, anaerobic bacteria start to overgrow and lactobacilli (which maintain the acidity) start to die off.

What can cause bacterial vaginosis?

You are more likely to get BV:

- If you are sexually active. (Women who have never had sex can get BV too. However, it is more common in women who are having sex. You can have BV whether you have sex with women or with men.)
- If you have recently changed your sexual partner. Frequent changes of sexual partner, or having more than one regular partner, increase the likelihood of BV further.
- If you have a past history of sexually transmitted infections (STIs).
- If you smoke.
- If you have a copper coil for contraception - an [intrauterine contraceptive device \(IUCD\)](#).

- If your family has Afro-Caribbean origins.
- If you use bubble bath.
- If you have prolonged or heavy periods.
- Following hormonal changes. In some women BV seems to be triggered by the hormonal changes of puberty, pregnancy or the menopause. These are all conditions of changing vaginal acidity.
- Following courses of antibiotics. Courses of antibiotics tend to kill off all our good bacteria (although **thrush**, also called candida, is a more common complication after courses of antibiotic).

Other conditions which can upset vaginal pH or lactobacillus health, and which might be expected to increase the risk of BV include:

- Use of sex toys.
- Too much washing around the vagina - once a day is enough.
- Use of perfumed lubricants during intercourse.
- Wearing thongs or nylon tights for long periods.
- Prolonged or heavy periods.

You are less likely to get BV if:

- You use the **combined oral contraceptive (COC) pill**.
- Your partner has had a **circumcision**.
- You use condoms (which protect the vagina from the alkaline semen).
- You have showers, not baths.

Is bacterial vaginosis sexually transmitted?

No - BV can affect any woman, including those who do not have (or who have never had) sex. However, BV is more common amongst sexually active women than amongst non-sexually active women.

A woman can't 'catch' BV from intercourse with a man, but BV is more likely to develop after a change in sexual partner, as - for reasons we don't really understand - this can affect the balance of normal germs (bacteria) in the vagina.

Women who have sex with other women can pass each other the condition. This is probably because the anaerobic bacteria on the body of the woman with BV have become particularly good at overwhelming the lactobacilli, and are able to take the opportunity to spread further.

Can men get bacterial vaginosis?

Men do not get BV. BV is unique to the vagina. There is no equivalent place on a man where lactobacilli and anaerobic bacteria are attempting to live in balance in order to produce an acidic environment.

Does my partner need to be treated for bacterial vaginosis?

If you have BV and your partner is a man, he does not need to be treated. If your sexual partner is a woman she may need treatment, particularly if your BV is persistent or recurrent.

What is bacterial vaginosis like?

The main symptom of bacterial vaginosis (BV) is a vaginal discharge. BV is one of the most common causes of vaginal discharge in women of childbearing age. Often, bacterial vaginosis (BV) causes no symptoms. This is true in about half of the women who have the condition. This may be because the bacterial disturbance is only mild.

When BV causes symptoms, this is usually a change in vaginal discharge. Some women will also notice the characteristic smell.

- The discharge is often white-grey in colour and often has a fishy smell.
- The smell may be more noticeable during sex.
- The discharge tends to be heaviest just after a period, or after sex.
- The discharge does not usually cause itch or soreness around the vagina and vulva.

Note: BV is not the *only* cause of a vaginal discharge. Various conditions can cause discharge, such as thrush (infection by overgrowth of a yeast called candida, which normally lives in the bowel) and sexually transmitted infections (STIs).

- Thrush typically causes a thickish white discharge which tends to cause itching and soreness around the vagina and vulva. [See separate leaflet called Vaginal Thrush \(Yeast Infection\) for more details.](#)
- **STIs**, such as chlamydia, may also cause vaginal discharge. [See separate leaflet called Genital Chlamydia for more details.](#)

Can bacterial vaginosis cause vaginal bleeding?

BV should not cause vaginal bleeding, although it is often more noticeable at the time of a period.

If you have unusual bleeding between periods or after intercourse, BV will not be the reason and you should consult your doctor to look for another cause.

Can bacterial vaginosis cause pain?

BV can sometimes cause pain - usually on intercourse. Some women also describe dull pains low down in their tummy. These are more suggestive of conditions affecting the womb (uterus) itself, such as [pelvic inflammatory disease](#) or [endometriosis](#).

What are the risks of bacterial vaginosis?

BV and surgery

If you have untreated BV, the chance of developing an infection of the womb is slightly higher following certain operations (such as [termination of pregnancy](#) or a [vaginal hysterectomy](#)). You will normally be offered treatment for the BV in these cases.

BV and other infections

Untreated BV may slightly increase the risk of you acquiring HIV infection if you have sex with someone who is infected with HIV. This is probably because the normal acidity of the vagina helps protect against STIs.

If you have HIV and BV together then you are slightly more likely to pass on the HIV.

Women with untreated BV may be at a slightly increased risk of developing pelvic inflammatory disease. See separate leaflets called [HIV and AIDS](#) and [Pelvic Inflammatory Disease](#) for more details.

Can bacterial vaginosis affect my pregnancy?

Yes, BV can affect pregnancy. If you have untreated BV during pregnancy, you have a slightly increased risk of developing some complications, including:

- [Early labour](#).
- [Miscarriage](#).
- Having your baby early (preterm birth).
- Having a low-birth-weight baby.
- Developing an infection of the womb after childbirth (a condition known as postpartum endometritis).

For this reason, if you develop BV in pregnancy you will usually be offered treatment. This also means that if you develop an unusual or offensive discharge in pregnancy, you should seek medical advice early.

Can bacterial vaginosis cause infertility?

BV is more common in women with infertility. In women with BV who are undergoing IVF treatment, the presence of BV lowers the success rates. The studies which found these effects focused on women who were already known to have fertility problems, to see if they were more likely than other women to have BV.

This doesn't mean that if you have BV, you will have fertility problems: BV is extremely common (possibly a third of all women of menstrual age) and fertility problems which result in a need for in vitro fertilisation (IVF) are not common. This suggests that the chances that BV will affect your fertility are very low. Even so, if you are planning to conceive in the future and you think you may have BV, you should see your doctor and discuss the best options for treatment.

Is there a test for bacterial vaginosis?

If you are in a stable, long-term relationship, your doctor or nurse may be happy to diagnose BV just by its typical symptoms.

The typical discharge and its characteristic fishy smell make bacterial vaginosis (BV) likely. When your doctor examines you they may be able to identify BV from the appearance of the discharge.

There are some tests that can help to confirm the diagnosis. Also, if you are pregnant, it is important to make an accurate diagnosis of any unusual vaginal discharge so that any infection can be treated effectively. The tests include:

Testing the acid level of your vagina

The discharge of BV has a typical pH level (acidity level) which is higher than normal vaginal pH.

pH is measured on a scale from 0 (extreme acidity) to 14 (extremely alkaline). Pure water, which is neutral (neither acid nor alkaline) has a pH of 7.

- The normal pH of the vagina is 3.8-4.5.

- As soon as the pH increases above 4.5, anaerobic bacteria start to overgrow and lactobacilli (which maintain the acidity) start to die off.

Your doctor or nurse may suggest that they take a sample of your discharge and test it with some pH paper. You can buy a kit from a pharmacy to do this test yourself at home.

Taking a sample

To confirm the diagnosis of BV, your doctor or nurse may suggest that a sample (a swab) of your discharge be taken from your vagina and sent to the laboratory for examination and testing. The various types of germs (bacteria) that overgrow in BV are easily seen under the microscope. Your doctor or nurse may suggest that they take more than one swab from your vagina to rule out other causes of vaginal discharge.

What is the treatment for bacterial vaginosis?

There are various different treatments for bacterial vaginosis (BV). There are also some things which you should avoid doing, which may help the problem to resolve itself.

These include avoiding the use of douches, vaginal deodorants, bath additives and harsh soaps. Refraining from intercourse for a couple of weeks, or using a condom and a water-based lubricant, can be helpful.

When should I get treatment for bacterial vaginosis?

The body is often very good at getting back its own balance. The disruption in the balance of vaginal germs (bacteria) that causes BV may correct naturally, with time. So, if you have no symptoms or only mild symptoms, you may not need any treatment, particularly if you take some of the general healthy steps above?

You normally need treatment for BV if it is causing symptoms, or if the characteristic smell is noticeable to you. If you are pregnant, trying to become pregnant, or about to have a gynaecological procedure then you may be advised to get treatment for BV.

Pregnancy

If you are pregnant and you are found to have BV then you will usually be offered **antibiotic treatment** with oral metronidazole (see below).

If you are trying to conceive and you think you may have BV, it is a good idea to try to eradicate the BV through natural methods or treatment prior to conceiving. If you have symptoms then you should discuss having antibiotic treatment with your doctor.

Termination of pregnancy

If you are found to have BV and are undergoing a termination of pregnancy, treatment with antibiotics may be advised even if you do not have any symptoms. This is because there is otherwise a risk of BV causing infection of the womb (uterus) or pelvis after the procedure. This could lead to later fertility problems.

Gynaecological procedures

Antibiotics are not usually recommended for women with BV (and no symptoms) who are about to undergo 'minor' gynaecological procedures such as an endometrial biopsy - a biopsy of the lining of the womb. In fact women having these procedures are in any case not usually tested for BV, so they would not know they had it.

Women having vaginal hysterectomy are given antibiotics prior to the procedure, even if they don't have BV, in order to lower the risk of postoperative infection. These antibiotics will also wipe out any BV-causing bacteria.

What are the treatments for bacterial vaginosis?

There are a variety of possible treatments for BV.

Antibiotics for bacterial vaginosis

Oral antibiotics are the first-choice treatment in pregnant women with BV.

Metronidazole tablets

A full course of **metronidazole tablets** is the common treatment. Metronidazole is an antibiotic. This clears BV in most cases. It is important to read the leaflet that comes with these tablets for the full list of possible side-effects and cautions. The main points to note about metronidazole include:

- The usual dose is 400-500 mg twice a day for 5-7 days. A single dose of 2 grams of metronidazole is an alternative, although this may be less effective and may cause more side-effects. (**Note:** this single dose is not recommended if you are pregnant.) It is important to finish the course you have been prescribed, and not to miss any tablets.
- Some people feel sick or may be sick (vomit) when they take metronidazole. This is less likely to occur if you take the tablets straight after food. A metallic taste is also a common side-effect.
- Do not drink any alcohol while taking metronidazole, nor for 48 hours after stopping treatment. The interaction of metronidazole with alcohol can cause severe sickness and vomiting, and may also cause flushing and an increased pulse rate.

- Metronidazole can get into breast milk in small amounts but will not harm your baby, although it may make the milk taste different. The manufacturer recommends that if you are breastfeeding you should take the 5- to 7-day lower dose course of metronidazole rather than the single large dose.

Alternative antibiotic treatments

Tinidazole tablets may be offered if you know you are intolerant of metronidazole. Tinidazole is a similar antibiotic and you need to take 2 g once a day for two days, or 1 g once a day for five days. It has the same interaction with alcohol that is seen with metronidazole, meaning that alcohol should not be consumed whilst you are taking it, nor for 48 hours afterwards. Tinidazole is not recommended in pregnancy.

Metronidazole vaginal gel or **clindamycin vaginal cream** placed inside the vagina can be used if you prefer this type of treatment, or if you experience unpleasant side-effects with metronidazole tablets. These treatments are believed to be almost as effective as antibiotics by mouth.

Note: as with metronidazole tablets, you should avoid alcohol while using metronidazole gel and for at least 48 hours after stopping treatment, although the tendency of the gels to make you feel sick are not as noticeable as for the tablets.

Vaginal creams and gels can weaken latex condoms and diaphragms. Therefore, during treatment and for five days after treatment with clindamycin vaginal cream, do not rely on condoms or diaphragms to protect against pregnancy and sexually transmitted infections (STIs).

Other antibiotic tablets taken by mouth are also sometimes used to treat BV. These are **clindamycin tablets** or **tinidazole tablets**.

Is yoghurt an effective treatment for bacterial vaginosis?

Some women with BV say that things settle more quickly and symptoms are eased by applying a thin coat of plain, live yogurt to the outside of the vagina daily, and by applying a small amount of plain live yoghurt on a tampon for internal use before bed.

The evidence that live yoghurt is helpful in treating or preventing BV is mixed, with some trials saying that it is helpful and some saying that it is not helpful. Overall specialists feel that there is not enough evidence in its favour to suggest it over other treatments.

Are vaginal acetic and lactic acid treatments an effective treatment for bacterial vaginosis?

Treatment with acetic and lactic acid gels aims to keep the vaginal pH at less than 4.5, to encourage lactobacilli to grow, and to discourage anaerobic bacteria from growing. Some studies have suggested that long-term use of vaginal acidifiers of this type reduces recurrences of BV. However, other studies suggest that this treatment, whilst harmless, is not effective.

Are lactobacillus tablets an effective treatment for bacterial vaginosis?

Lactobacillus suppositories and oral tablets are sold in some health food shops, for use in BV.

Orally consumed probiotics are believed to reach the vagina via the bowel. There is some evidence that this can be helpful in treatment and in prevention of BV. These studies suggest treatment needs to continue for at least two months. Other studies don't show a clear benefit. Overall, specialists feel that there is not enough evidence in its favour to suggest it over other treatments.

Intravaginal lactobacillus treatment seems as though it ought to be an obvious solution - why not put the right bacteria where they are meant to go? However, results of studies on vaginal treatments with lactobacilli are also mixed, with some studies suggesting this treatment is effective and others not.

Should my partner be treated for bacterial vaginosis?

There is no evidence that treating a male sexual partner prevents his female sexual partner from developing BV. One small trial looked at whether using a sterilising alcohol gel on the penis protected their partners against BV - but the gel appeared to make BV more, rather than less, common in the women.

If you have a female partner then it does appear that treating her for BV at the same time as you - even if she doesn't have symptoms - will prevent recurrence (in either of you).

Do I need a test to find out if my bacterial vaginosis is cured?

Women who are not pregnant

After treatment, you do not need any further tests to ensure that BV has cleared (a test of cure) provided that your symptoms have gone.

Women who are pregnant

If you are pregnant, it is suggested that you do have a test one month after treatment to ensure that BV is no longer present. A sample (a swab) of the discharge in your vagina is taken. This is tested to check you no longer have BV.

What is the treatment for persisting bacterial vaginosis?

If you have persistent BV (ie it does not settle down with the first treatment you try) then your doctor may want to take further vaginal swabs to check whether there is another cause of the discharge. They will usually suggest that you use the seven-day course of metronidazole if you have not had this before.

Another treatment which may be tried is using metronidazole gel twice a week for up to six months.

If you have a persistent BV infection which does not respond to treatment, and you have an intrauterine contraceptive device (IUCD) then your doctor may advise removing the device until things settle down, as there is some evidence that IUCDs can contribute to persistent BV.

If you have persistent BV and a same-sex partner then treating both of you at the same time is likely to be helpful in preventing persistence and recurrence - even if your partner does not have symptoms.

Can bacterial vaginosis be prevented?

The following are thought to help prevent some episodes of bacterial vaginosis (BV). The logic behind these tips is to try not to upset the normal balance of germs (bacteria) in the vagina:

- Do not push water into your vagina to clean it (douching). The vagina needs no specific cleaning.
- Do not add bath oils, antiseptics, scented soaps, perfumed bubble bath, shampoos, etc, to bath water.
- Do not use strong detergents to wash your underwear.
- Do not wash around your vagina and vulva too often. Once a day is usually enough, using gentle soaps and water.
- Don't use perfumed 'intimate hygiene' products.
- Using a condom and/or a water-based lubricant during intercourse may help protect you.
- Avoid using sex toys inside the vagina.
- Avoid thongs and tight nylon tights.
- Have showers rather than baths.
- Lighter periods seem to make BV less likely to return, so if you have heavy periods and were considering seeking treatment, this might be another reason to do so.

Will I get bacterial vaginosis again?

BV often recurs, usually within a few months of treatment - although if any of the behaviours which can trigger it (such as using douches) apply to you then it may be less likely to recur if you avoid these things.

BV often returns after it has been treated. No good way has been found yet of preventing this from happening.

If you keep getting BV symptoms, your doctor will do some tests to be absolutely sure you have got BV and not any other infection. If it turns out to be definitely BV, a different antibiotic to the one you have taken previously may be tried. Occasionally regular preventative use of an antibiotic vaginal gel may be advised.

If you are using an [intrauterine contraceptive device \(IUCD\)](#) for contraception, it may be advised that you consider having this removed.

What can I do about recurrent bacterial vaginosis?

If your symptoms come back and you did not have a test using a sample (a swab) of your vaginal discharge taken initially, your doctor or nurse may suggest that they take swab tests now. This is to confirm that it is BV causing your symptoms.

BV may return if you did not complete your course of antibiotics. However, even if you have completed a full course of antibiotics, BV returns within three months in many women. If it does come back, a repeat course of antibiotics will usually be successful. A small number of women have repeated episodes of BV and need repeated courses of antibiotics.

If you have a copper coil for contraception - an IUCD - and have recurrent BV, your doctor or nurse may suggest that they remove your IUCD to see if this helps to improve your symptoms. You will need to consider alternative contraception measures.

If you have a same-sex partner then, even if she has no symptoms, treating both of you at the same time may reduce recurrence.

You should also take particular notice of the advice not to use douches, bath additives and vaginal deodorants. Long-term use of metronidazole gel is sometimes advised. Specialist guidelines in the USA recommend using twice-weekly for up to six months. UK specialist guidelines are less certain on the frequency and duration of preventative treatment, and your doctor may want to talk with a specialist for advice on this.

Further reading & references

- [Management of bacterial vaginosis](#); British Association for Sexual Health and HIV (May 2012)
- [Sexually Transmitted Infections in Primary Care](#); Royal College of General Practitioners and British Association for Sexual Health and HIV (Apr 2013)
- [Bacterial vaginosis](#); NICE CKS, July 2014 (UK access only)

- [Vaginal discharge](#); NICE CKS, May 2013 (UK access only)
- [Brotman RM, Ghanem KG, Klebanoff MA, et al](#); The effect of vaginal douching cessation on bacterial vaginosis: a pilot study. *Am J Obstet Gynecol.* 2008 Jun;198(6):628.e1-7. Epub 2008 Mar 4.
- [McDonald HM, Brocklehurst P, Gordon A](#); Antibiotics for treating bacterial vaginosis in pregnancy. *Cochrane Database Syst Rev.* 2007 Jan 24; (1):CD000262.

Disclaimer: This article is for information only and should not be used for the diagnosis or treatment of medical conditions. Patient Platform Limited has used all reasonable care in compiling the information but makes no warranty as to its accuracy. Consult a doctor or other healthcare professional for diagnosis and treatment of medical conditions. For details see our [conditions](#).

Author: Dr Mary Lowth	Peer Reviewer: Dr Louise Newson	
Document ID: 4203 (v42)	Last Checked: 14/12/2017	Next Review: 13/12/2020

View this article online at: patient.info/bacterial-vaginosis

Discuss Bacterial Vaginosis and find more trusted resources at [Patient](#).

Ask your doctor about Patient Access

- 🔍 Book appointments
- 🔍 Order repeat prescriptions
- 🔍 View your medical record
- 🔍 Create a personal health record (iOS only)



Simple, quick and convenient.
Visit patient.info/patient-access
or search 'Patient Access'