
UNDERSTANDING VAGINAL HEALTH

by Robin Barnett

The vagina is usually a wonderfully efficient, self-maintaining, dynamic environment. Before the advent of the inexpensive, plastic speculum it was clouded in mystery and thought of as accessible only to the medical profession. The speculum allows us to examine our own vaginas. We can use our fingers and sense of smell to examine our own secretions.

Understanding how our body, or in this case our vagina, defends itself against infection can help us stay healthy. Sometimes vaginal infections can be transmitted through sexual and intimate contact and other times they arise spontaneously because of imbalances in the vagina. It is possible for us to figure out what is happening in our vagina and to cut down on or eliminate recurring vaginal infections.

The vagina is a cavity in the body much like the mouth cavity. They are both open to the outside air and have similar mucous membrane linings that stay moist from secretions. Neither is sterile. Several protective systems keep the vagina healthy and clean. The most important of these are the acid balance and the cervical mucus.

A healthy vagina is usually slightly acidic (it registers about four to five on the pH scale that runs from one, most acidic, to 14, most alkaline). Acidity prevents many different kinds of bothersome bacteria and other microorganisms from flourishing.

"Friendly" bacteria called lactobacilli or Doderlein's bacilli keep the vagina acidic. If it weren't for the lactobacilli, the vagina might always be a sugary, alkaline breeding ground for infections. The cells of the vaginal wall store sugar in the form of glucose; droplets of fluid form on the walls of the vagina and mix with dead cells which are sloughed off, releasing the glucose. Bacteria, fungi and protozoa (microscopic one-celled animals) love to feed off that sugar. The lactobacilli thrive on sugar, too, but unlike these other organisms, they convert the sugar into a weak acid called lactic acid. This acidity kills off many of the "bad" organisms.

Another important protective system is the cervical mucus. The cervix is the base of the uterus that extends into the vagina. The endocervical canal leads from the cervical opening (os) up into the uterus. Glands located in this canal secrete mucus. This mucus is thicker than the vaginal secretions and also bathes the vaginal walls, washing away dead cells and debris. It helps moisten and lubricate the vaginal walls, thereby protecting them from damage. And it "plugs" the cervical opening to defend the sterile uterus from the invasion by microorganisms.

If you check regularly you can get to know your own mucus and what is normal for you. Normal vaginal discharge has a mild, pleasant odor and fluctuates between a clear egg-white consistency and a milky white paste, depending on where you are in your menstrual cycle.

The cervix and the amount of mucous secretions are affected by hormonal changes in the menstrual cycle. However, some women have heavy secretions throughout their cycle and other women say they have very little secretions at any time of the month. Generally mucus right around the time of ovulation has been described as being like egg whites—clear, very stretchy and slippery. Not all women get this type of mucus at mid-cycle. For some women it will be more like smooth hand lotion, with a slippery feeling of lubrication.

Even though the ecology of the vagina is constantly changing, the arrival of a new microorganism, even sexually transmitted, isn't enough to start an infection. There are many conditions that can make your vagina more—or less—susceptible. Some of the following might be examples of why some women get them or have recurrences.

Cervical mucus is slightly more alkaline when you're most fertile, right before ovulation. And during menstruation your vagina is at its most alkaline because the blood that flows through the vagina is a sweet, alkaline medium. The menstrual flow can be a cleaning process for the vagina because the blood can bathe the vagina as it flows. Or it could be a sugary food for infections. Also right before or right after menstruation the vagina may be drier than at other times because the cervical mucus has formed a thick plug at the opening of the cervix. At this time in a woman's cycle, the mucus is not bathing and lubricating the vaginal walls. Dead cells from the vaginal walls will not be washed out by the mucus, but will stay and can provide sugars to feed infections. Some women find that symptoms of infections escalate during or after their periods.

Pregnancy is also a time when women may tend to suffer from infections. Hormonal changes are causing more sugar to be stored in the vaginal walls, increasing alkalinity. Also some women develop abnormal Pap smear results while pregnant because of the changes in the cells. Hormones, like the Pill, can also have similar effects. Women who take them may be prone to cervical inflammations and vaginal infections.

During and after menopause is another period of hormonal changes. There are lowered levels of estrogen and thus lower levels of glucose in the cells of the vagina. There may not be enough glucose in those cells to support lactobacilli and maintain an acidic vaginal environment.

Antibiotics are often prescribed for vaginal infections. The problem is that in the process of wiping out the bad bacteria, the antibiotics also kill off the good bacteria, the lactobacilli. So after finishing the antibiotics, the vagina may be too alkaline and harbour infection.

The vagina is also influenced by the presence of semen, although the effect is transitory since most of it runs out immediately. Semen has an alkaline pH and introduces other living organisms, including sperm, into the vagina.

The natural ecology of the vagina can be changed by any kind of condition or foreign object which gets into the vagina. Douching, for example, dries out the mucous membrane lining and can irritate or damage the vaginal walls and upset the acid balance. The vaginal walls can also get irritated in reaction to the chemicals that go into perfumed, commercially prepared douches. Frequent douching can also erode the mucous plug that acts as the protective barrier to the uterus.

IUD strings may cause an inflammation of the cervix where the string lies on the cervix. The string can act as a wick for bacteria to travel on, descending from the cervix into the vagina or ascending from the vagina to the uterus.

Anything that scratches the vaginal walls can cause trouble by providing bacteria or viruses with safe harbour and feeding grounds. You can scratch yourself with anything from a fingernail to a plastic tampon applicator.

No tampon should be left in too long because it can breed bacteria. On the other hand, changing tampons too often may cause irritation. Tampons can, especially super absorbent types, absorb the mucous lining. This robs the vaginal walls of the protective moisture they need and interferes with the washing process. Also change your tampon immediately after swimming in a chlorinated pool or whirlpool. Tampons absorb the chlorine which kills all bacteria in the vagina, including the lactobacilli. At the same time the sweet menstrual fluid could feed an infection.

The vagina and cervix can also affect each other. Or, one may indicate that there is something happening with the other. A red cervix can indicate that a vaginal infection is present and is irritating the cervix. The effect that a vaginal infection can have on the cervix is not always detected by the naked eye, but can be seen by looking at a Pap smear through a microscope. Some cervical abnormalities may mean a predisposition to certain infections.

Redness on the cervix is a frequent, and usually harmless phenomenon that can be caused by a variety of things. A woman can watch her cervix regularly to determine if the redness is temporary or related to her menstrual cycle. If it is cyclical the redness will disappear after a few days. If the redness persists, it may mean a number of things.

A red area around the os is often just the lining of the cervical canal. The lining, which is made up of columnar cells, sometimes extends out onto the face of the pink cervix which is made up of squamous cells, forming an inner red circle. The rim where the two types of cells meet is similar to the place where the lips of the mouth meet the facial skin.

Redness in conjunction with an unusual discharge, spotting or bleeding from the inflamed area of the cervix or pain, may indicate that an infection is present.

Even if redness is not visible on the cervix, an abnormal Pap smear result may indicate an infection was/is present; that a viral (warts, herpes) outbreak occurred; or that a repair process after an infection or irritation was/is in process. Once the problem is identified and cleared up, the abnormal Pap result may return to normal.

Scarring on the cervix from giving birth or from tears which sometimes result from the metal instrument used to hold the cervix steady during an abortion can make a woman more prone to redness on the cervix because the scarred areas on the

cervix provide a place for bacteria to grow. Bacteria could also inflame the glands in the endocervical canal and cause inflammation on the cervix.

Also vigorous vaginal penetration by fingers or penis could irritate the cervix and possibly the vaginal walls. Sexual assault can also be damaging to these areas.

It can be helpful to think of the cervix as a kind of "skin". Just as our skin gets bruised and irritated so can the cervix. Sometimes just as we apply remedies to our skins, we may want to try to apply some to our cervix.

The foods we eat can also affect the vaginal balance. Refined carbohydrates and sugars can increase the level of sugar in the bloodstream as well as make our system more alkaline. Though the link has never been scientifically proven, many women and women's health-care practitioners believe that cutting out sugar cuts down infections. Since the cells in the vaginal wall contain sugar that is released as the cells are sloughed off, it's possible to have an overload of sugar in your system. Diabetes, pregnancy and the Pill also increase the amount of sugar stored. Drinking huge amounts of fruit juices or eating a great deal of fruit can also increase the level of sugar in the bloodstream.

Make sure your diet is balanced. Intake of coffee and alcohol could be depleting your system of B vitamins needed for general health and resistance. Some people link a lack of vitamin A with abnormal cervical cells and mucuous linings. If you take the Pill then you could have a folic acid deficiency which could also mean abnormal cervical cells.

Stress and anxiety and lack of sleep can lower your immunity and may even lower vaginal acidity.

The right clothes can also mean the difference between an organism flourishing or dying. A hot, moist environment encourages infections. So keep yourself as cool and dry as possible. Always wear cotton panties or panties with a cotton crotch and make sure your pants are loose enough to permit the vaginal area to breathe. Avoid tight jeans and synthetic fibers.

Never borrow someone else's towel. Although it's rare, a used warm towel can harbour infections.

Wash your external genital and anal area regularly, especially after having sex (even if it's the next day). Wiping the lips of the vagina is sufficient to cleanse the cavity. Wash with plain water. If you need to use soap, avoid scented soaps and bubble baths, and always rinse yourself well after washing. Avoid washing the anal area before the vaginal area with the same washcloth. Always wipe your anus from front to back so that anal bacteria won't get into the vagina or urethra. Don't vaginally insert anything that's been in your anus without carefully washing it first. Try to make sure that your sexual partners are clean; that they don't have any infections and that they haven't had contact with anyone who has.

