

# THE MEDICAL PRACTICE AT 48 WIMPOLE STREET

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## **An abnormal smear**

You have just been told that your last smear check was abnormal. You may not even have had a chance to discuss things with your GP or practice nurse. You are probably very worried about what is going on and what is likely to happen! We hope to give you all the information you need in this article. The first thing to say is that the overwhelming majority of women who have an abnormal smear **do not** have cancer. However some of these women may have changes in the neck of the womb (cervix) that we call pre-cancer. When we find areas of pre-cancer on the cervix it is normally very easy to get rid of them completely.

### **What is pre-cancer and what does CIN mean?**

Pre-cancerous tissue contains changes that may possibly turn into cancer if left untreated. In the cervix these changes are called 'Cervical Intraepithelial Neoplasia' or CIN for short. This rather long term means that the changes in the cervix are confined to the outermost layer of skin and there has been no spread of disease. There are different grades of CIN according to how severe the changes are, from CIN1 (minor changes) to CIN3 (the most severe changes). The risk of developing cancer is related to the grade of CIN. We know that most cases of CIN1 will go back to normal without any treatment. The risk of CIN1 developing into cancer is very small. However we know from old studies that CIN2 and CIN3 may develop into cancer in some cases. We don't really know the exact risk of CIN2 and CIN3 turning into cancer as it would be unacceptable to observe women without treatment and see what proportion developed a cancer.

### **What causes CIN?**

You may have heard that CIN and cervical cancer is caused by a virus infection with the human papillomavirus (HPV). While it is true that virtually all women with CIN and cervical cancer have had HPV infection, so have a huge number of other people without disease. There are many other factors that contribute to developing CIN. In short, HPV infection is extremely common and very rarely causes CIN or cancer.

### **Are all smear abnormalities the same?**

No. We grade smear abnormalities according to how severe the changes are. The majority of abnormal smears have very minor changes. We refer to these as borderline changes or mild abnormalities. A smaller number of women will have smears with moderate or severe changes. Women with moderate or severe smear abnormalities probably have CIN2 or CIN3 on the cervix. However a large proportion of women with borderline or mild changes in their smears have no disease or very minor abnormalities (CIN1) on the cervix that do not usually need any treatment.

### **What will happen now?**

You should have the chance to discuss your smear abnormality with your GP or practice nurse. If this is the first time your smear has been abnormal, and if the abnormality shows only borderline or mild changes, you will be asked to have a repeat smear in 6 months. The reason for this is that a lot of minor smear abnormalities go back to normal after several months. Further action will only be needed if the repeat smear shows an abnormality. If this is the case your GP will refer you for a detailed examination called colposcopy. If your smear has shown moderate or severe changes, your GP will refer you for colposcopy (even if this is the first time your smear has been abnormal). Whatever the kind of smear abnormality you have, if you are referred for colposcopy you should not have to wait long for the appointment. The vast majority of women referred for colposcopy should be seen within 8 weeks. In some areas of the country the wait may be much shorter than this.

## **What is colposcopy?**

Colposcopy is simply a more detailed look at the cervix. Instead of looking at the cervix with the naked eye (like when your practice nurse or GP took your smear) we use a special microscope to see the changes at high magnification. Don't worry about the sound of this! The microscope stays outside of you. All that goes inside is the speculum, which is the instrument your GP or practice nurse used to see your cervix when taking your smear. Some clinics may be equipped with video equipment so that you can watch the examination if you wish.

## **What can I expect at the colposcopy clinic?**

First of all you will be seen by friendly staff who are dedicated to this clinic. They will understand how you may be worried and will take time to discuss your smear result before the examination. You will be examined on a purpose-built couch. The cervix is viewed using a speculum and then examined with the colposcope at low magnification (4-6X). The doctor or nurse will put a number of different solutions on the cervix and look for changes that indicate CIN.

## **Different techniques used in the colposcopic examination**

### ***Acetic acid colposcopy***

Acetic acid (dilute vinegar) is applied to the cervix using a cotton wool ball or by a spray. Abnormal areas such as CIN will tend to turn white (acetowhite). The exact reason why CIN tissue turns white with acetic acid is not fully understood. Also it important to say that some areas of acetowhiteness do not indicate CIN at all. One of the challenges facing the colposcopist is to decide which areas of acetowhiteness truly represent pre-malignancy and to avoid treating minor conditions.

### ***Schiller's iodine test***

The colposcopist may use another test using an iodine solution. Normal tissue on the outside of the cervix stains dark brown when iodine is applied. On the other hand, pre-malignant and malignant tissue do not stain with iodine. This is Shiller's test. The test may be used following acetic acid colposcopy and is often used before treatment.

### ***Saline colposcopy***

A cotton wool ball soaked in saline (salt water) is applied to the cervix to moisten it and allow the underlying blood vessels to be examined. We use much higher magnification for this method of colposcopy. A green filter is often used to make the blood vessels stand out more clearly. This method of colposcopy can be particularly helpful in complicated cases.

## **Making the diagnosis**

Most colposcopists use a combination of the tests outlined above. If there is an abnormality the colposcopist should be able to grade it CIN1/2/3 according to:

- a. how white the tissue goes after using acetic acid
- b. how quickly the tissue turns white
- c. how smooth or irregular the surface is
- d. the different patterns of the blood vessels under the surface of the cervix

## **How can CIN be treated?**

There are a number of different ways that CIN can be treated. The treatment options available are either to cut it out or destroy it. Cervical cone biopsy has been used since the 1960s. A laser can be used to cut the cone as an alternative to a knife. You may have heard of 'loop treatment' as this is the commonest way of treating CIN today. The full name for the procedure is 'Large Loop Excision of the Transformation Zone' or LLETZ for short. The abnormal area is removed using a wire loop through which an electric current is passed. This can usually be performed under a local anaesthetic. LLETZ is a simple and cheap technique which and gives excellent results. The woman can often be treated at her first clinic visit by using LLETZ to treat areas of CIN2 or CIN3. Destroying CIN (rather than cutting it out) is another treatment option but it is very important to

know what is being treated. For that reason a biopsy is essential if the tissue is to be destroyed. Once the result of the biopsy is known the tissue can be destroyed by freezing, heating, burning and laser vaporisation. All of these techniques with the possible exception of freezing are equally effective as treatment for CIN, and are as effective as the excisional (cutting out) methods.

### **What can I expect after treatment?**

If your treatment was carried out under a local anaesthetic you may notice some period-like cramps as the anaesthetic wears off. If this is the case try taking two 500mg paracetamol tablets to relieve the pain. If the CIN has been treated by LLETZ (loop treatment) you will have a blood-stained vaginal discharge for some time. This usually settles in 2 weeks but may last for up to 4-6 weeks. The discharge should not be heavier than a period and should get progressively lighter. If you are worried that this is not the case, you should have been given the contact number of a person you can call at the clinic.

### **What follow-up is needed?**

If you have had treatment to the cervix, it is important to have a smear check about 6 months later. This is to see that the treatment has been effective. A lot of clinics also invite you for a repeat colposcopy examination at this stage and will take the smear as well. If all is normal at this stage you will simply have more frequent smears for a number of years (depending on the grade of CIN found) before going back on the normal 3 or 5 yearly recall. If any further abnormalities are detected on your smears you will be invited to have a further colposcopy examination.