



## SMOKING AND IBD

### INTRODUCTION

If you have Ulcerative Colitis (UC) or Crohn's Disease – the two main forms of Inflammatory Bowel Disease (IBD) – and are a smoker, you may wonder whether this has an effect on your disease.

The relationship between smoking and IBD is complex. Many studies have shown that people who smoke are more likely to develop Crohn's Disease, and research suggests that smoking increases the severity of the disease. In contrast, smoking appears to decrease the severity of Ulcerative Colitis (UC), although it still carries many other health risks.

This information sheet looks at the evidence for the different effects of smoking on these two conditions, and what it may mean for people with IBD. It also looks at ways to help you give up smoking.

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I have Crohn's Disease and I smoke. I have tried to give it up but I find it really hard as it is part of my daily routine. My consultant always advises me of the detrimental effect it can have on my condition, which does make me think a bit more about giving up.

”

Ann, age 52  
diagnosed with Crohn's Disease in 1995

### SMOKING AND CROHN'S DISEASE

#### How does smoking affect Crohn's Disease?

In numerous studies, half or more of the adults with Crohn's Disease were smokers when they were diagnosed. This suggests that people who smoke are more likely to get Crohn's than those who do not smoke.

Research also suggests that smoking can make Crohn's Disease worse. People with Crohn's who smoke may find that they:

- have more severe symptoms and complications such as strictures and fistulas
- have more flare-ups
- require more steroids, and stronger drugs such as immunosuppressants and biologics. Sometimes these drugs are not as effective in people who smoke,
- are more likely to need surgery
- and are more likely to have to return for further surgery.

Some studies suggest that women who smoke are more likely to develop Crohn's Disease and to require surgery than men who smoke.

Smoking has also been shown to have an association with disease location. Smokers tend to have Crohn's Disease in the small intestine (small bowel) rather than the colon (large bowel). Fundamental differences in the functions of the small and large bowel may explain this.

#### How does smoking make you susceptible to Crohn's?

We do not know, although there are lots of theories. Tobacco smoke contains over a thousand different chemicals including nicotine, carbon monoxide and free radicals. There are several possible ways in which smoking may affect the gut – it may lower the intestines' defences, decrease the blood flow in the intestines, or cause changes to the immune system which result in inflammation.

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I was a smoker for 30 years, but when I was diagnosed with Crohn's, my consultant advised me to give up. I tried, and managed to give up after a bowel resection operation.

”

Carol, age 52

diagnosed with Crohn's Disease in 2012

### **What about the risk of passive smoking?**

Studies into the effect of passive smoking on Crohn's Disease are inconclusive. However, some studies suggest that children and unborn babies exposed to passive smoking may be more likely to develop Crohn's Disease.

Smoking during pregnancy is not advised for anyone whether or not they have Crohn's, due to the risks to the unborn baby.

### **If I am a smoker now, is it worth giving up?**

Both research and health professionals agree that giving up smoking is beneficial for people with Crohn's Disease. UK and European guidelines for people with Crohn's Disease strongly recommend that people with Crohn's do not smoke.

In the non-smoker, Crohn's seems milder. Once you have stopped smoking for one year, the chances of a flare-up may be as low as for someone with Crohn's who has never smoked. One study showed that people who continued to smoke were over twice as likely to have a flare-up compared to people who had stopped smoking.

Smokers also appear to have a greater need for some of the stronger forms of medical treatment such as immunosuppressant drugs. People who stop smoking are less likely to need repeated surgery compared with people who continue smoking after surgery.

Even just reducing the amount you smoke may have a positive effect on your symptoms. A recent study showed that heavy smokers have more strictures, and are more likely to need a resection than people who do not smoke as much. This suggests that, although completely stopping smoking has the best outcome, reducing the amount you smoke can also help. However, even light smokers with Crohn's Disease have more active disease and a greater hospitalisation rate.

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## SMOKING AND ULCERATIVE COLITIS

### **How does smoking affect Ulcerative Colitis?**

Research studies have shown that UC is less common in smokers than non-smokers. Some people have developed UC once they have given up smoking.

This suggests that smoking may delay or prevent UC, as well as reducing its severity. There are also studies that show that smokers with Ulcerative Colitis appear to suffer a milder form of the condition. Flare-ups, hospitalisation rates, the need for oral steroids or immunosuppressants, and colectomy rates are all reported to be lower in patients who smoke.

However, not all studies agree with this. For example, one study found that people with UC who smoked had an increased risk of developing joint and skin problems.

In general, health professionals consider the risks of smoking heavily outweigh any benefits seen in UC, and strongly discourage smoking in everyone, whether or not they have IBD.

### **Why may smoking have a protective effect against Ulcerative Colitis?**

Again, we do not really know why smoking has a protective effect against Ulcerative Colitis. It is thought that of the many chemicals in tobacco, nicotine is the most likely to have an impact.

It has been found that people who have UC may have a thinner mucus layer in the left colon and rectum when compared to healthy people. It is possible that nicotine may increase the production of this mucus. Nicotine may also suppress the immune system and prevent inflammation in the colon.

Another theory is that nitric oxide, released by nicotine, may reduce muscle activity in the colon and so reduce the need to go the toilet urgently.

**So do I need to give up smoking?**

It may be tempting to continue or even take up smoking to help your UC. However, not all research on smoking and IBD has come to a similar conclusion. Also, smoking increases your risk of chronic bronchitis, lung cancer, other cancers and heart diseases, and is not recommended by health professionals even for people with UC. There are many treatments much safer than smoking which could be explored. For more information on drug therapies, see our individual drug treatment sheets on the Crohn's and Colitis UK website:

**www.crohnsandcolitis.org.uk**

As yet, there has been no research into the effect of using electronic cigarettes on Ulcerative Colitis. However, the British Medical Association states that electronic cigarettes should only be used by people who wish to give up smoking, or reduce the amount they smoke, rather than by people who want to start smoking. In addition, electronic cigarettes are not currently regulated, so you cannot be sure how much nicotine is in them, and whether there are any other ingredients. There is also no clear evidence to show that they are safe.

**Can nicotine treatment help UC?**

There have been a number of studies on the effects of nicotine patches or chewing nicotine gum in treating Ulcerative Colitis. For mild or moderately active UC, it appears that nicotine patches or gum can sometimes help.

However, not everybody can tolerate nicotine. In several studies, people who tried nicotine treatment for IBD suffered side effects such as dermatitis, nausea, headaches or sleep disturbance. Although nicotine appeared to help with active disease, it did not seem to be as beneficial when given as maintenance therapy (taking it continuously) to prevent flare-ups. Research has also indicated that nicotine is less effective than several more conventional IBD drug treatments, such as 5ASAs and steroids.

If you wish to try nicotine treatment, discuss it with your specialist doctor or IBD team.

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With the money I saved, I treated myself to a new laptop. I felt that it was important to treat myself in recognition of giving up what had been a major habit in my life.

”

Carol, age 52  
diagnosed with Crohn's Disease in 2012

**CAN I GET HELP TO GIVE UP SMOKING?**

The NHS has set up a programme to help people stop smoking (see [www.smokefree.nhs.uk](http://www.smokefree.nhs.uk)). Your doctor or any other healthcare professional should also be able to help you.

The NHS can help with Nicotine Replacement Therapy (NRT) which includes patches, gum, lozenges and inhalers. NRT gets nicotine into the blood stream without smoking and its side effects. Medicines, such as bupropion or varenicline, can be used to manage withdrawal symptoms.

You may like to consider including counselling as part of your 'stop smoking' programme. Research has found that a combination of medication and counselling can be more effective than a single approach.

## OTHER USEFUL ORGANISATIONS

**NHS Smokefree National Helpline:**  
0300 123 1044  
Website: [www.nhs.uk/smokefree](http://www.nhs.uk/smokefree)

**QUIT**  
[www.quit.org.uk](http://www.quit.org.uk)

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## HELP AND SUPPORT FROM CROHN'S AND COLITIS UK

All our information sheets and booklets are available to download from our website: [www.crohnsandcolitis.org.uk](http://www.crohnsandcolitis.org.uk).

If you would like a printed copy, please contact our information line – details below.

**Crohn's and Colitis UK Information Line:** 0300 222 5700. Open Monday to Friday, 9 am to 5 pm, except Thursday open 9 am to 1 pm, and excluding English bank holidays. An answer phone and call back service operates outside these hours. You can also contact the service by email [info@crohnsandcolitis.org.uk](mailto:info@crohnsandcolitis.org.uk) or letter (addressed to our St Albans office). Trained Information Officers provide callers with clear and balanced information on a wide range of issues relating to IBD.

**Crohn's and Colitis Support:** 0121 7379 931: Open Monday to Friday, 1 pm to 3.30 pm and 6.30 pm to 9 pm, excluding English bank holidays. This is a confidential, supportive listening service, which is provided by trained volunteers and available to anyone affected by IBD. These volunteers are skilled in providing emotional support to anyone who needs a safe place to talk about living with IBD.

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### ABOUT CROHN'S & COLITIS UK

We are a **national** charity established in 1979. Our aim is to improve life for anyone affected by Inflammatory Bowel Diseases. We have over 28,000 members and 50 local groups throughout the UK. Membership costs start from £15 per year with concessionary rates for anyone experiencing financial hardship or on a low income.

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