



## INFORMATION SHEET

# SMOKING AND IBD

## INTRODUCTION

If you have Ulcerative Colitis or Crohn's Disease and are a smoker, you're probably wondering whether this could affect your disease.

The relationship between smoking and Inflammatory Bowel Disease 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, people who smoke are less likely to develop Ulcerative Colitis, although it's important to remember that smoking still carries many other health risks.

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



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?

Smoking increases the risk of developing Crohn's Disease. Research also suggests that smoking can make Crohn's worse.

People with Crohn's who smoke may find that they:

- have more severe symptoms and complications such as strictures, or narrowings in the bowel that can cause dangerous blockages
- are more likely to develop fistulas, abnormal passageways in the body that often require surgery
- have more flare-ups
- require more immunosuppressant drugs, such as steroids, and biologic drugs – and sometimes these drugs are not as effective in people who smoke
- are more likely to need surgery and to have to return for further surgery
- are more likely to develop extraintestinal manifestations – additional complications in other parts of the body – such as osteoporosis (weak bones), arthritis, skin disorders and eye disorders

Research suggests that women who smoke are more likely to develop Crohn's Disease, and to require surgery, than men who smoke.

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

We do not know, although there are lots of theories. Tobacco smoke contains more than 1,000 chemicals including nicotine, carbon monoxide and free radicals. There are a number of ways in which these chemicals may affect the gut. Smoking can change the bacteria that live in the gut, influence how a person's genes function and cause changes to the immune system – all of which may make a person more likely to develop Crohn's.

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I was a very heavy smoker, averaging 40 a day. Giving up smoking was the best thing I did – my Crohn’s has improved so much.

”

Jean, age 67

diagnosed with Crohn’s Disease in 1998

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

Studies into the effect of passive smoking on Crohn’s Disease are inconclusive. Some studies suggest babies and children exposed to cigarette smoke may be more likely to develop Crohn’s. Another study suggests that adults with Crohn’s who are exposed to passive cigarette smoke may need more drug treatments, but more research is needed to determine whether these relationships are true.

The lack of understanding between passive smoking and Crohn’s may in part be due to difficulties in measuring how much smoke someone is exposed to through passive smoking.

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?**

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

In the non-smoker, Crohn’s appears 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. People who continue to smoke are more than twice as likely to have a flare-up compared to people who have stopped smoking.

Smokers are also more than twice as likely to need surgery, to experience a recurrence of disease after surgery and to need a second surgery. However, stopping smoking can reduce these risks to the rates of people who have never smoked.

Even reducing the amount you smoke may have a positive effect on your symptoms. Studies have shown that heavy smokers develop more extraintestinal manifestations (additional complications in other parts of the body), have more strictures, and are more likely to need to have part of their intestine removed 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 have more active disease on average, a greater hospitalisation rate and a higher likelihood of needing surgery.

Considering all available evidence, it is widely advised that people with Crohn’s disease stop smoking. See **Can I get help to give up smoking?** for further information.

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**SMOKING AND ULCERATIVE COLITIS**

**How does smoking affect Ulcerative Colitis?**

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

While most studies show that smoking may delay or prevent a person from developing UC, it is still unclear whether smoking affects the progression or course the disease takes. Some studies show that smokers with UC suffer a milder form of the condition. Flare-ups, hospitalisation rates, the need for oral steroids or immunosuppressants, and colectomy rates have all been reported to be lower in people with UC who smoke.

However, not all studies agree with this. One study found that people with UC who smoked had an increased risk of developing joint and skin problems. A study that analysed data from 16 previous studies found no difference in risk of colectomy, flare-ups or pouchitis in those with UC who smoked, compared to those who didn’t.

It is important to consider the harmful effects of smoking. Smoking is a known cause of at least 13 types of cancer, including bowel, lung, stomach and ovarian. Smoking is also a known cause of cardiovascular disease – with smokers almost twice as likely to have a heart attack compared to those who have never smoked. In general, health professionals consider that the risks of smoking greatly 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?**

We don't really understand why smoking has a protective effect against UC. There are many chemicals in cigarettes that could be contributing to this effect. Nicotine is the most widely studied and is likely to be having an impact.

People with UC may have a thinner mucus layer in the colon and rectum when compared to healthy people. 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 to the toilet urgently.

We know that the genes a person has inherited can contribute to developing UC. Smoking can change how a person's genes are expressed – providing another potential mechanism for how smoking may influence the development of IBD.

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

It may be tempting to continue or even take up smoking to help your UC. However, research findings on smoking and IBD are mixed. We know that 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 that are much safer than smoking that can be explored. For more information on drug therapies, please see our **drug treatment information sheets** and our information sheet **Other Treatments for IBD**.

**Can nicotine replacement therapy help UC?**

Some people have found that using nicotine replacement therapies, such as nicotine patches or chewing gum, is helpful in managing their UC. Results from research studies are inconclusive. This may be because other elements of cigarette smoke could be contributing.

The use of nicotine patches in people with mild or moderately active UC has been shown to be more effective than a placebo (a blank patch with no nicotine) in inducing remission. However, nicotine isn't more effective than conventional IBD drug treatments, such as aminosalicylates (5-ASAs) and steroids, in inducing remission. It is not yet known whether nicotine is more effective as a therapy in those who are ex-smokers compared to those who have never smoked. Although nicotine replacement therapies are much safer than smoking, not everybody can tolerate nicotine. Nicotine is highly addictive – and can have other effects, such as increasing heart rate and blood pressure. In several studies, people who tried nicotine therapy for IBD suffered side effects such as dermatitis, nausea, headaches or sleep disturbance.

As yet, there has been no research into the effect of electronic cigarette usage on Ulcerative Colitis. Public Health England has reported that e-cigarettes are 95% less harmful than smoking cigarettes. However, e-cigarettes are only recommended for those who wish to give up smoking, or reduce the amount they smoke, rather than by people who want to start smoking.

If you wish to try a nicotine replacement therapy, 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 a programme to help people stop smoking. For more information see [www.smokefree.nhs.uk](http://www.smokefree.nhs.uk). Your doctor or any other healthcare professional should also be able to help you. Some pharmacists, private health insurers, employers and local governments offer programmes to help you stop smoking.

If you have UC and are interested in giving up smoking, you are advised to discuss this with your IBD care team. Some people with UC may find that their symptoms worsen when they stop smoking, so it could be helpful to have a plan in place in case this happens.

The NHS can help with nicotine replacement therapy (NRT), which includes patches, gum, lozenges and inhalers. NRT gets nicotine into the bloodstream without smoking and its harmful 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 programme to stop smoking. Research has found that a combination of medication and counselling can be more effective than a single approach.

“ 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. ”

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**Carol**, age 52  
diagnosed with Crohn’s Disease in 2012

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

We offer more than 45 publications on many aspects of Crohn’s Disease, Ulcerative Colitis and other forms of Inflammatory Bowel Disease. You may be interested in our comprehensive booklets on each disease, and other topics such as **Food and IBD**. We also publish information sheets on a wide range of topics, from individual medicines to coping with symptoms and concerns about relationships, school and employment.

All publications are available to download from [www.crohnsandcolitis.org.uk](http://www.crohnsandcolitis.org.uk).

The complete list is here: [www.crohnsandcolitis.org.uk/about-inflammatorybowel-disease/quick-list](http://www.crohnsandcolitis.org.uk/about-inflammatorybowel-disease/quick-list).

Health professionals can order some publications in bulk by using our **online ordering system**, available from the webpage above.

If you would like a printed copy of a booklet or information sheet, please contact our helpline. Our helpline is a confidential service providing information and support to anyone affected by Inflammatory Bowel Disease.

Our team can:

- help you understand more about IBD, diagnosis and treatment options
- provide information to help you to live well with your condition
- help you understand and access disability benefits
- be there to listen if you need someone to talk to
- put you in touch with a trained support volunteer who has a personal experience of IBD

Call us on **0300 222 5700** or email [info@crohnsandcolitis.org.uk](mailto:info@crohnsandcolitis.org.uk)

See our website for LiveChat: [www.crohnsandcolitis.org.uk/livechat](http://www.crohnsandcolitis.org.uk/livechat)

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## OTHER USEFUL ORGANISATIONS

### NHS Stop Smoking Services by area:

#### England

0300 123 1044  
[www.smokefree.nhs.uk](http://www.smokefree.nhs.uk)

#### Northern Ireland

[www.want2stop.info/stop-smoking-services](http://www.want2stop.info/stop-smoking-services)

#### Scotland

0800 84 84 84  
[www.nhsinform.scot/healthy-living/stopping-smoking](http://www.nhsinform.scot/healthy-living/stopping-smoking)

#### Wales

0800 085 2219  
[www.helpmequit.wales](http://www.helpmequit.wales)

#### QUIT

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

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We hope that you have found this leaflet helpful and relevant. If you would like more information about the sources of evidence on which it is based, or details of any conflicts of interest, or if you have any comments or suggestions for improvements, please email the Publications Team at [publications@crohnsandcolitis.org.uk](mailto:publications@crohnsandcolitis.org.uk). You can also write to us at Crohn's and Colitis UK, 45 Grosvenor Road, St Albans, AL1 3AW or contact us through the **Information Line: 0300 222 5700**.

### 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 33,000 members and 50 Local Networks throughout the UK. Membership costs start from £15 per year with concessionary rates for anyone experiencing financial hardship or on a low income.

This publication is available free of charge, but we would not be able to do this without our supporters and members. Please consider making a donation or becoming a member of Crohn's and Colitis UK. To find out how, call **01727 734465** or visit [www.crohnsandcolitis.org.uk](http://www.crohnsandcolitis.org.uk)

