

2 | Epidemiology – who gets IBS?



Epidemiology is the study of how often medical conditions occur in different groups of people. It characterises the condition in terms of age, sex, lifestyle habits, social and economic behaviours, ethnic origin and association with other diseases, conditions or treatments. This information is intended to give us clues to the cause of the condition and to suggest treatments or preventive strategies.

Can you define the irritable bowel syndrome in one sentence?

In irritable bowel syndrome (IBS), the function of the bowel is disturbed, causing symptoms, but its structure is normal.

How common is irritable bowel syndrome?

The individual symptoms that constitute IBS – constipation, diarrhoea, bloating and abdominal pain – are so common that most

of us can expect to experience them at some time. It's when they come together, persist and interfere with daily life that we begin to feel that something is wrong. This constellation of bowel symptoms has come to be known as IBS, having previously been known in different guises as an irritable or spastic colon.

Depending on the criteria used to define IBS, about 9–23% of the world population are affected. In the UK, about 4–6% of the population have been given a formal diagnosis of IBS, but surveys suggest that a further 8% have undiagnosed IBS. In other words, at least 1 in 10 people have IBS to some extent. It is the most common gastroenterological problem seen by family doctors even though many people never go to the doctor with their IBS symptoms, so a formal diagnosis is never made.

If you have had symptoms for over a year without a recent change, without unintended weight loss or blood in the stool, there is no need to see your doctor for a 'formal' diagnosis of IBS. Many people come to terms with their symptoms of IBS, learn to live with them and lead perfectly normal lives.

LIFE FACTORS

*We're always being told our Western lifestyle is unhealthy.
Is IBS predominantly a disease of Western developed countries?*

IBS is not just related to modern living or the lifestyle of developed countries. It exists in every society that has been examined. The number of people said to be affected varies from 3.5% in Iran to 30% in Nigeria. These differences probably, at least partly, reflect the criteria used to diagnose IBS, how the questions about it were posed and cultural differences in answering them. Interestingly, the balance between constipation-predominant and diarrhoea-predominant IBS also varies. Constipation is said to dominate in Bangladesh and Singapore, whereas diarrhoea is more common in parts of China and India.

Is IBS more common in women?

IBS appears to be at least twice as common in women than in men. In one survey, 86% of people with IBS attending their family doctor in the UK were women. The reason for this is unknown. In a few countries (India, Sri Lanka and Japan, for example), IBS isn't more common in women. This may be because Asian men are more likely than Asian women to tell their doctor about symptoms that could be caused by IBS. Since the diagnosis of IBS depends entirely on people describing their symptoms, cultural issues may contribute to the number of men and women being diagnosed. British men are notoriously reluctant to talk about bodily functions, and this may partly explain why more women than men in the UK appear to have IBS.

I'm sure my IBS is worse during my period. Is IBS affected by menstruation?

Many women report that their IBS symptoms are worse during their periods. Occasionally, they feel their symptoms are worse in the middle of the cycle. It is possible that these changes in severity relate to changes in the levels of the hormones oestrogen and progesterone.

Oestrogen levels are highest near the mid-point of the cycle, and in women without IBS, the stools tend to be firmer at this time. When oestrogen and progesterone levels fall towards the end of the cycle, the lining of the uterus breaks down and menstruation starts. In women without IBS, we know that the stools tend to be somewhat looser and more frequent during menstruation. These effects may be exacerbated in women with IBS, so that diarrhoea is worse during menstruation and constipation is worse between periods.

Interestingly, a recent study has suggested that the rectum becomes more sensitive to distension in women with IBS during menstruation, which would explain an increase in pain. Alternatively, some women may find menstruation stressful anyway, so that other symptoms can become less tolerable.

*I've just been put on hormone replacement therapy (HRT).
Does HRT affect IBS?*

There is just one study suggesting that women with IBS have less bloating when they take HRT, but it doesn't seem to affect other symptoms. IBS is not a reason to try HRT.

I've got IBS and I'm worried that my son will get it too. Is there a genetic influence?

One way of assessing the heritability of a condition is to look at how often the disease occurs in *both* members of a pair of twins. This is called the concordance rate. Both twins are assumed to have had the same environmental influences, but identical twins have all their genes in common, whereas non-identical twins have about half their genes in common. Therefore, if genes are important in the aetiology of a disease, that is, in what causes the disease, the concordance rate will be higher in identical twins.

One study of twins has shown a concordance rate of 33% for IBS in identical twins compared with just 13% for non-identical twins. This suggests that genetic influences *are* important. Although no specific gene has been identified, a recent study has demonstrated an association between certain forms of the gene coding for a protein that transports a substance called serotonin (which affects the movement of the gut) and diarrhoea-predominant IBS. Hopefully, as we discover more information on the human genome, we will better understand how different genes interact with the environment to produce illnesses.

How old are people when they develop IBS?

In a European survey of over 40 000 people published in 2003, symptoms that could be explained by IBS were found in 12.2% of 18–34-year-olds, 9.9% of 35–54-year-olds and 7% of over 55-year-olds. Similar results were found in an American study.

IBS seems to be most common in young women but exists in all age groups.

How often will the average family doctor see a new case of IBS?

Large surveys from the UK and USA have estimated that about 2–4 new cases of IBS occur for each 1000 people and are diagnosed by family doctors every year. As the average family doctor in the UK has about 2000 patients, he or she will see 4–8 new cases of IBS each year. As there is no cure for IBS, many patients will see their doctor again and again. It has been estimated that 1 in 12 of family doctor consultations in the UK are to do with gastroenterological problems. About a third of these patients will be asking about symptoms related to IBS, so that IBS is probably the most common gastroenterological problem seen by family doctors.

Although family doctors probably refer only about a third of the patients they see with IBS for a specialist opinion, IBS may form up to 40% of a hospital gastroenterologist's outpatient practice.

Is smoking linked to IBS?

Smoking has not been linked to IBS. However, it is known to exacerbate Crohn's disease, even though it may actually help ulcerative colitis.

Is alcohol linked to IBS?

Excess alcohol consumption tends to make the stools looser and is in some people a cause of diarrhoea. Nausea, vomiting and pain in the upper abdomen are also frequently associated with excess alcohol, or with alcohol withdrawal. Alcohol consumption is not, however, associated with IBS.

IBS AND OTHER CONDITIONS

What about obesity? It's always on the TV and in the papers about how obesity is rising. Is IBS associated with this?

There is no association between IBS and obesity; obesity does not cause IBS. Losing weight can cure some cases of heartburn and indigestion, such as from acid reflux from the stomach, but it will not improve IBS.

Is IBS more common after a hysterectomy or any other operation?

In a study of over 40 000 European women, hysterectomy (removal of the womb) was not associated with IBS. There was a slightly higher rate of previous appendectomy (removal of the appendix) in IBS sufferers. This might be because both conditions cause pain in the right lower corner of the abdomen, so the IBS in these cases may initially have been mistaken for, for example, appendicitis. The rates of gall bladder, ovarian or bladder surgery were no higher in people with IBS.

I'd had bad gastroenteritis not long before I got IBS. Is IBS more common after a bout of gastroenteritis?

IBS occurring after gastroenteritis probably accounts for at least 10% of all cases of IBS. The risk of getting IBS following gastroenteritis has been estimated to be 4–7% (4–7 people in every 100) in the year after the infection. This compares with an average risk in the general population of 0.2% (2 in a 1000) each year.

Is IBS more common after taking antibiotics?

This is something that some patients notice, but surveys haven't supported the idea. Antibiotic treatment frequently causes a

loosening of the stool or actual diarrhoea because many of the bacteria that normally live in the large bowel are killed. This is not IBS, and the bowel habit usually returns to normal once the antibiotic treatment has been completed and the bowel's population of bacteria returns to normal.

Is IBS associated with indigestion?

In a study of over 40 000 Europeans, indigestion (dyspepsia), including gastro-oesophageal reflux (reflux of acid back from the stomach into the oesophagus) and peptic ulcer disease, was more common in those with IBS. In clinical practice, between a third and a half of people coming to the clinic with IBS-type symptoms will also describe symptoms of indigestion. Most of these people will not have ulcers or severe inflammation of their oesophagus (oesophagitis). Rather, they tend to have dysmotility (a lack of co-ordination of the stomach muscles) or mild acid reflux from the stomach into the oesophagus.

The relationship between indigestion and IBS is not surprising as stomach function can affect bowel function and vice versa. Filling of the stomach promotes muscular activity and emptying of the bowel. This is called the gastrocolic reflex, and it explains why people sometimes need to empty their bowel immediately after or even during a meal. Conversely, constipation slows down the emptying of partly digested food from the stomach, and it is easy to understand how severe constipation can produce symptoms of indigestion, nausea and vomiting.

Will having IBS mean I'll get cancer later?

No. IBS does not predispose to cancer or to any other serious disorder.