

Drugs used in IBD



Improving life for people affected by inflammatory bowel diseases

www.crohnsandcolitis.org.uk

About this booklet

Crohn's Disease and Ulcerative Colitis are the two main forms of Inflammatory Bowel Disease (IBD). If you have IBD, your doctor is likely to prescribe drugs as part of your treatment. Knowing more about treatment options can help you to feel better informed and able to take a more active role in decisions about your care. This booklet aims to answer some of the questions most often asked about IBD drugs and medicines. We hope you will find it helpful.

All our publications are research based and produced in consultation with patients, medical advisers and other health or associated professionals. However, they are prepared as general information and are not intended to replace specific advice from your own doctor or any other professional. Crohn's and Colitis UK does not endorse or recommend any products mentioned.

About Crohn's and Colitis UK

We are a UK-wide charity established in 1979. Our aim is to improve life for anyone affected by Inflammatory Bowel Diseases. We have over 30,000 members and 70 Local Groups throughout the UK.

Membership costs £15 a year. Free membership is available for 16-18 yr olds, students, and people over 65. People on lower incomes may join at a reduced rate.

We do not charge for copies of this booklet, but we do need funds to be able to produce it. 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

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Introduction

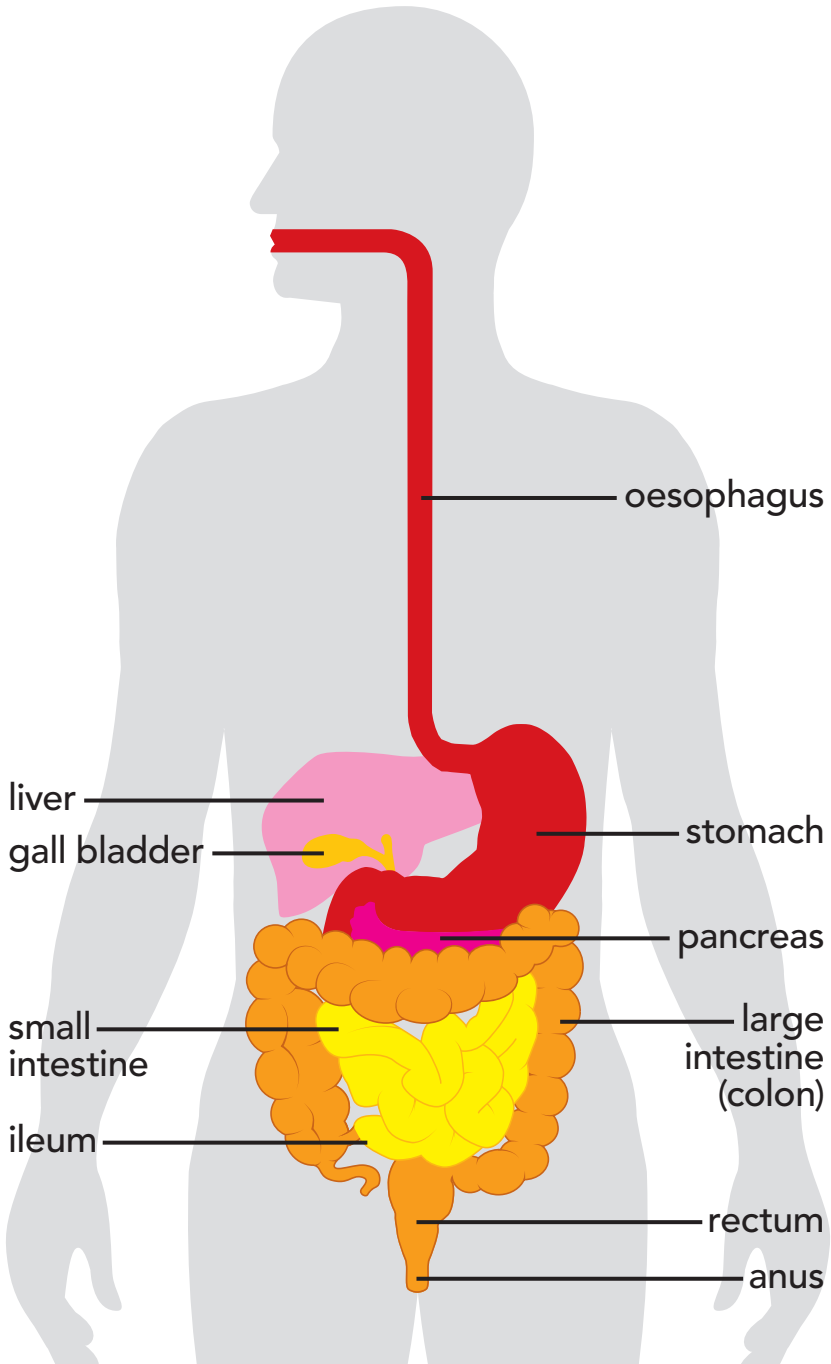
About IBD

Crohn's Disease and Ulcerative Colitis (UC) are the two main forms of Inflammatory Bowel Disease (IBD). In IBD, sections of the digestive system (which is also known as the gut and which includes the intestines or 'bowels') become sore and inflamed. Crohn's can affect any part of the digestive system from the mouth to the anus. UC affects the rectum and often extends into the colon (large intestine).

IBD is a chronic condition, which means that it is ongoing and usually lasts throughout your life. It can change unpredictably – you may have times of good health, called remission, when there are few or no symptoms, alternating with times when your symptoms are more active, called relapses or 'flare-ups'. It is also a very individual condition. Some people may relapse only occasionally although others may have more frequent flare-ups and are generally more seriously affected.

The diagram opposite shows the main features of the digestive system, including the areas most likely to be affected by IBD.

The digestive system



Why are drugs used in IBD?

If you have IBD your doctor or IBD nurse is likely to prescribe medication (drugs) as part of your treatment. We do not yet know what causes IBD, so these drugs are not cures, but they can be very effective in treating your symptoms.

Initially, the aim of the drug treatment will be reduce the inflammation in your gut to give you relief from symptoms and induce (bring about) remission. This is sometimes called induction therapy. Once your condition is under control, your doctor will usually continue to prescribe drugs to help maintain remission and prevent a relapse. This is called maintenance therapy.

What types of drugs are used in IBD?

The main types of drugs commonly used in IBD are:

Anti-inflammatory drugs:

These stop or damp down the inflammation typical of IBD.

They include:

- aminosalicylates (5-ASAs)
- corticosteroids, often just called steroids
- immunosuppressants
- biologics or 'anti-TNF' drugs.

Symptomatic drugs:

These are used to help reduce symptoms such as diarrhoea, constipation or pain, but cannot reduce the inflammation. They may include antidiarrhoeals, laxatives, anti-spasmodics, and analgesics (painkillers).

Antibiotics:

These are used to treat and in some cases prevent bacterial infections. They tend to be used for Crohn's Disease rather than for UC.

These drugs are covered in more detail in the sections starting on page 12.

Why do some drugs have several names?

Generic and brand names

Every drug has an approved **generic** or medical name, decided on by an expert committee. Many drugs are also known by a **brand** or trade name chosen by the pharmaceutical company making and selling that drug as a medicine. So, for example, the drug infliximab (generic name) is also known as Remicade (brand name).

Some drugs are sold in a generic form as well as in a branded form. If several companies market a drug, it will have several different brand names.

Does it matter which I have?

Medicines usually contain inactive ingredients as well as the main active ingredient, the generic drug. These help to formulate the medicine, that is, to make it into its tablet, cream or liquid form. They can also be used, for example, to give tablets a particular colour or affect how long the tablets take to dissolve in the gut.

Usually, for most prescription medicines, such small differences are unlikely to create any problems. Whether you are prescribed the branded medicine or a generic version of a drug, provided your dose contains the same amount of active ingredient your medicine should have the same therapeutic effect.

However, for a very small number of drugs, the differences in formulation may be more significant. For example, some of the different brands of mesalazine work in a slightly different way. For this reason your doctor may decide to prescribe a particular brand rather than the generic version. (See Aminosalicylates for more detail.)

Why do drugs come in different forms?

Some of the drugs and medicines prescribed for IBD come in several different forms – for example as tablets, as granules, or as a liquid or foam.

This is so that they can be taken in the way that helps them to work most effectively. This is usually orally (by mouth) but may be topically (applied directly) or by injection. Which way is best will depend partly on the area of the gut affected by your IBD and partly on the nature of the drug itself.

Oral Drugs

Most of the drugs used for IBD have a tablet, capsule or granule form, so can be taken by mouth. Many people with IBD find this a convenient way to take their medication and it is easy for a doctor to change dosage levels if necessary. However, anything taken by mouth will start to dissolve very quickly, so many of the tablets and capsules have a special 'gastro-resistant' coating. This makes sure the drug is released in the right part of the digestive system – usually the small intestine (small bowel) or large intestine (colon). This is why it can be important to swallow tablets or capsules whole and not to break or crush them.

Topical treatment

Taking a drug topically means applying it directly to the affected part of the body. This can mean that the drug works more efficiently. Another advantage can be that other parts of the body are not so readily affected by the drug, and this can reduce possible side effects.

In IBD, topical treatment is usually most appropriate when the inflammation is in the rectum (a condition often known as proctitis) or near the end of the colon.

One way of delivering topical treatment to inflammation in these areas is to use a suppository. This is a small bullet-shaped capsule of the drug in a waxy like substance that will dissolve at body temperature. The suppository is inserted directly through the anus (back passage) into the rectum. As it dissolves, it releases the drugs in exactly the right area.

Another way of getting a drug directly into the rectum and colon is to take it as an enema – in a liquid or foam form, put into the rectum through the anus using a specially designed applicator. Foam enemas are often easier to retain than liquid enemas so can be particularly useful at the beginning of a flare-up, when the gut is most sensitive. Liquid enemas can usually travel further along the colon, so will reach more of the inflammation, especially if taken just before lying down.

Both steroids and aminosalicylates (5-ASAs) are sometimes given topically, using a suppository or enema.

If the inflammation is on the surface of the skin, an ointment or cream may be helpful. Tacrolimus, an immunosuppressant is available in ointment form and may be used to treat peri-anal Crohn's.

Injections and infusions

Some drugs are injected subcutaneously (under the skin), intramuscularly (into a muscle) or intravenously (into a vein). Intravenous injections are often given through a drip using an infusion (a dilute form of the drug). Biologics such as infliximab and adalimumab cannot be taken orally so are always given by injection. Steroids and some immunosuppressants may be also injected intravenously to get a quick response in someone having a severe flare-up.

Drugs used in IBD

Anti-inflammatory Drugs

Aminosalicylates (5-ASAs)

Aminosalicylic acids are also known as 5-ASAs. They are chemically related to aspirin, and work by damping down the inflammatory process, so allowing damaged tissue to heal.

There are several types of 5-ASA drugs:

- sulphasalazine (brand name Salazopyrin)
- mesalazine (Asacol, Ipocol, Octasa, Pentasa, Salofalk and Mezavant). This 5-ASA comes in different formulations which target slightly different parts of the digestive system. Asacol, Ipocol, Octasa and Salofalk tablets and granules have a special coating that dissolves at a certain pH (acidity) in the gut. This means that they work best in the last part of the small intestine and the beginning of the colon. Pentasa tablets and granules work throughout the gut. Mezavant tablets release their mesalazine as they pass through the large intestine (colon).
- olsalazine (Dipentum) and balsalazide (Colazide). These 5-ASAs also work best in the large intestine (colon).

How are these 5-ASAs used in IBD?

5-ASAs are often used to treat mild to moderate flare-ups of UC. They may then be prescribed to maintain remission and help prevent flare-ups on a longer term basis.

The use of 5-ASAs for Crohn's Disease is more controversial. Some 5-ASAs may help to control mild Crohn's in the ileum and colon. However, there is little evidence that 5-ASAs are effective in maintaining remission, although they may help reduce the chance of Crohn's reoccurring after surgery. 5-ASAs are not recommended for severe Crohn's.

Some people with IBD have a slightly increased risk of developing colon cancer, and another possible benefit of using 5-ASAs long-term is that they may decrease this risk. So, if you have UC or Crohn's Colitis your doctor may advise you to continue to take a 5-ASA indefinitely. For more details see our information sheet, **Bowel Cancer and IBD**.

“When they said you have to keep taking them every day, I thought, ‘what a drag!’ – but you get into the habit and they do seem to be keeping my UC at bay...” Gary

How do I take 5-ASAs?

As explained above, some 5-ASAs work best in certain parts of the gut, so you may be prescribed a particular type or brand depending on where you have the inflammation. Many specialists in IBD believe that if a particular brand or type of 5-ASA is working well, you should not be switched to another without a good clinical reason.

Oral mesalazine is often prescribed in two or three doses during the day. However, recent evidence suggests that taking these together in a single daily dose can be just as effective, and there are once-a-day brands available. If you feel this could be helpful for you, discuss this with your doctor.

Some 5-ASAs come as suppositories or enemas so may be useful if you have proctitis (inflammation of the rectum) or inflammation in the end of your colon.

Can 5-ASAs have side effects?

Like all drugs, 5-ASAs can have side effects, although not everyone will get them, and some are quite rare. They can include:

- nausea, vomiting, and watery diarrhoea
- headache and indigestion
- mild allergic reactions with rash, itchiness and fever
- less commonly, problems with the kidneys, liver, lungs and pancreas.

Sulphasalazine can cause male infertility by reducing the sperm count, but this usually resolves once the drug is stopped. See our information sheet: [Fertility and IBD](#). Sulphasalazine can also reduce the body's ability to absorb folates (B vitamins) which are essential for blood cell formation. Some people taking sulphasalazine may need a folic acid supplement.

It is usual to have regular blood tests while on 5-ASA treatment, especially when you first start taking the drug, to check for any unwanted side effects. You may have, for example, a blood test every three months for a year, then every six months or even annually. If you are taking sulphasalazine you may need slightly more frequent blood tests.

As for all drugs and medicines, if you are concerned about side effects or any new symptoms you experience while on 5-ASAs, contact your doctor or your specialist IBD team.

Corticosteroids (Steroids)

Corticosteroids are often just called steroids. They are closely related to cortisol, a hormone produced naturally in the adrenal gland. They act on the immune system (the body's protection system against harmful substances) and work by blocking the substances that trigger allergic and inflammatory responses. This means that they can reduce the redness, swelling and pain of the type of inflammation found in IBD.

A range of corticosteroids are used in IBD. They include:

- prednisolone, prednisone, hydrocortisone and methylprednisolone. These are sometimes known as the 'conventional corticosteroids'.
- budesonide (Entocort or Budenofalk). This is a newer type of steroid which has a local anti-inflammatory effect at the end of the small bowel (ileum).
- beclometasone dipropionate (BDP) (Clipper).

Fact: The steroids used in IBD are corticosteroids. They are not the same as anabolic steroids (the type of steroids sometimes used by athletes and bodybuilders).



How are these steroids used in IBD?

Steroids such as prednisolone, prednisone, and hydrocortisone are used to treat acute attacks of UC or Crohn's. They are generally very effective at bringing symptoms under control – as many as eight out of 10 people respond to treatment with steroids. People often notice an improvement in their symptoms within days of starting the drug.

These steroids can be given by injection, as tablets, or topically. When injected or taken by mouth, they can reduce inflammation throughout the whole body. So they can be used to reduce inflammation in the eyes, skin and joints, if affected, as well as in the gut.

While such a wide ranging effect can be very helpful, sometimes a more targeted approach is needed. Budesonide is a new type of steroid which is very active in the gut, but then broken down more quickly, so should affect the rest of the body less than the conventional corticosteroids. It is mainly used to treat Crohn's disease of the ileum (the end of the small intestine) and the beginning of the large bowel. It can also be helpful for Collagenous Colitis (a slightly different form of inflammatory bowel disease).

Beclometasone dipropionate (also known as BDP or Clipper) is used only for UC. It is usually taken together with a 5-ASA (such as mesalazine) but for a shorter period of time. Like 5-ASAs, BDP tablets have a special coating so the drug can reach the targeted area of inflammation without first dissolving in the stomach. This should mean less of the steroid enters the bloodstream to reach the rest of the body, and this can help reduce side effects.

Coming off steroids

Although they are very effective at bringing symptoms under control, steroids cannot prevent flare-ups and often have rather strong side effects, so are not used for maintenance treatment. So, once you begin to feel well, your doctor will start to reduce your steroid dose. This has to be done gradually, especially if you have been on steroid treatment for more than a few weeks.

This is because corticosteroids are very similar to the naturally occurring hormone, cortisol, and when you take steroids as medicine your adrenal glands reduce or stop cortisol production. This is known as adrenal suppression. If you suddenly stop your steroid treatment, it may take some time before the adrenal glands start producing cortisol normally again. This could leave you with much lower levels of cortisol in your body, which can mean that your body does not respond so well to stressful situations, causing nausea, fatigue and light-headedness.

Unfortunately, sometimes the symptoms return when you reduce the dose. If this keeps happening, immunosuppressant drugs (see below) may be added to help you come off steroids completely.

Key Tip: You will need to tell any doctor treating you that you are on steroid treatment. Carry a card showing the dose of steroids you are taking and the date treatment began. It can also be a good idea to wear a medical identity bracelet or necklace.



What are the possible side effects of steroids?

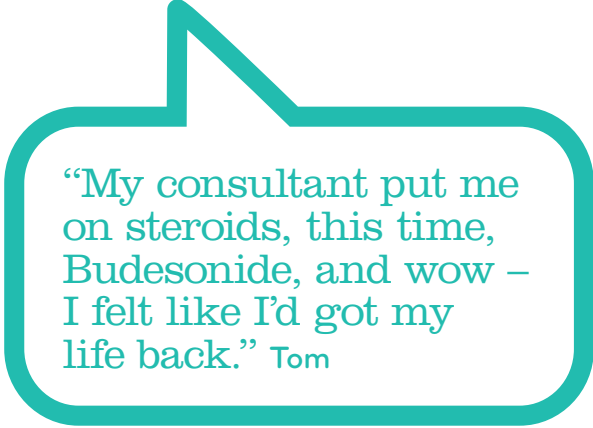
Although steroids are naturally present in the body, the high doses needed to control inflammation can have unwanted side effects. Most people will experience at least some of these side effects, which can be off-putting. However, steroids can be very effective at controlling flare-ups and many of these side effects usually disappear when the dose is reduced or stopped. The challenge is to get the greatest possible benefit with the fewest side effects and it is best to discuss this carefully with your IBD specialist.

Temporary side effects can include:

- an increase in appetite which can lead to weight gain
- rounding or 'mooning' of the face, growth of facial hair
- development or worsening of acne
- an increase in blood sugar level and salt retention – so legs may swell
- mood changes and problems with sleeping and/or concentrating
- a reduced ability to cope with infections
- more rarely, pain in the chest or upper abdomen.

Longer term side effects may include:

- thinning of the bones, muscles and skin
- a tendency to bruise easily
- diabetes due to increased blood sugar levels
- after longstanding treatment with steroids, problems with natural cortisol production
- more rarely, glaucoma or cataracts.



“My consultant put me on steroids, this time, Budesonide, and wow – I felt like I’d got my life back.” Tom

You will be regularly monitored while you are being treated with steroids. If you are concerned about any side effects or have any queries about new symptoms you experience, talk to your doctor or specialist IBD team. You may also be prescribed supplements, for example of vitamin D and calcium to help combat the bone thinning effects of steroids. For more details see our information sheet **Bones and IBD**.

Immunosuppressants

As their name suggests, immunosuppressants suppress (reduce the effectiveness of) the immune system (the body's protection system against harmful substances). They are helpful in IBD because, in doing so they also reduce levels of inflammation.

The main immunosuppressants used in IBD include:

- azathioprine (Imuran) and mercaptopurine or 6-MP (Puri-nethol)
- methotrexate
- mycophenolate mofetil
- ciclosporin
- tacrolimus.

How are these immunosuppressants used in IBD?

Immunosuppressants are mainly used when treatment with steroids and 5-ASAs has failed to control the inflammation, or when steroids cannot be withdrawn without causing a relapse. If someone who is dependent on their steroid treatment in this way starts taking an immunosuppressant as well, they can often gradually reduce or even stop taking the steroids without worsening the inflammation. This is why immunosuppressants are sometimes called 'steroid-sparing' drugs.

The various immunosuppressants work slightly differently. Your doctor will talk you through the benefits and possible side effects of the one they are recommending for you. Make sure they know about any previous illnesses and about any new symptoms you notice once you start your treatment.

Azathioprine and mercaptopurine

These two drugs are closely related chemically and work in a similar way. Azathioprine is used more commonly in the UK, while mercaptopurine (sometimes called 6-mercaptopurine or 6-MP) is more wide prescribed in the USA.

They have been used to treat IBD for many years and have been shown to be very effective at reducing symptoms and maintaining remission in both Crohn's and UC. However, they act slowly and it may be several months before you notice any benefit.

Because azathioprine and mercaptopurine are immunosuppressants and affect the way the immune system works, people taking them tend to be more susceptible to infections, such as cold and flu. So you will be advised to have an annual flu vaccination. You may also need an extra vaccination against infectious diseases such as measles, chickenpox or shingles, and some forms of pneumonia as these illnesses can be more severe in people on immunosuppressants.

These drugs also increase the skin's sensitivity to sunlight and the risk of developing some types of skin cancer, so it is best to use sunblock and to avoid sunlamps or sunbeds.

“When I started on Azathioprine I was a bit concerned about keeping out of the sun and so on, but I've been on it for four years now, no side effects yet, and my employers are really good about time off for check ups.” Patrick

Other side effects of azathioprine and mercaptopurine can include:

- especially at first, nausea, or a flu-like illness with fever, and general aches and pains
- a sudden worsening of diarrhoea
- less commonly, inflammation of the liver, and/or the pancreas (pancreatitis) anaemia
- suppression of the bone marrow function which can lead to anaemia
- a slightly increased risk of developing lymphoma (a type of cancer affecting the lymph glands). However, research suggests that for most people taking these drugs the risk is very small and likely to be outweighed by the potential benefits.

For more details, see our drug treatment information sheet, **Azathioprine and Mercaptopurine**.

Regular monitoring is important for people taking immunosuppressants. At first you will need frequent blood tests, usually weekly or fortnightly. As you become used to the treatment you will probably move to having a blood test every two to three months, for as long as you are on azathioprine or mercaptopurine.

Methotrexate

Methotrexate is used to help bring about and maintain remission in people with Crohn's who are steroid dependent (cannot stop steroid treatment without having a relapse) and who do not respond well to azathioprine or 6-MP. Occasionally, it is used to treat UC, but there is less evidence of its effectiveness for this condition.

Methotrexate is taken only once a week, as tablets or by injection. Like azathioprine, is slow acting and it may take up to three months before symptoms improve.

As an immunosuppressant, methotrexate can cause a greater susceptibility to infections. It also increases the skin's sensitivity to sunlight and the risk of developing some types of skin cancer.

Other side effects can include:

- nausea and diarrhoea, especially at the beginning of treatment
- more rarely, suppression of the bone marrow production
- liver and kidney problems.

If you are a woman it is important not to become pregnant while you or your partner are taking methotrexate, as it can have serious effects on the unborn baby. You should stop taking methotrexate at least six months before trying to conceive.

For more details, see our drug treatment information sheet, [Methotrexate](#).

You will need to have blood tests and tests to check liver and kidney function before starting methotrexate, and then regular blood tests while you continue on methotrexate treatment.

Mycophenolate mofetil

Mycophenolate mofetil has been used for many years for cancer treatment and after organ transplants. More recently it has been used for people with IBD who do not respond well to other immunosuppressants or biologics. Some studies have found it to be effective in bringing about steroid-free remission, but more research is needed in this area.

The possible side effects are similar to those with methotrexate and you will need regular blood checks.

Ciclosporin

Ciclosporin is used widely for preventing the body's rejection of organ transplants. It is also useful in various conditions caused by a reaction of the body against its own tissues. In IBD, ciclosporin is generally used to treat severe UC flare-ups and may help to avoid or delay surgery to remove the large bowel. It can be a useful treatment while a slower acting drug, such as azathioprine, is building up its effectiveness.

Ciclosporin is usually given intravenously and in hospital to begin with, but may then be given as an oral preparation (in capsule or as a drink), over a period of three to six months.

Ciclosporin can cause a number of side effects including:

- nausea, headache, tingling of the hands or feet
- growth of hair on the face
- swollen gums
- reduced kidney function (usually temporary) and a rise in blood pressure.

You will be given regular blood and kidney function tests while you are being treated with ciclosporin – probably weekly at first, and then about once a month.

Tacrolimus

Tacrolimus is similar in action to ciclosporin but may be used for severe Crohn's as well as for UC. It works quickly and can be taken with azathioprine until this slower acting drug becomes effective. Tacrolimus can be taken orally from the start so does not necessarily require a hospital stay. It is also available as an ointment and may be helpful for Crohn's in the anal area and UC in the rectum.

Tacrolimus taken orally tends to have side effects similar to those of ciclosporin.

“I was advised to go on infliximab after a flare-up that lasted six months. It wasn't a decision I took lightly, but it was the right one for me, and saved me from surgery.” Rachel

Biologics (Anti-TNF Drugs)

Biologics are the newest group of drugs to be used in IBD. They are sometimes called 'anti-TNF' drugs because most of them work by targeting a protein in the body called TNF-alpha. Your body naturally produces TNF-alpha as part of its immune response, but it is thought that over-production of TNF-alpha is partly responsible for the chronic inflammation found in IBD. Anti-TNF drugs bind to TNF-alpha, helping to prevent inflammation and relieve the symptoms of IBD.

The two most commonly used biologics are:

- Infliximab (Remicade)
- Adalimumab (Humira).

Other biologics that may in time be licensed for IBD in the UK include:

- Certolizumab pegol (already approved in the UK as a treatment for arthritis)
- Golimumab
- Vedolizumab (This is a slightly different type of biologic. It works by blocking white blood cells, rather than by binding to TNF-alpha cells).

How are biologics used in IBD?

In general, biologics are prescribed for severe IBD when standard treatments have not worked. However there is some evidence that earlier use of biologics or combined therapies (biologics plus immunosuppressants) may be helpful, especially in Crohn's Disease. Research is continuing in these areas, and on the comparative effectiveness of the newer biologics.

Infliximab

Currently infliximab is most commonly used to treat severe active Crohn's that has not responded to steroids or immunosuppressants. It may also be used to treat severe UC as an alternative to ciclosporin.

Not everyone responds to infliximab, but a number of studies have shown that it can be very effective at improving symptoms, bringing about remission and reducing the need for surgery.

Infliximab is given by intravenous infusion (a drip), over several hours, usually in hospital or a day clinic. If you respond well you will usually be prescribed a course of infusions. Your treatment should be reviewed at least every 12 months.

It is important to talk to your IBD specialist before you start infliximab about its possible benefits and risks, including the potential for side effects. You will also need to have a series of checks for pre-existing conditions such as tuberculosis (TB) as infliximab can reactivate this.

Other side effects can include:

- reactions to the infusion
- greater susceptibility to infections
- a worsening of a pre-existing heart condition
- skin rashes
- joint inflammation
- more rarely, liver or nervous system problems
- an increased risk of some cancers including lymphoma (cancer of the lymph glands).

For more details on infliximab and how it works, see our drug treatment information sheet, [Infliximab](#).

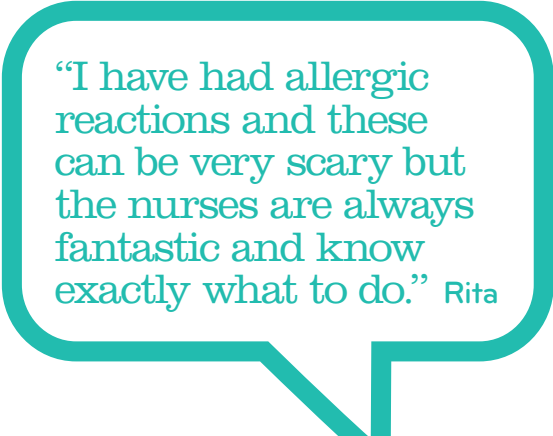
Your health will be carefully monitored while you are on infliximab and the clinic staff or your IBD team should be able to help with any queries and concerns.

Adalimumab

Adalimumab is a more recent synthetic (man-made) anti-TNF drug. It is mainly used for severe Crohn's, although it is licensed to treat UC in some circumstances.

Adalimumab, like infliximab, has been shown to be effective at controlling flare-ups and at treating Crohn's fistulas. It can also be useful when infliximab has failed. Adalimumab is injected subcutaneously (under the skin), so is easier to take at home.

A common side effect is pain at the injection site, sometimes with redness, itching and swelling. Other side effects are similar to those with infliximab and you will need similar checks and monitoring. For more information see our drug treatment information sheet, [Adalimumab](#).



“I have had allergic reactions and these can be very scary but the nurses are always fantastic and know exactly what to do.” Rita

Symptomatic Drugs

There are a number of drugs available, often 'over the counter' (without a prescription), which can be very effective at treating symptoms such as diarrhoea, constipation and pain. These are known as symptomatic drugs. However, they do not reduce the inflammation causing these symptoms.

It is best to check with your doctor or IBD specialist before taking any of these drugs or medicines, in case they are not suitable for your type of IBD or may interact with your IBD medication.

Antidiarrhoeals

Codeine phosphate, loperamide (Imodium, Arret), and diphenoxylate (Lomotil) are all drugs which reduce diarrhoea by slowing down the contractions (muscle activity) of the gut, so food takes longer to pass through your system. This allows more time for the water produced by the digestive processes to be reabsorbed by the colon, and for the stools to become firmer and less urgent.

This means that abdominal cramps and constipation can be a side effect of these antidiarrhoeals. Sometimes they can cause hard stools that are difficult or painful to pass. Codeine can also cause nausea and drowsiness, and may encourage dependence if taken in relatively large doses for a prolonged period. If codeine is suddenly withdrawn it may cause a general feeling of being unwell or of anxiety.

Loperamide is generally considered the safest antidiarrhoeal – but should not be taken by anyone having a significant UC flare-up.

Bile salt binders

Bile salts are naturally released from the liver to help with digestion, and are then reabsorbed in the ileum (the lower part of the small intestine). If you have Crohn's Disease and have had surgery to remove the ileum, higher levels of bile salts can drain into the colon and cause watery diarrhoea.

Bile salt binders such as cholestyramine (Questran), colestipol (Colestid) and colesevalam combine with the bile salts and prevent them from reaching the colon. This helps reduce the diarrhoea. Cholestyramine and colestipol are in powder form and can be mixed with water, juice or soft food. Colesevalam comes as a tablet, which some people find more convenient.

Possible side effects include indigestion, abdominal bloating and discomfort, nausea and constipation. Bile salt binders can also affect how well other drugs are absorbed so should not be taken within four hours of other medication.

Bulking agents

Bulking agents or 'bulk formers' contain a water absorbent plant fibre – usually ispaghula or stercula. Popular brands include Fybogel, Isogel, and Normacol. These come as granules which, when taken with plenty of water, swell up inside the bowel and thicken liquid or soften hard stools. The fibre also provides enough bulk for the bowel to work normally.

Bulking agents can be particularly helpful in treating diarrhoea if you have had surgery to remove your colon in which your small intestine is joined to your rectum (colectomy with ileo-rectal anastomosis). They can also be useful to soften the hard motions you can get with UC of the lower colon or of the rectum. However, you should not take bulking agents if you have a stricture (narrowing) of the bowel, as sometimes happens with Crohn's Disease.

Laxatives

Constipation can also be a symptom of IBD, especially of proctitis (inflammation in the rectum). Laxatives help to relieve constipation. Osmotic laxatives, such as Movicol, which contain a compound known as macrogol, are usually considered the best type of laxative for people with IBD. These increase the amount of water in the large bowel and make the stools softer and easier to pass. However, laxatives can also cause wind and stomach cramps, especially at the start of treatment.

Anti-spasmodics

Anti-spasmodics such as mebeverine (Colofac), hyoscine butylbromide (Buscopan) and alverine citrate (Spasmonal) reduce painful gut cramps or spasms by relaxing the intestinal muscles. These medicines are most likely to be recommended for people with Irritable Bowel Syndrome (IBS), but they may also be helpful for the IBS-like symptoms sometimes experienced by people with IBD.

Analgesics (painkillers)

If you need to take over the counter painkillers it is probably best to avoid ibuprofen and diclofenac. These are what are known as non-steroidal anti-inflammatory drugs (NSAIDs). While they can be very effective for pain in the joints and spine, which may affect some people with IBD, there is some evidence that they may make other IBD symptoms worse or possibly trigger a flare up. Some people may also be affected by aspirin, so for simple pain relief paracetamol is probably the safest option for people with IBD.

If you find you have ongoing problems with pain and need to keep taking painkillers, talk to your doctor about your symptoms as other treatment may be more appropriate.

Antibiotics

Antibiotics kill or stop the growth of bacteria, and are sometimes used for IBD.

They have a well-established role in helping to treat complications of Crohn's Disease such as abscesses and fistulas (abnormal connections between the bowel and the skin or other organs). Antibiotics have also been tried as a treatment for other IBD symptoms, often in conjunction with other drugs. This use is based on the theory that while the exact cause of IBD is still unknown, it seems very likely that it involves an abnormal reaction of the immune system to intestinal bacteria. Antibiotics can reduce these bacteria, and it is also known that some antibiotics may have an immunosuppressant effect.

Most of the evidence suggests that antibiotics are not that effective as a treatment for Crohn's flare-ups or as maintenance treatment. However, a recent review concluded that the two most commonly used antibiotics, metronidazole and ciprofloxacin, may be helpful for treating active Crohn's Colitis (Crohn's in the colon), and after surgery. It also confirmed the effectiveness of antibiotics for abscesses and fistulas, and in helping to treat pouchitis (inflammation of an ileo-anal pouch, a complication that sometimes follows surgery for UC).

Metronidazole (Flagyl)

This is the most commonly prescribed antibiotic for Crohn's Disease. It is usually taken as a tablet, but it can be taken as a suppository or be given by injection. Side-effects may include nausea, lack of appetite and a metallic taste in the mouth. More rarely, long term use can cause nerve damage and a tingling in the hands and feet.

It is best to avoid drinking alcohol while taking metronidazole and for at least two days following the last dose, as there can be an interaction.

Ciprofloxacin

Ciprofloxacin is also used for the treatment of Crohn's and has been found to be as effective as metronidazole, with fewer side effects. It too is normally taken as a tablet, but can be given by injection. Common side effects include nausea and diarrhoea, and it may interact with some of the other medications used for IBD.

Other Common Questions

Can other medicines affect IBD drugs?

It is possible that other drugs or medicine might interact with your IBD medication – and that this interaction could make your treatment less (or more) effective, or perhaps alter its side effects.

So it is very important to tell your doctor and specialist IBD team about any other medicines, treatments or therapies you are taking. This includes not only medication for other conditions but also any over-the-counter, herbal or complementary medicines. It may also be a good idea to carry a list of all your medicines, including dosages, to make sure you don't forget to mention something.

Can IBD drugs affect fertility or pregnancy?

In general, the evidence suggests that active Crohn's or UC may do more harm to the growing baby than most IBD medicines. So most women with IBD are advised to continue taking their IBD medication during pregnancy. However, a small number of the drugs used for IBD should not be taken when trying to conceive a baby or by women once they are pregnant. Male fertility can also be affected. So if you are planning to have a baby, or especially if you are already pregnant, it is important to check with your IBD team whether you need to change your drug treatment.

More details are given in our information sheets **Fertility and IBD** and **Pregnancy and IBD**, which also looks at IBD drugs and breastfeeding.

Does it matter if I don't take my drugs?

When you are first prescribed medication for your IBD you will probably find it easy to remember to take it as exactly as instructed, especially if it has an immediate effect on your symptoms. Once you feel better, you may be less focused on taking your tablets or applying your topical medicines, and start to forget the odd dose. Or you may be tempted to stop taking it altogether, now you don't feel so ill, thinking you don't need it. A lot of people get fed up with having to take pills every day, maybe even several times a day – or just feel they would rather do without such a regular reminder of their IBD.

These are understandable feelings, but many studies have shown that maintenance therapy (continuing to take medication even when you are well) is important and does reduce the chance of a flare-up. It can also mean that you are less likely to need to move on to taking additional or stronger drugs. There is also some evidence that some IBD drugs may help reduce the chances of developing another condition. For example, 5-ASA drugs may reduce the slightly increased risk of bowel cancer for some people with IBD.

If you do miss taking a dose, don't panic – the Patient Information Leaflet that comes with your medication should tell you what to do. If you can't find this, check with your doctor or nurse.

If you are prone to forgetting things like taking tablets, try and make taking them part of your daily routine, like brushing your teeth. Our leaflet, [Staying well with IBD](#) has some other suggestions of ways to remind yourself.

Can I alter the dose myself?

It is usually important to take the full dose to get the full effect. Some medicines must also be taken in particular ways – for example, at particular times of day, on an empty stomach, or with or after food. If your lifestyle makes it difficult for you to do this, try discussing it with your doctor. It may be that some compromise or alteration in the dose is possible. For example, if you are taking 5-ASAs you may be able to change to taking the full dose just once a day, which some people find easier.

It is also worth talking to your doctor and/or your IBD nurse about any other worries you have about the amount of medicine you are taking, or concerns about side effects. It may be that they can reassure you, or again, suggest changes that you find helpful.

There may be other options such as different size doses as mentioned. Or it may be that a change in brand or form of drug would suit you better. With some drugs just taking them at a different time of day can make a difference, for example, taking steroids before 11am can help reduce side effects because this follows the natural rhythm of steroids in the body.

You may be feeling that as someone who has lived with an ongoing medical condition for some time, perhaps years, you are now quite an expert on what works for you. And, as a result, you may feel you would like to take a more active part in your treatment and be able to adjust your own medication when your symptoms begin to get worse or better. If so, discuss this with your doctor or IBD specialists. You may find that they are happy to include this idea in a plan around what to do in the event of a flare-up.

How safe are IBD drugs?

Before drugs are licensed in the UK, they go through rigorous research and clinical trials on thousands of people. This process can take many years. Drugs are licensed by the Government's Medicines and Healthcare products Regulatory Agency (MHRA). The MHRA is responsible for regulating all medicines and medical devices in the UK, ensuring they work and are acceptably safe. It gives permission and sets strict safety criteria for all clinical trials in the UK. It demands very high standards from medicines manufacturers, and will only issue a licence when it is satisfied that a medicine meets all its safety and quality requirements.

The MHRA also continues to review the safety of drugs after licensing. As part of this process, it has introduced a Yellow Card scheme to encourage people to report any suspected side-effects from medicines. For more information on the regulation and monitoring of medicines see *Medicines & Medical Devices Regulation: What you need to know* available to download from the MHRA website at www.mhra.gov.uk. To make a yellow card report go to <http://yellowcard.mhra.gov.uk>. More contact details for the MRHA are given at the end of this booklet.

Can I take part in clinical trials?

To take part in a clinical trial you may have to be referred by your doctor – and it is always a good idea to discuss any trial you are thinking of taking part in with your doctor or IBD specialist, before you take your decision. It is important to be sure that you fully understand all the potential benefits and risks the trial may have for you. For further information on how to find out about clinical trials including questions to ask, see the NHS Choices website: www.nhs.uk/conditions/clinical-trials.

Who can I talk to about my treatment?

Many hospitals have a specialist IBD nurse for information and support. It can be very helpful to build a good relationship with your healthcare team, so that you can ask about your options and discuss any concerns and worries. Talking openly about your feelings and symptoms will help them understand your needs more fully and make sure they are providing the right treatment.

You can also talk to your local pharmacist, who has professional knowledge and should also be able to answer any questions you have about any drugs and medicines.

At Crohn's and Colitis UK we have a telephone information line and a support line. All our information leaflets and booklets are available on our website as well as from the office. All medicines come with a 'Patient Information Leaflet'. These are produced by the manufacturer and approved by the MHRA. They include instructions on how to take the medicine and information on possible side-effects not all of which are mentioned in this booklet. For more details and copies of Patient Information Leaflets go to the Electronic Medicines Compendium at <https://www.medicines.org.uk>.

For more detailed written information look at the 'Patient Information Leaflet' that comes with every medicine. You can find details of companies that make prescription drugs on the Association of British Pharmaceutical Industry website: www.abpi.org.uk. For companies that make over-the-counter drugs, (drugs you can buy without a prescription) go to the Proprietary Association of Great Britain (PAGB) website: www.pagb.co.uk. See our list of **Other useful organisations** for more details.

NHS Choices has a wide range of useful information about Crohn's Disease and Ulcerative Colitis, including information about drugs and medicines, at www.nhs.uk.

Help and support from Crohn's and Colitis UK

All our booklets and information sheets are available to download from our website: 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: 0845 130 2233

open Monday to Friday, 10am to 1pm, 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 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: 0845 130 3344

open Monday to Friday, 1pm to 3.30pm and 6.30pm to 9pm, excluding English bank holidays. This is a confidential, supportive listening service, which is provided by trained volunteers and is 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.

Other useful organisations

Bladder and Bowel Foundation

www.bladderandbowelfoundation.org

0845 345 0165

Colostomy Association

www.colostomyassociation.org.uk

0800 328 4257

Core – Fighting Gut and Liver Disease

www.corecharity.org.uk

020 7486 0341

Crohn's in Childhood Research Association

www.cicra.org

020 8949 6209

IA – The Ileostomy and Internal Pouch Support Group

www.iasupport.org

0800 0184 724

MHRA

www.mhra.gov.uk

Association of British Pharmaceutical Industry

www.abpi.org.uk

020 7242 8331

Proprietary Association of Great Britain (PAGB)

www.pagb.co.uk

0870 890 4333

How we write our information

Crohn's and Colitis UK is an accredited member of the Information Standard scheme for health and social care information producers. This means that we have passed a rigorous assessment to ensure that our information is

- clear
- accurate
- balanced
- evidence-based and
- up-to-date

For more information see our website at www.crohnsandcolitis.org.uk and the Information Standard website at www.theinformationstandard.org.

How to contact us with comments or questions about this booklet

If you would like more information about the sources of evidence on which this publication is based, or details of any conflicts of interest, or if you have any comments or suggestions for improvement, please email the Publications Team at **publications@crohnsandcolitis.org.uk** or write to us at the address below.

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You can also comment using the Publications Feedback page on our website, or by contacting us through the Information Line on **0845 130 2233**.



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