

Patient information from the BMJ Group

Smoking

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Smoking

Smoking can harm your health, but it's often difficult to stop. This is because many people who smoke get addicted to nicotine, a chemical in tobacco. It's good to know that there are treatments available that can help you give up cigarettes.

We've brought together the best research about nicotine addiction and weighed up the evidence about how to treat it. You can use our information to talk to your GP or pharmacist and decide which treatments are best for you.

What is nicotine addiction?

If you smoke you've probably become addicted to nicotine, a chemical in tobacco. This makes it very hard to give up smoking. Most people don't manage to stop the first time they try. You may need to try several times before you're able to stop smoking for good.



If you smoke, you've probably become addicted to nicotine, a chemical in tobacco.

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Fortunately, there are good treatments that can help you stop. These treatments give you a better chance of stopping smoking than if you rely on willpower alone.

The main thing is, don't give up trying to stop. Half of all smokers eventually manage to stop smoking.

Key points about smoking

- Smoking is the biggest cause of death and illness in the UK. More than 120,000 people die each year from diseases caused by smoking.
- Stopping smoking reduces your chances of getting heart disease and cancer, and it may help you live longer.
- Most smokers find it hard to stop because they are addicted to nicotine. Addiction is a serious condition, and you can get help to overcome it.
- You have a better chance of stopping if you use nicotine replacement therapy and if you get professional help.
- An antidepressant drug called bupropion (brand name Zyban) helps many people stop. This drug can help you stop even if you aren't depressed.
- A newer drug called varenicline (brand name Champix) may work better than bupropion.

Your body and nicotine

Most people who smoke are addicted to nicotine. This is a chemical that's found in tobacco. It doesn't matter whether you smoke cigarettes, cigars, or a pipe, or if you chew tobacco. It's the nicotine that gives you a 'hit'. And it's because your body needs those hits from nicotine to feel 'normal' and well that you keep up your habit.

- Nicotine reaches your brain about seven seconds after you take a puff on a cigarette. ^[1]
- It helps your brain make a chemical called dopamine. Dopamine plays a part in making us feel pleasure. ^[2]
- People who smoke say it makes them feel relaxed, and there's some evidence that nicotine may make you feel more alert.
- It may also help you concentrate and put you in a better mood.

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If you're addicted, from time to time you feel that you have to have a smoke. You crave a cigarette. You find it hard to stop smoking, or you get **withdrawal symptoms** when you try to stop. You might feel miserable or find it hard to concentrate, for example.

You might want to read more about [what we know about nicotine](#) and why it's so easy to get addicted.



Young people may not realise smoking is addictive.

Starting young

If you smoke, the chances are you started when you were a teenager, probably because your friends smoked. Most teenagers say that another reason they smoke is because it helps them feel less stressed. ^[3]

About 1 in 8 boys who smoke say they do it because it's 'cool', while 1 in 6 girls say they smoke to stay slim. ^[3]

Many young people try out smoking at some point. A big problem is that you may not realise smoking is addictive until you're hooked. ^[4]

Some myths about smoking

"I'm not addicted. I only smoke when I see friends who smoke. I could give up at any time."

If this describes you, you may not be physically addicted, but you're probably psychologically addicted. If you need to smoke when your friends smoke, you'll find it hard to stop.

- Even if you're not addicted, smoking still harms your health.
- Smoking can hurt people close to you, too. People can breathe in smoke from your cigarettes. This 'second-hand' smoke can cause breathing problems in children. And adults can get lung cancer from smoke without ever having a cigarette. ^[5]

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"Smoking 'light' cigarettes is less harmful."

In the European Union, tobacco manufacturers are no longer allowed to use the words 'light' or 'mild' to describe cigarettes that are low in tar or nicotine. That's because these cigarettes are no less harmful to your health.^[6] Here's why.

- If you smoke regularly (even just a few cigarettes a week) you're still addicted.
- You get all the same harmful chemicals from 'light' cigarettes as you get from standard ones.
- 'Light' cigarettes may actually be more harmful. If the cigarette gives you less nicotine than your body is used to, you'll have to smoke more or inhale more deeply to get the same effect.^[7]
- So, you may be sucking harmful chemicals deeper into your lungs than you would if you smoked stronger brands.

"I smoke cigars and don't inhale, so I won't get lung cancer."

Although most people don't inhale when they drag on a cigar, they still hold the smoke in their mouth, and they also breathe in smoke from the air around them.^[8] So, the poisonous chemicals in tobacco smoke get into their lungs and their body.

- Cigar smokers are just as likely to get mouth and throat cancer as cigarette smokers.
- They're also much more likely to get lung cancer and other diseases linked to smoking than people who don't smoke.

Other chemicals in tobacco

There may be other chemicals in tobacco smoke that play a part in addiction.^[2] But researchers are only just beginning to find out about them.

Who gets addicted to nicotine?

Anyone who smokes can get addicted to nicotine. However, certain things seem to increase a person's chances of becoming addicted. Doctors call these risk factors. The risk factors for getting addicted to nicotine include:^[3]

- Smoking as a teenager
- Coming from a poorer background
- Family problems

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- Feeling depressed
- Being physically or sexually abused
- Having parents who smoke.

Other things seem to protect against getting addicted. These include: ^[3]

- Being close to your parents
- Taking part in activities outside school or work, such as sport.

What are the symptoms of nicotine addiction?

If you're addicted to something you feel a strong need for it. If you don't have it, you get unpleasant symptoms. These are known as withdrawal symptoms.

Many drugs cause withdrawal symptoms. For example, people who are addicted to alcohol can get the 'shakes' if they suddenly stop drinking. They sweat and tremble because their body isn't getting its daily dose of alcohol.

In the same way, if you're addicted to nicotine and you go longer than usual without a cigarette, you get withdrawal symptoms. Withdrawal can make you: ^[12]

- Sad and depressed
- Irritable
- Anxious
- Unable to concentrate
- Restless
- Want to eat
- Crave a cigarette.

It's these bad feelings that make you reach for another cigarette, because you know that smoking makes them go away. You don't get these feelings while you're having the cigarette or for some time afterwards.

But it's important to remember that once you break your addiction, you stop getting withdrawal symptoms. You'll stop needing a cigarette to make yourself feel good. And there are good treatments that can help you to handle the withdrawal symptoms, while

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you're trying to give up. To find out more, see [What treatments work for nicotine addiction?](#)

How common is nicotine addiction?

Around 12.5 million adults in the UK smoke cigarettes. That's 20 in every 100 people aged 16 and over. ^[13]

Many smokers are young. Among secondary school children aged 11 to 15, 12 in every 100 girls and 9 in every 100 boys are regular smokers. ^[14]

The good news is that a smaller percentage of the population smokes now than 30 years ago. In 1974, for example, nearly one-half of the people in the UK smoked. ^[15]

Also, people aren't smoking as many cigarettes as they used to. There are fewer heavy smokers (people who smoke more than 24 cigarettes a day) and more light smokers (those who smoke fewer than 15 cigarettes a day). ^[15]

But this downwards trend in smoking has slowed. The proportion of people smoking has only gone down a little since about 1994.

Here are some figures about smoking.

- More men than women smoke. But the gap has closed in the last 60 years.
- In 1948, about 80 in every 100 men and 40 in every 100 women smoked. ^[16]
- In 1974, 51 in every 100 men and 41 in every 100 women smoked. ^[17]
- In 2006, 23 in every 100 men and 21 in every 100 women smoked. ^[18]

Smoking is the biggest cause of death and illness in the UK. ^[19]

- More than 120,000 people in the UK die each year from a disease that's caused by smoking.
- One in five deaths in the UK is due to smoking.
- If you smoke regularly, you have a 50-50 chance of dying from a disease that's caused by smoking.
- The most common diseases caused by smoking are lung cancer, heart disease, and stroke. Many other cancers are also linked to smoking.

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What treatments work for nicotine addiction?

Nicotine is so addictive that many smokers who want to stop just can't give up cigarettes. Even with help, stopping can be hard. You may need to try several times before you stop for good.

The main thing is to keep trying and to get help if you need it. There are several treatments available, and your GP or pharmacist will be happy to help.

Key points about treatments to help you stop smoking

- There are several good treatments to help smokers stop.
- Getting professional help from your doctor, a nurse, or a trained counsellor can help you stop smoking.
- If you smoke more than 10 cigarettes a day, nicotine replacement might help you give up. Nicotine patches, gum, nasal spray, lozenges, tablets that you put under your tongue, sprays, and inhalers are all forms of this treatment.
- A drug called bupropion (brand name Zyban) helps many people give up smoking.
- A drug called varenicline (brand name Champix) may work better than bupropion.
- The NHS offers a smoking helpline, which smokers and their families can call for free, expert advice. It's open from 7 a.m. to 11 p.m. every day. The number is 0800 022 4 332.

The National Institute for Health and Care Excellence (NICE), which makes recommendations about treatments to the government, has published guidance on how doctors and nurses can help people give up smoking.^[42] It says that people who are interested in giving up smoking should be referred to a local NHS Stop Smoking service or a similar programme, or be offered nicotine replacement therapy or other drugs to help them give up.

How to get smoking cessation treatments on the NHS

The National Institute for Health and Care Excellence (or NICE for short), the government body that decides which treatments should be available on the NHS, has approved the use of nicotine replacement therapy (sometimes called NRT), bupropion, and varenicline to help people stop smoking. Your GP can prescribe these treatments to help you stop smoking only if:^[43]

- You have a target stop date. This means you have made a commitment to stop smoking on or before a certain date
- You're also offered counselling and support

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- You're over 12 years of age for NRT, or over 18 for bupropion or varenicline. ^[44] Bupropion and varenicline aren't licensed for use by young people.

Your first prescription will be enough to last only two weeks after your target stop date. You'll be given a second prescription only if you show you're still trying to stop.

You'll have to wait six months for another prescription if your attempt to stop fails. But if something stressful happened that interfered with your attempt to stop, you may be able to try again sooner.

You won't be given NRT and tablets together. You need to decide with your doctor whether NRT, varenicline, or bupropion is the best treatment for you.

You can also buy NRT products from a pharmacy. But if you don't pay for your NHS prescriptions, you may find it helpful to have them on prescription from your doctor.

Which treatments work best? We've looked at the best research and given a rating for each treatment according to how well it works.

For help in deciding which treatment is best for you, see [How to use research to support your treatment decisions](#).

Treatment Group 1

Treatments to help you stop smoking

Treatments that work

- [Getting professional help](#) : Getting advice and encouragement from a GP, nurse, or trained counsellor really helps, especially if you are pregnant or at high risk of an illness caused by smoking. You can get advice face-to-face, on the telephone, or from self-help materials, such as leaflets. [More...](#)
- [Nicotine replacement therapy](#) : After you stop smoking cigarettes, you can ease withdrawal symptoms by using nicotine gum, lozenges, tablets that you put under your tongue, nasal spray, patches, or an inhaler. [More...](#)
- [Bupropion](#) : Bupropion was originally used to treat depression, but it's also used now to help people stop smoking. [More...](#)
- [Varenicline](#) : This drug works by blocking the pleasant effects of nicotine in the body. [More...](#)

Treatments that need further study

- [Exercise](#) : Doing some kind of exercise may help you to stop smoking and handle withdrawal symptoms. [More...](#)

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Treatments that are likely to be ineffective or harmful

- [Acupuncture](#) : Thin needles are inserted into the skin at specific points in the body. [More...](#)
- [Drugs that treat anxiety](#) : These drugs have been tried in people who are trying to stop smoking. [More...](#)

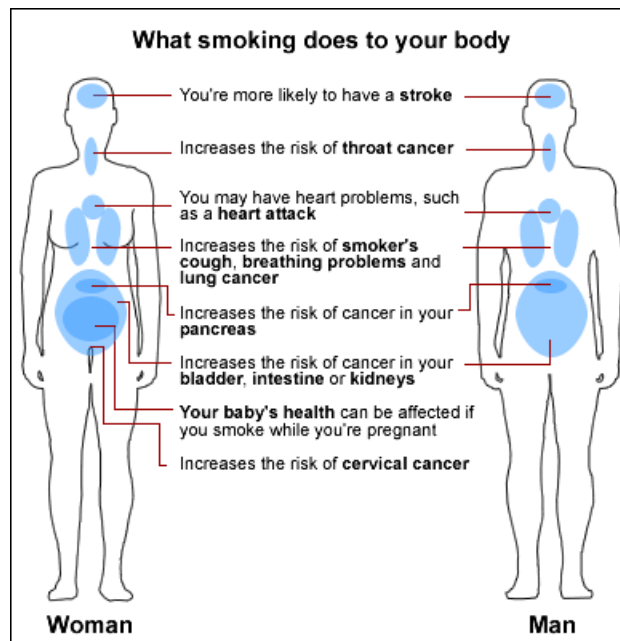
Other treatments

Lots of other treatments have been tried to see if they help smokers quit. We've included some information on these treatments, because you might be interested in them. However, we haven't looked at the research in enough detail yet to be sure how well these treatments work.

- [Antidepressants](#)
- [Clonidine](#)
- [Hypnotherapy](#)

What will happen to me?

Smoking is bad for your health. It's harmful because there are so many things in tobacco smoke that can harm your body. The most common diseases caused by smoking are lung cancer, heart disease, and stroke.



Every time you breathe in tobacco smoke, you breathe in poisons that harm your body.

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How smoking damages your body

There are more than 4,000 chemicals in tobacco smoke. Many of these are poisons. At least 43 of these chemicals cause cancer. Every time you breathe in tobacco smoke, you breathe in poisons that harm your body.^[20] Smoke also contains tar and harmful gases, such as carbon monoxide.

- The tar and chemicals in tobacco smoke cause your lungs to make a thick fluid called mucus. It clogs your lungs and can cause a 'smoker's cough'.
- Your lungs are lined with tiny hairs that help 'sweep' germs and other things out of your lungs. Those hairs can't move easily when you have mucus and tar in your lungs. So you're more likely to get an **infection** in your lungs.
- The chemicals in smoke make the walls of your airways swell and get thicker. This makes the airways narrower, so you get less air when you take a breath.
- The walls of your lungs have many tiny bags (or sacs) that hold air. Cigarette smoke damages those sacs. When that happens, less oxygen gets into your blood, and you get out of breath and get tired more easily. Eventually, you can get a lung disease called **chronic obstructive pulmonary disease (COPD)** . If you have this, it gets harder and harder for you to breathe.
- The chemicals in smoke can lead to lung cancer. The chemicals damage cells in your lungs, and the damaged cells can then become cancer cells. The more you smoke, the greater your chance of getting lung cancer. If you smoke cigars or a pipe, you also have a higher chance of getting lung cancer than people who don't smoke.^[8] To learn more, see our articles on [lung cancer](#) .
- Carbon monoxide from cigarette smoke gets into your blood. It reduces the amount of oxygen your blood can carry. This means your heart has to work harder to get enough oxygen to all the cells in your body. The extra work puts a strain on your heart, which over many years can lead to heart problems.
- Some particles in smoke seem to help **'bad' cholesterol** in your blood stick to your blood vessels. When cholesterol builds up in the blood vessels, it makes them narrower and increases the chances that you'll have a heart attack or **stroke** .

If you keep smoking

We can't say for certain what will happen to you as an individual if you keep smoking. Everyone is different. This is what we know from studies of people who smoked.

- About one-half of all smokers die of a disease that's caused by smoking. The big killers are lung cancer, heart disease, and stroke.^[19]

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- On average, the life of someone who smokes is 16 years shorter than the life of someone who doesn't smoke. ^[19]
- If you smoke, you're more likely to get cancer in your lungs, intestine , throat, pancreas , kidneys , bladder , or cervix . ^[19]
- Smoking is the most important cause of chronic obstructive pulmonary disease (COPD) . ^[19]
- Smoking causes more than one-quarter of all deaths from cancer in the UK. ^[5]

One long-term study looked at more than 100,000 women, and followed them for 24 years. It showed that smokers were almost three times more likely to die during the 24-year study, compared to non-smokers. The study also showed that, 20 years after stopping, the chances of death decreased to be the same as someone who'd never smoked. ^[21]

What smoking does to other people

If you smoke when you're pregnant, you can damage your baby's health. The chemicals in smoke keep babies from getting all the oxygen and nutrients they need to grow. Here is what we know from the research.

- Your baby is likely to weigh less than it would have if you hadn't smoked. Infants who don't weigh enough are likely to have breathing problems.
- Your baby may be born early and need special care.
- As your baby grows, he or she is more likely to get asthma .
- As many as 1 in 10 infant deaths may be related to the mother smoking while she was pregnant.

Breathing in smoke from other people's cigarettes can cause health problems in people who don't smoke. Second-hand smoke can: ^[22]

- Cause lung cancer and heart problems (such as heart attacks and stroke) in people who don't smoke
- Make children's asthma worse
- Cause pneumonia , ear infections, bronchitis , coughing, and wheezing in young children
- Lead to lung infections in children.

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If you stop

Almost as soon as you stop smoking, your body starts to clear itself of the poisonous chemicals found in smoke. ^[23]

Here's what happens.

- Within hours. The amount of carbon monoxide in your blood will return to normal within 48 hours. (Carbon monoxide keeps oxygen from getting into your blood and makes it harder for you to breathe.)
- Within days. Your sense of taste and smell will get better.
- In one to two months. If you have a long-term cough, symptoms like coughing, producing phlegm, and wheezing will improve.
- In one year. If you have COPD (a condition which makes it hard for you to breathe), your breathing will get easier.
- In five years. For women, your risk of cervical cancer drops to the same as someone who's never smoked.
- In 10 to 15 years. Your risk of coronary heart disease (which causes heart attacks) is about the same as someone who's never smoked.
- In 10 to 20 years. Your risk of lung cancer falls to 70 percent of what it would be if you kept smoking.

The sooner you stop smoking, the better. If you stop smoking before the age of 35, you avoid 90 percent of the health problems linked with smoking. ^[24] But even if you stop after the age of 50, you reduce your chances of dying from a disease linked to smoking.

Stopping smoking increases your chances of living longer. On average, if you give up smoking: ^[25]

- At age 30, you'll gain an extra 10 years of life
- At age 40, you'll gain an extra 9 years of life
- At age 50, you'll gain an extra 6 years of life
- At age 60, you'll gain an extra 3 years of life.

See [Other ways stopping helps](#) for more information.

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The downside of stopping

Giving up smoking also has its problems.

- You may get depressed, feel anxious, or find it harder to concentrate. ^[12]
- There's some evidence that smokers who stop get more sore throats, coughs, sneezing, and other cold symptoms than those who don't. ^[26] These symptoms seem to last for just two weeks after stopping and then they go away.
- For many people the biggest drawback to stopping smoking is putting on weight. On average, one year after stopping smoking people have gained about 4.2 kilograms (10 pounds). Most of this weight is gained in the first three months after stopping. ^[27] There is some evidence that people who exercise while stopping smoking gain less weight. ^[28]

Treatments:

Getting professional help

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[How good is the research on getting professional help?](#)

This information is for people who want to stop smoking. It looks at how help and advice from a health professional can make it easier to stop smoking. It is based on the best and most up-to-date research.

Does it work?

Yes. Getting advice, counselling, and support from a doctor, pharmacist, nurse, or trained counsellor can help you stop smoking. Telephone advice or self-help materials, such as leaflets, may also help you stop.

Pregnant women who smoke and smokers who are at high risk of disease caused by smoking are especially likely to benefit from advice and counselling.

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If you're trying to stop smoking, you can get help from health professionals.

What is it?

Your GP, pharmacist, nurse, or counsellor may suggest that you stop smoking, explain why, and give you a few tips on how to do it. Or you may take part in group sessions that are part of a stop-smoking programme.

There are many different types of counselling. Here are some examples of what counselling can mean:

- Your GP telling you about the benefits of stopping and giving you some leaflets with useful advice and helpline phone numbers in them
- A weekly session with someone who has been specially trained to help people stop smoking (this could be a nurse, pharmacist, **psychologist**, or counsellor)
- Group therapy with a counsellor, where you and other people in the programme may talk through the problems of stopping and share tips on how to cope when you're tempted to smoke. Sometimes these programmes include breath tests to make sure nobody is cheating. The tests measure the amount of carbon monoxide you breathe out.

You may want to get counselling in addition to another type of treatment. For example, if you're using [nicotine replacement therapy](#), you may also want to take part in group therapy. Ask your GP about what's available in your area.

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Most of the tips you'll see on stopping smoking have been developed from techniques used by counsellors. If you want to try some of these, see [Tips to help you give up smoking](#) .

You can get telephone advice on how to stop smoking. The NHS offers a smoking helpline, which smokers and their families can call for free, expert advice. It's open from 7 a.m. to 11 p.m. every day. The number is 0800 022 4 332.

You could get information from self-help materials. They can be leaflets, compact discs, DVDs, or computer programs.

How can it help?

Getting advice and support from health care professionals seems to help people stop smoking. For example, if you're in a group of people who all want to stop, and you all meet regularly with a nurse to talk about it, you may be more likely to stop than if you just get a leaflet about stopping from your GP. ^[45] ^[46] ^[47]

- Without any advice, about 4 in 100 people stop smoking for at least one year. ^[45]
- With brief advice from a doctor, about 6 in 100 manage to stop for at least one year. ^[45]
- In one study, 13 out of 100 people stopped smoking for at least six months following advice from a counsellor. In this study, 9 out of 100 people stopped smoking without counselling. ^[46] Most of the people being studied were in hospital, so they might have been more determined to stop.

Telephone advice and self-help materials can also help you stop smoking if you don't want face-to-face advice. ^[48] ^[49] Leaflets, videos, cassette tapes, and computer programs that give you information on how to stop, help an extra 1 to 2 people in 100 stop smoking. This number seems small, but out of a million smokers, that's 10,000 to 20,000 who stopped.

Pregnant women who smoke or smokers at high risk of illness caused by smoking are especially likely to benefit from professional support. ^[50]

- Without any advice 10 out of 100 pregnant women stopped smoking while they were pregnant. But with advice an extra 6 out of 100 to 7 out of 100 women stop. ^[51]
- Nearly twice as many smokers admitted to hospital who were given advice stopped compared with those who didn't get any advice. ^[52]

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We're not sure how much is the right amount of help. In one study, intensive help from community health workers over six months worked well. ^[53] But in another, weekly phone calls or visits from practice nurses didn't help more than initial advice. ^[54]

How does it work?

It can boost your willpower to get practical advice from a health professional about how to give up smoking. It also helps to get support after you've given up smoking for staying stopped. Getting this advice from a doctor or counsellor who knows your medical background may make it count more because they can tell you how smoking is harming you.

Can it be harmful?

There's no evidence from the studies we looked at that advising or counselling people to help them stop smoking is harmful.

- Some patients don't like being told by their GP that they ought to stop smoking. A few patients might be so annoyed that they won't go back to a GP who keeps advising them to stop. ^[49] ^[55]
- But a study of almost 3,000 patients in the United States found that they were generally glad that their doctor advised them to stop smoking. This was true whether patients wanted to stop or not. ^[56]

How good is the research on getting professional help?

There is good evidence that support from a doctor, nurse, pharmacist, or **counsellor** helps people stop smoking. There's also evidence that giving people telephone advice or written self-help materials, such as leaflets, about stopping smoking can help. The research shows that pregnant women and smokers at high risk of disease caused by smoking are especially likely to benefit from professional advice.

We found two summaries of the research, called **systematic reviews**, where researchers looked at all the available research studies and combined all the results. ^[45] ^[46]

Here are some more details of the reviews.

- The first review looked at 42 good-quality studies (called **randomised controlled trials**, or RCTs). ^[45] All the studies tested how well counselling worked to help people stop smoking, and in all they included 31,000 smokers.
- The second review looked at the effects of advice from counsellors to stop smoking. ^[46] It included 15 good-quality studies.

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We also found some research on other ways of helping people stop: giving people telephone advice, giving people leaflets about giving up smoking, and training doctors and pharmacists on how to give advice to patients.

- One summary looked at studies of the effects of telephone advice on giving up smoking. All the studies lasted for at least six months. ^[49]
- In another summary, researchers looked at the effects of self-help materials. ^[48] These can be leaflets, cassette tapes, videos, or computer programs.

Pregnant women

We found two summaries of the research and two more good-quality studies that show professional support helps women stop smoking during pregnancy. ^{[51] [57] [58] [59]}

- The most recent review looked at 44 good-quality studies of the effects of stop-smoking advice for pregnant women. ^[51]
- An earlier review included 10 studies of nearly 5,000 pregnant women. ^[57] The studies looked at anti-smoking activities such as advice from a doctor, advice from a health educator, group sessions, and the use of self-help manuals.
- One study of 1,120 pregnant women compared brief (10 to 15 minute) advice from a trained midwife at their first antenatal visit with the usual care. ^[58]

People at high risk of disease

We found many good-quality studies that show professional support can help people stop when they are at a high risk of disease caused by smoking. ^{[57] [52] [60] [61] [62] [63]}
^[64]

Nicotine replacement therapy

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[How good is the research on nicotine replacement therapy?](#)

This information is for people who want to stop smoking. It tells you about nicotine replacement therapy, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Smoking

Does it work?

Yes. If you smoke more than 10 cigarettes a day, using nicotine replacement therapy can help you stop. ^[65]

What is it?

Nicotine replacement therapy (sometimes called NRT) provides a supply of nicotine to your body. It gives you a smaller supply of the drug than your body is used to getting from cigarettes. Most people use it for the first three months after stopping smoking, although you can use it for as long as you need to.



A nicotine patch can help you stop smoking.

NRT comes as patches, gum, inhalers, tablets that you put under your tongue, lozenges, or as a nasal spray. You can buy products from your chemists or supermarket, but your doctor can also prescribe them to you (see [How to get smoking cessation treatments on the NHS](#)). You can use just one type of product, or any combination of products.

You may have seen 'nicotine lollipops' and 'nicotine lip balms' for sale on the internet. They haven't been tested to see whether they are safe and actually work. ^[66] The same applies to electronic cigarettes (also called e-cigarettes). Until there is more good-quality research on how well they work and how safe they are, e-cigarettes are not recommended for use in the UK for people wishing to stop smoking. ^[67]

To find out about the different products available and how to choose what's best for you, see [How to use nicotine replacement therapy products](#) .

Should I stop smoking when using NRT?

It's best not to smoke while you're using NRT. But if you're not ready to stop completely, there are some NRT products that can help you cut down the number of cigarettes you smoke. These are Nicorette 2mg gum, Nicorette 4mg gum, the Nicorette inhaler, and NiQuitin Pre-Quit lozenges. ^[68]

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These are the only products designed to be used while you are cutting down. You should not use any other NRT products while you are smoking. This is because getting too much nicotine can make you feel dizzy, make your pulse race, and your heart pound.

Doctors agree that it's better to use a NRT product than to keep on smoking.^[19] Almost everyone can use these products. The Medicines and Healthcare products Regulatory Authority, the government body that checks the safety of drugs in the UK, says anyone over the age of 12 can use NRT, even pregnant women. But some people need to see a doctor before they start using NRT. For more information, see [Who can use nicotine replacement therapy?](#)

How can it help?

If you smoke at least 10 cigarettes a day, NRT increases the chances that you'll stop.^[65]

- About 17 out of 100 people who use NRT stop smoking for at least six months, compared with 10 out of 100 people who take a dummy drug (a placebo).^[65]
- The bad news is that many people who give up start smoking again. In one study, people used NRT to stop and didn't smoke for at least six weeks. But 3 out of 4 people started smoking again.^[76]
- So although NRT can help you stop, it may not help you give up cigarettes forever.^[76] ^[77] In one study, 9 out of 100 people managed to stop for one year, but only 5 out of 100 people were still not smoking eight years after stopping.^[78]
- Studies have found that NRT doesn't seem to help pregnant women stop smoking.^[79] ^[80]

None of the nicotine replacement products seems to work better than the others. But they are different in some ways. Here is what we know about the different products.^[65]

- For heavy smokers, the stronger nicotine gum seems to work better than the weaker one. More people using the 4 milligram nicotine gum managed to stop compared with those using the 2 milligram gum.
- The higher-dose patch may work a little bit better than the standard-dose patch.
- You can wear a patch just while you're awake (which is usually about 16 hours a day) or for 24 hours. Both methods work the same.
- Using patches for just eight weeks works as well as using them for longer. Also, it makes no difference whether you stop wearing a patch altogether or whether you use lower and lower doses to stop gradually.

Smoking

- In one study, heavy smokers had better results with a nasal spray, while less heavy smokers did better with a patch.^[81]

NRT seems to work about as well as the drug [bupropion](#) . We don't know how it compares to the newer drug [varenicline](#) .^[82]

Some research suggests you might have a slightly better chance of stopping smoking if you use two types of NRT rather than just one. For example, you could wear a nicotine patch, then use gum or a nasal spray if you still get a nicotine craving.^[65]

How does it work?

When you smoke, your body gets used to the feelings it gets from the nicotine you inhale. When you suddenly stop smoking, you may get some withdrawal symptoms.

Nicotine replacement therapy gives your body some of the nicotine that you used to take in from smoking cigarettes. Nicotine replacement therapy helps prevent you from feeling the withdrawal symptoms. Without any nicotine, you may:

- Feel depressed
- Have trouble sleeping
- Feel more irritable, or more frustrated and angry, than normal
- Feel anxious
- Find it more difficult to concentrate
- Feel restless
- Crave cigarettes.

These feelings are often very bad for the first few days after you stop smoking, but they gradually ease over three or four months. Nicotine replacement therapy helps you get through the time when withdrawal is the worst, the first 12 weeks after stopping.

Can it be harmful?

You may get some side effects while using nicotine replacement therapy (sometimes called NRT). But this treatment goes on for only about three months, and the side effects stop when the treatment stops. Here is what the studies found:^[65]

- If you use nicotine replacement gum, you may get hiccups, an upset stomach, jaw pain, or dental problems
- Your skin may get red or itchy where you've worn a patch

Smoking

- Nicotine inhalers and sprays may irritate your mouth or nose.

Other side effects have been reported:

- Up to one-half the people who use nicotine patches get a mild rash, but very few people stop using patches because of this. ^[71] To avoid getting a rash, put the patch in a different place each day
- The patches may keep you awake. If this is a problem, take your patch off when you go to bed ^[83]
- You're not supposed to bite down on nicotine gum very often. If you chew it too fast, you can get an upset stomach from swallowing too much nicotine. ^[71] You may also get hiccups and an aching jaw from chewing it too much. If you just hold it in your mouth and chew it only about twice a minute, then you shouldn't have these problems
- If you use a nicotine inhaler, your mouth and throat can get irritated ^[84]
- The nasal spray may give you a runny nose, irritate your nose and throat, and make you feel nauseous. ^[71] More than 9 out of 10 people who use the nasal spray say they get moderate to severe nasal irritation in the first two days.

NRT and pregnancy

If you're pregnant, using NRT may increase the chance that your baby will have problems.

A big study showed that babies born to women who used NRT in the first 12 weeks of their pregnancy were more likely to have a birth defect. ^[85] This means part of the baby's body is different from normal. Examples of birth defects are cleft lip, where there is an opening in the upper lip between the nose and mouth, and hip dysplasia, where the hip joint at the top of the leg slips out of its socket too easily.

About 8 in 100 women who used NRT had a baby with a birth defect. And about 5 in 100 women who didn't use NRT had a baby with a birth defect. But this study has not been assessed in the same way as other studies on this site. So we can't say how reliable the results are. You need to weigh up the risks of NRT against the risks of smoking while you're pregnant. Your midwife or doctor can help.

How good is the research on nicotine replacement therapy?

The evidence that nicotine replacement therapy (sometimes called NRT) helps people stop smoking is good.

For example, we found one big summary of the research, called a **systematic review**. ^[86] It summed up the results of 119 studies.

Smoking

We also found another big summary of the research that looked at how likely people were to start smoking again after stopping. ^[12]

See [How to use nicotine replacement therapy products](#) to learn more about the different types available.

Bupropion

In this section

[Does it work?](#)

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[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on bupropion?](#)

This information is for people who want to stop smoking. It tells you about bupropion, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Does it work?

Yes. Taking bupropion (brand name Zyban) can help you stop smoking.

What is it?

Bupropion was first used to treat depression. But doctors soon noticed that many of their patients who smoked gave up cigarettes while they were taking this drug. After this, bupropion was used to help smokers stop. It's available only with a prescription from your GP. See [How to get smoking cessation treatments on the NHS](#). The brand name for the kind of bupropion that's used to help people stop smoking is Zyban.

You start taking bupropion for one to two weeks before you plan to stop. The usual dose is one tablet (150 milligrams) a day for the first six days, and then two a day for the next six to eight weeks. Because nicotine is so addictive, it can take a long time to stop being dependent on it.

If you're pregnant or breastfeeding, you shouldn't take bupropion. If you get pregnant while you're taking bupropion, you need to tell your GP. Bupropion isn't usually given to smokers under the age of 18 years because it's not licensed for use by young people.

^[87]

How can it help?

- If you take bupropion, you're twice as likely to stop smoking for at least one year as if you don't take it. ^[88]
- In studies, about 10 in 100 people who took a dummy treatment (a **placebo**) stopped smoking, compared to about 19 in 100 people who took bupropion. ^[88]

Smoking

- If you are at high risk of disease caused by smoking, bupropion can help you stop.^[89] A study of people with heart disease found that twice as many people who took bupropion managed to stop compared with those who took a dummy treatment for comparison (a placebo).

Researchers have also studied other [antidepressants](#) to find out if they work as well as bupropion for people who want to stop smoking.^[88] The drug nortriptyline (brand name Allegron) can help. But doctors do not normally prescribe it to help people stop smoking unless other treatments have not worked because it has worse side effects than other medications. Other antidepressants are unlikely to help you stop smoking.

Bupropion works about as well as [nicotine replacement therapy](#).^[82] But it may not work as well as a newer drug called [varenicline](#).^[90]

Bupropion may work better when used together with nicotine replacement therapy. If you want to use these two treatments together it's a good idea to talk to your doctor first.^[91]

How does it work?

We don't know how bupropion helps people stop smoking. We do know that it increases the amounts of two chemicals (called neurotransmitters) that carry messages between brain cells. When people are depressed, bupropion helps them by increasing the levels of these chemicals.

Can it be harmful?

You may get headaches, nausea, or a dry mouth while you take bupropion, and you may also have trouble sleeping.^[88] But these effects should go away as soon as you stop taking the drug.

Seizures

One risk with bupropion is that it might cause [seizures](#) (fits). When a person has a seizure, there is unusual and sudden electrical activity in the brain. Studies have found that about 1 out of every 1,000 people taking bupropion will suffer a seizure if they're taking up to 300 milligrams a day (twice the usual dose). The higher the dose, the higher the risk.^[89] ^[92]

The chances of a seizure may be higher for people with [epilepsy](#), and people with certain psychiatric conditions (like [eating disorders](#) and alcoholism). People taking other drugs, especially certain antipsychotic and antidepressant drugs or glucose-lowering drugs for people with [diabetes](#), may be more likely to have seizures. There is also concern that bupropion may have caused the deaths of some people. For more information, see [Bupropion: more about side effects](#).

Smoking

Mood changes and self-harm

Doctors in the US have warned that people taking bupropion may become hostile or agitated, and may think about harming themselves or other people. These mood changes may include depression, and thoughts about suicide. Some people may actually harm themselves or attempt suicide. ^[93]

If you're taking bupropion and are worried about any thoughts or feelings you have, see your doctor or go to a hospital straight away. ^[94]

How good is the research on bupropion?

There's good evidence that bupropion helps people stop smoking.

We found one good summary of the research, called a **systematic review**, on using **antidepressants** to help people stop smoking. ^[88] The review looked at 30 good-quality studies (**randomised controlled trials**). Sixteen of these studies looked at whether bupropion works better than a dummy medicine (a **placebo**), while the other studies looked at other antidepressants or at bupropion and the nicotine patch used together.

The research found that bupropion and nortriptyline help you stop smoking. But other antidepressant drugs, such as moclobemide and **selective serotonin reuptake inhibitors (SSRIs)**, don't help you stop smoking.

The studies that compared bupropion with a dummy treatment looked at how people were doing six months to one year after they stopped smoking.

Varenicline

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[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on varenicline?](#)

This information is for people who want to stop smoking. It tells you about varenicline, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Does it work?

Yes. There's good research to show that varenicline can help you stop smoking. However, some people have experienced serious mood changes while taking it.

What is it?

Varenicline (brand name Champix) is a drug you can take to help you stop smoking. You need a prescription from your doctor for this drug. Varenicline is based on a natural chemical found in the body, called cystisine.

Smoking

One week after you have started taking varenicline, you set a date to stop smoking. You continue taking the tablets for 12 weeks, while you try to stop smoking. If you stop smoking, you can continue taking it for an additional 12 weeks.

You may need to start taking varenicline at a low dose, then build up to a higher dose, so your body has time to adjust to the drug. Your doctor will tell you how many tablets you need to take. ^[98]

You shouldn't take varenicline if you're pregnant or breastfeeding. And your doctor may suggest avoiding this treatment if you've ever had [depression](#) or similar conditions, such as [anxiety](#) . ^[98]

How can it help?

If you take varenicline while you're trying to stop smoking, you have about two to three times the chance of giving up for at least one year, compared to someone who took a dummy treatment ([placebo](#)). ^[90] That's because it reduces the feeling that you want a cigarette.

Research shows that it works better than another anti-smoking drug called [bupropion](#) . You are more likely to stop smoking for at least one year if you take varenicline rather than bupropion.

In a big study of more than 1,000 people: ^[99]

- 10 in 100 people taking a dummy treatment (placebo) stopped smoking for one year
- 14 in 100 people taking bupropion stopped for one year
- 23 in 100 people taking varenicline stopped for one year.

Other large studies have found similar results. ^[90]

How does it work?

Varenicline acts on the same part of your brain as nicotine. It helps ease withdrawal symptoms and also blocks the effects of nicotine if you start smoking again. So if you have a cigarette while taking varenicline, you won't get the same pleasurable feelings that you usually get from smoking. ^[90]

This means you feel less of a craving for cigarettes, and you stop associating cigarettes with pleasurable feelings. This may make it easier for you to break your addiction to nicotine and stop smoking.

Can it be harmful?

You may feel sick when you start taking varenicline. But it usually gets better after you've been taking it for a few days. Some people find they have trouble sleeping while they are taking varenicline, get strange dreams, or get a headache. ^[100] ^[72]

Some people become drowsy while they're taking varenicline. ^[98] Be careful about driving or operating machinery until you've taken the drug for a while and know how it affects you.

Mood and behaviour changes

The Medicines and Healthcare products Regulatory Agency, the organisation that checks drugs for safety in the UK, has warned that some people get mood changes while taking varenicline. ^[101] A few people become so depressed they think about suicide. There have also been reports of people becoming anxious and agitated, or thinking about harming themselves or other people. ^[93] However, it's hard to say whether varenicline causes depression as a side effect, or whether giving up smoking makes people depressed.

Despite the official warning about side effects, a study published in late 2009 didn't find any link between varenicline and suicidal thoughts. ^[102] Researchers looked at more than 80,000 people, and compared varenicline with other treatments to help people stop smoking. There wasn't a higher rate of suicidal thoughts, self-harm, or depression among people who took varenicline. However, the researchers couldn't rule out a small increase in risk.

Before taking varenicline, be sure to tell your doctor if you've ever had depression or a similar illness. If you get any worrying thoughts or feelings, either while taking varenicline or soon after you stop, see your doctor straight away.

Other serious side effects

A small number of people taking varenicline have also reported other serious problems, such as blurred vision; heart problems, including heart attacks; convulsions; muscle spasms; skin reactions; and **diabetes**. But we don't know yet whether varenicline or something else caused these problems. ^[103] ^[104]

Varenicline is a new drug, so we know less about its benefits and harms than we do for drugs that have been around for a long time. If you are taking varenicline and have any problems, see your doctor straight away.

How good is the research on varenicline?

There's good evidence that varenicline helps people give up smoking.

For example, we found one good summary of the research (a **systematic review**) on using varenicline to help people stop smoking. ^[90] The summary looked at 15 separate studies, including more than 12,000 people in total.

Smoking

One of the studies included in the summary compared varenicline to another smoking cessation drug, called [bupropion](#) .

Exercise

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[Does it work?](#)

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[How does it work?](#)

[Can it be harmful?](#)

[How good is the research on exercise?](#)

This information is for people who want to stop smoking. It tells you about exercise, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Does it work?

We're not sure. There's some evidence that exercise might help you stop smoking. But more research is needed to find out for sure.

What is it?

Exercise can be part of the way you live. For example, you can get exercise by climbing stairs and cleaning the house. It can be gentle, like walking and gardening. Or it can be something you make special time for, like going to the gym. And it can be more active, like swimming, running, playing tennis, riding a bicycle, or using a rowing machine.

Doctors may advise people who are trying to stop smoking to exercise for at least half an hour three days a week. Or you can exercise for shorter times, but more often. ^[105]

How can it help?

Doing some kind of exercise while stopping smoking may help people stop smoking for good. ^[105] ^[106]

Nearly 300 women who were stopping smoking took part in one study. One-half of the women exercised and one-half didn't. Here is how they did: ^[106]

- Twice as many of the women who exercised stopped smoking for 12 months, compared to those who didn't exercise
- Those who exercised put on less weight than those who didn't
- The women who exercised had healthier lungs than those who didn't.

Many of the other studies on exercise found that it didn't help people stop, but these studies might have been too small to prove this for certain. ^[105]

Smoking

Some studies have found that, even if exercise didn't help people stop smoking, it helped reduce tobacco cravings and withdrawal symptoms. ^[107]

How does it work?

When people are giving up cigarettes, exercise may help them suffer less from withdrawal symptoms and feel fewer of the cravings that go along with stopping smoking. ^[107] ^[108] ^[109]

Exercise has been shown to reduce: ^[109]

- Cravings for cigarettes
- Mood swings
- Tense feelings
- Sleep disturbances
- Weight gain.

If you can reduce or avoid the unpleasant effects of stopping smoking, it's more likely that you won't start smoking again.

Can it be harmful?

There's no evidence that doing exercise while you stop smoking is harmful. In fact, exercise has lots of positive effects, like making your heart more healthy and protecting you against some types of cancer.

How good is the research on exercise?

There is some evidence that exercising regularly when you're trying to stop smoking can be helpful.

We found two summaries of the research, called **systematic reviews**, which between them looked at 15 studies. ^[105] ^[107] But many of the studies were small. Larger studies are needed to show the real effect of exercise on people trying to stop smoking.

Acupuncture

In this section

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[Can it be harmful?](#)

[How good is the research on acupuncture?](#)

Smoking

This information is for people who want to stop smoking. It tells you about acupuncture, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Does it work?

Probably not. Having **acupuncture** is unlikely to help people stop smoking.

What is it?

Acupuncture is a traditional Chinese treatment. It's a type of complementary or alternative medicine. If you have acupuncture, a trained acupuncturist puts sterile needles into your skin.

Traditional acupuncturists believe that acupuncture improves the flow of energy around the body. Some modern doctors think that putting needles in the skin could encourage the release of natural chemicals that block pain and help you feel relaxed.^[110] Another theory is that acupuncture might work a bit like talking therapy. Discussing your situation with an acupuncturist and relaxing while the needles are put in might help to reduce anxiety.

Sometimes people have acupuncture to try to help reduce the withdrawal symptoms they get when they stop smoking. Usually, treatment starts some days before the person actually stops. Needles are inserted in the outer ear (or in other parts of the body) for 15 to 20 minutes. The treatment may be repeated over the following days.^[111]

Sometimes the acupuncturist inserts special needles that stay in place longer. Usually these needles are inserted into the outer ear and are kept there for several days with surgical tape.

Some acupuncturists use small seeds instead of needles. They attach the seeds to the body with tape. The seeds are usually left in place for a few days, and you can press them yourself when you feel the need. This is called acupressure. If you're trying to stop smoking, you may be told to press these points on your body when you feel like having a cigarette.

How can it help?

Studies disagree about whether acupuncture can help people stop smoking. Some studies have found that it helps some people stop for a few months.^[112] But large reviews of studies have tended to find that it didn't help.^{[113] [114]}

For now there isn't enough good evidence to recommend acupuncture for stopping smoking. There isn't really any scientific reason why it should work.

Smoking

How does it work?

Acupuncture has been used in the West for the past 30 years as an aid to stop smoking. ^[111] Acupuncture had been found to help people in Hong Kong stop smoking **opium**. One study found that people who had acupuncture when they were giving up opium had less pain and fewer withdrawal symptoms than people who didn't get the treatment. ^[115] So people thought this treatment might help ease withdrawal symptoms for people who are giving up nicotine.

Unfortunately, research has found mixed results.

Can it be harmful?

There is no evidence from the research we looked at that acupuncture can be harmful.

We found some additional information, but it's based on research that hasn't been studied in the same way as other research we talk about on this site. We're including it because we think it may be helpful if you're trying to decide whether to try acupuncture.

- In one study, doctors and **physiotherapists** who used acupuncture for a variety of medical problems were asked if the treatment had ever caused a patient any harm. Out of 10,000 acupuncture treatments given, there wasn't a single episode of serious harm. Minor side effects did occur, but these were fairly rare. For example, acupuncture caused bleeding in about 1 out of every 30 treatments, and pain in about 1 out of every 90 treatments. ^[116]
- Another study looked at 34,407 acupuncture treatments given by professional acupuncturists. None of the treatments caused any serious harm. Again, minor side effects did occur, including mild bruising in about 1 in 60 treatments, pain in about 1 in 80 treatments, and bleeding in about 1 in 250 treatments. ^[117]
- There have been some reports of serious harm from acupuncture, such as injury to the nerves or lungs and getting **infections** (like hepatitis) from dirty needles. These sorts of serious problems are very rare. ^[118]

How good is the research on acupuncture?

The evidence that acupuncture doesn't help people stop smoking is strong. ^[113]

For example, one large summary of the research, called a **systematic review**, looked at 24 studies. Altogether, the studies included more than 4,000 people who were trying to stop smoking.

Some people in the studies were given acupuncture while others were given sham acupuncture, where the needles are put into inactive points, or no treatment at all.

Overall, people were not more likely to give up smoking if they had acupuncture.

Drugs that treat anxiety

In this section

[Do they work?](#)

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[How can they help?](#)

[How do they work?](#)

[Can they be harmful?](#)

[How good is the research on drugs that treat anxiety?](#)

This information is for people who want to stop smoking. It tells you about drugs that treat anxiety, a treatment used to help people stop smoking. It is based on the best and most up-to-date research.

Do they work?

No. Drugs for anxiety don't seem to help people stop smoking. And, if you take them for more than a few weeks, you can become addicted to them.

What are they?

Many drugs for anxiety have been tried as treatments for people trying to stop smoking. Here are some of them:

- Diazepam. Drugs like diazepam are called benzodiazepines. You may have heard them called tranquillisers. They slow down some activity in the brain and spinal cord.
- Buspirone. This drug reduces feelings of anxiety.

All these drugs come as tablets.

How can they help?

There's no evidence that any of these drugs can help people who are trying to stop smoking. ^[119]

How do they work?

When people stop smoking, they often feel anxious. Doctors thought that drugs that reduce anxiety might help smokers and make it easier for them to stop. ^[119] But the research shows that this isn't the case.

Can they be harmful?

Some of the drugs used to treat anxiety can cause side effects, and some of the side effects can be serious. For example, you can become dependent on benzodiazepines, even after just a few weeks. This means your body gets used to them, and you get unpleasant withdrawal symptoms when you stop taking them. This is why doctors prescribe them only for a short time.

Smoking

Another common problem with these drugs is that they make people sleepy.

To find out more about treatments for anxiety, and their side effects, see [What treatments work for anxiety disorder?](#)

How good is the research on drugs that treat anxiety?

The research seems to show that drugs for anxiety don't help smokers stop. We found one summary of the research (known as a [systematic review](#)) including six studies. ^[119]

Four of the studies looked at how many people gave up smoking after one year of taking either a drug for anxiety or a dummy treatment (known as a [placebo](#)). The research showed that an anxiety drug did not help people give up cigarettes. But scientists say that more research is needed before we can be certain.

Clonidine

In this section

[Does it work?](#)

[What is it?](#)

This information is for people who want to stop smoking. It tells you about clonidine, a treatment that's been tried as a way of helping people stop smoking.

Does it work?

We haven't looked at the research on this treatment in the same detail we have for most of the other treatments we cover. But we've included some information, as you might be interested in this treatment or have questions about it.

What is it?

The drug clonidine is usually used to treat [high blood pressure](#) . The brand name for it is Catapres.

It reduces withdrawal symptoms for people who are trying to stop taking [opiate drugs](#) , such as [morphine](#) and heroin. Doctors thought that clonidine might help people who are giving up nicotine.

A few studies suggest it can work, but there's not enough research to know for certain. Also, it can cause side effects, such as drowsiness and dizziness. ^[120]

Hypnotherapy

In this section

[Does it work?](#)

[What is it?](#)

This information is for people who want to stop smoking. It tells you about hypnotherapy, a treatment that's been tried as a way of helping people stop smoking.

Does it work?

We haven't looked at the research on this treatment in the same detail we have for most of the other treatments we cover. But we've included some information, as you might be interested in this treatment or have questions about it.

What is it?

Sometimes people go to a hypnotherapist when they're trying to stop smoking. This kind of therapist uses **hypnosis** to make you feel very deeply relaxed. This kind of relaxation is sometimes called a hypnotic trance. The hypnotherapist then gives you suggestions to help you change the way you behave.

If you're trying to stop smoking, your hypnotherapist may suggest that you don't need cigarettes or that you don't like smoking any more. ^[121]

Studies have found different results about whether hypnosis can help people stop smoking. Some large reviews of studies have suggested that it can help. ^[112] Other equally large reviews have found that there isn't enough evidence to recommend it as a treatment. ^[114] For the moment it remains unclear whether hypnosis can help people stop smoking.

Antidepressants

In this section

[Do they work?](#)

[What are they?](#)

[Can they be harmful?](#)

This information is for people who want to stop smoking. It tells you about antidepressants, a treatment that's been tried as a way of helping people stop smoking.

Do they work?

We haven't looked at the research on antidepressants apart from bupropion in the same detail we have for most of the other treatments we cover. But we've included some information, as you might be interested in this treatment or have questions about it.

What are they?

Antidepressants are drugs that doctors usually use to help people who are depressed feel better. Many of these drugs have been tested to see if they help people stop smoking. Here is what we know. ^[88]

- The antidepressant drug bupropion (brand name Zyban) is licensed as an antidepressant in the UK and it helps people stop smoking. To learn more, see [Bupropion](#) .
- One other antidepressant, nortriptyline, also helps people stop smoking.

Smoking

- If you take nortriptyline to help you stop smoking, your chance of success is nearly three times better than if you take a dummy (placebo) treatment.
- However, doctors usually give nortriptyline to smokers to help them stop only if other treatments, especially [nicotine replacement therapy](#) , haven't helped. This is because nortriptyline has more side effects than other treatments and it is not licensed for helping people stop smoking in the UK.
- In studies where nortriptyline was used to treat depression, patients reported that it made them sleepy and constipated . They also said that they had problems emptying their bladder . There's a danger that this drug can cause heart problems too, and an overdose can cause death.
- Research has been done on five other antidepressants used to help people stop smoking: fluoxetine (Prozac), moclobemide (Manerix), paroxetine (Seroxat), sertraline (Lustral), and venlafaxine (Efexor). In studies, these antidepressants didn't help people stop smoking. Fluoxetine, paroxetine, and sertraline are known as selective serotonin reuptake inhibitors or SSRIs .

Can they be harmful?

All antidepressants have side effects. The side effects vary from one drug to another. Possible problems include a dry mouth, blurred vision, nausea, an upset stomach, diarrhoea, and sexual problems (such as erection problems or not being able to have an orgasm). ^[122]

Some antidepressants can cause withdrawal symptoms if you stop taking them suddenly. ^[122] Talk with your doctor if you want to stop taking an antidepressant. He or she can help you reduce your dose gradually.

Self-harm and suicide

Research has found that children, teenagers, and young adults taking antidepressants of all kinds are more likely to think about suicide or try to harm themselves. ^[123]

The risk of suicidal thoughts is highest if you're under 18. ^[123] Among people under 18 taking an antidepressant, an extra 14 in 1,000 thought about suicide.

The researchers also found that there's a risk for young adults up to the age of 24. ^[123] But their risk wasn't as big as the risk for people under 18. An extra 5 in 1,000 people between the ages of 18 and 24 thought about suicide.

The research doesn't seem to show an increased risk of suicidal thoughts or self-harm for people over the age of 24. ^[123] But doctors and carers are advised to keep a careful check on anyone taking antidepressants for signs of suicidal thoughts. ^[94]

Smoking

If you're taking an antidepressant and are worried about any thoughts or feelings you have, see your doctor or go to a hospital straight away.^[94]

Further informations:

Things to know about nicotine addiction

Here are some of the things scientists have found out about nicotine addiction.

- Nicotine is just as addictive as heroin, cocaine, or alcohol.^[9] That's why it's so easy to get hooked.
- Even if you smoke just a few cigarettes a week, you can get addicted to nicotine in a few weeks or even days.^[10] The more cigarettes you smoke, the more likely you are to become addicted.^[11]
- Many smokers say they have trouble cutting down on the amount of cigarettes they smoke. This is a sign of addiction.
- The younger you are, the more likely you are to become addicted to nicotine. If you're a teenager, your risk is especially high.^[11]
- Girls seem to become addicted to nicotine faster than boys do.^[10]

Other ways stopping helps

There are many ways that stopping smoking improves your health. It's never too late to stop, even if you're ill.

- If you've been treated for [small-cell lung cancer](#), you'll lower your chance of getting another type of cancer if you stop smoking.^[29]
- If you've been diagnosed with another type of cancer, such as head or neck cancer, throat cancer, bladder cancer, or cancer of the pancreas, your chances of getting a second cancer will go down when you stop smoking.^[30]
- If you have heart disease, you'll reduce your chances of heart problems such as a heart attack or a stroke if you stop smoking.^[30]
- If you have chronic obstructive pulmonary disease (COPD), your breathing tubes have been damaged and it's hard for you to breathe. Stopping smoking will slow

Smoking

down the damage COPD causes to your lungs. If you have mild COPD and you stop smoking, your lungs will be able to work better. ^[30] ^[31]

- If you have a smoker's cough and cough up phlegm, your symptoms should improve when you stop smoking. ^[32]
- If you have a stomach ulcer, it's more likely to heal if you stop smoking. And you're less likely to get another ulcer if you stop. ^[30] ^[33]
- If you're a woman, by giving up cigarettes you can reduce the chances of having an early menopause. ^[30]
- If you're a woman, you'll slow down the loss of bone when you stop smoking. Bone loss speeds up when you smoke. If your bones are already weakened, losing more bone tissue can increase the chances that you'll fracture a hip or other bone. Men who stop smoking may also lose less bone, but we know less about this than we do about bone loss in women. ^[34] ^[35] ^[36] ^[37]
- If you're in hospital, you'll get better faster when you stop smoking.

Tips to help you give up smoking

When you try to stop smoking, your chances of success will be a lot better if you plan ahead.

We've looked at the information available to people who are getting ready to stop. And we've put together some of the best advice we could find. ^[38] Here it is.

1. Get ready

- Set a date to stop.
- Tell your friends and family you're stopping, and ask them not to offer you any cigarettes and not to smoke around you.
- Talk to your GP about getting treatment to help you stop.
- Ask your GP or another health professional what support is available in your area for people who want to stop smoking.
- If you've tried to stop before, think about why you started again and try not to fall into the same trap again.

Smoking

- Get rid of all the ashtrays, lighters, and cigarettes in your home, your car, and your place of work.

2. Stop

- Once you get to your 'stop day', don't smoke, not even one 'last' cigarette.
- Don't let anyone smoke in your home. Ask them to smoke outside.
- When you get the urge to smoke, do something to distract yourself. Have a drink of water, go for a walk, talk to someone, get busy with a hobby or a chore you've been meaning to do.
- Change your normal routine so that you don't think about when you used to smoke. For example, if you used to have a cigarette right after breakfast, have your breakfast somewhere where you can't smoke, say, in the office. Switch to tea if you used to drink coffee.
- Try to reduce stress by having a hot bath, taking an exercise class, or by reading a book or magazine.
- Drink lots of water and other fluids.

3. Don't give in

You may have low times when you're trying to stop, but try to stay positive by reminding yourself of why you're stopping.

Below is a list of common reasons people give for why they start smoking again. If any of these look like problems you might have, plan ahead so you can do things differently. Until you feel really confident about not smoking, these are some things you may have to avoid.

- Drinking alcohol. Alcohol lowers your willpower. So until you feel on top of things, try to avoid it, especially in social situations like parties.
- Other smokers. You may usually smoke when you're with certain people. You may have to put off seeing those people for a while.
- Weight gain. Many people, especially women, worry about putting on weight when they stop smoking.^[39] You can reduce your chances of gaining weight by being active and eating healthy food. Don't go on a diet when you first stop, because that can distract you from stopping smoking and make it harder.^[40] [Nicotine replacement therapy](#) (especially the gum) may help to avoid weight gain.^[40]

Smoking

- Bad mood or depression. Don't be tempted to smoke. If you get irritable or feel stressed, don't give in to the old habit. Put off the temptation to smoke by finding other ways of coping when you feel down. A lot of people find that going for a walk helps.

4. If you start smoking again

- Don't lose heart. Remember that most ex-smokers have tried several times before they stopped for good.
- Don't stop trying to give up. One-half of all smokers eventually stop. ^[41]
- If you're one of the many who have stopped only to start again, think about why you started smoking again. Plan ahead to keep from being tempted the same way next time.

How to use nicotine replacement therapy products

Patches

These are some of the brand names of nicotine replacement patches you can buy at the pharmacy or the supermarket:

- Nicorette
- Nicotinell
- NiQuitin CQ.

You can work out how strong a patch you need by answering the two questions below and adding up your score. ^[69] ^[70] This is called the short Fagerstrom test.

Question 1: how soon after waking up do you smoke your first cigarette?

- Less than five minutes (3 points)
- Five to 30 minutes (2 points)
- 31 to 60 minutes (1 point)

Question 2: how many cigarettes do you smoke each day?

- More than 30 cigarettes (3 points)

Smoking

- 21 to 30 cigarettes (2 points)
- 11 to 20 cigarettes (1 point)

Here's how your score helps you work out which patch to use.

- 5 or 6 points = heavy nicotine dependence. Start with the 21 milligram (mg for short) nicotine patch.
- 3 or 4 points = moderate nicotine dependence. Start with the 14 mg nicotine patch.
- 2 points = light nicotine dependence. Start with the 7 mg nicotine patch.

It's best not to smoke when you're using nicotine patches. If you do, you'll get a high dose of nicotine, and that can make you feel sick.

Here are some things to keep in mind if you decide to try the nicotine patch:

- You shouldn't use it for more than 12 weeks
- You should start with the dose you've worked out by answering the questions above
- After four to six weeks, switch to the patch with the next lower dose
- Stop wearing the patches when you've been using the lowest-dose patch for about four weeks
- If you're starting with the lowest dose, stop after six weeks
- If you're having trouble stopping the patch completely, talk to your doctor.

Gum

You can buy nicotine gum from a pharmacy. It comes in different strengths. Some brand names are Nicorette, Nicotinell, and NiQuitin. It's important not to chew the gum too much because you can swallow too much nicotine if you do. Too much nicotine will give you a stomach ache and it might make your heart pound.

Try to chew the gum just once or twice a minute, and hold it in your mouth when you're not chewing.

If you're a heavy smoker, stronger doses will work best for you. After two weeks, you should be able to switch to a lower-dose gum. ^[71]

Smoking

Inhaler

You might also try a nicotine inhaler such as the Nicorette Inhalator. You put a nicotine cartridge in the inhaler, then breathe it in as you would a cigarette. A 15 milligram (mg) cartridge contains enough nicotine for about 40 minutes of 'puffing'.

Nasal spray

You'll need a GP's prescription for a nasal spray such as Nicorette. One dose is two sprays, one in each nostril. The two sprays together give you 1 milligram of nicotine. You can use it once or twice an hour. You shouldn't use it more than 64 times a day. ^[72]

Tablets

You can get a prescription for tablets that you place under your tongue (called sublingual tablets by doctors), such as Nicorette Microtab. You should take one 2 milligram tablet every hour, if you smoke fewer than 20 cigarettes a day. But if you smoke more than 20 cigarettes a day, you'll probably need to take two tablets each hour.

You shouldn't take more than 40 tablets a day. You'll probably need to take them for three months. But you shouldn't need to take them for longer than six months.

Lozenges

Your GP can prescribe lozenges, such as NiQuitin CQ, for you to suck slowly every one to two hours, or when you have the urge to smoke. You shouldn't chew or swallow the lozenge. You should move the lozenge from one side of your mouth to the other until it's dissolved. This takes about 20 to 30 minutes.

Which one?

We're not sure whether some NRT delivery systems are better than others in certain situations. You'll have to decide what suits you best.

Here are some ideas that might help you choose.

- If you have false teeth or dental problems, you may find it hard to chew gum.
- If you get strong early-morning cravings, a nicotine patch that works around the clock (a 24-hour patch) may be best for you.
- If you need the ritual of smoking, with its hand-to-mouth action, the oral inhaler may suit you best. ^[73]

Who can use nicotine replacement therapy?

Almost anyone can use nicotine replacement therapy (sometimes called NRT).

Smoking

The Medicines and Healthcare Products Regulatory Authority (MHRA), the government body that checks the safety of drugs in the UK, says that you can use NRT if: ^[74]

- You are 12 years old or older. But if you are under 18, you should talk to a pharmacist, nurse, or doctor if you want to use NRT for more than three months
- You are breastfeeding. The amount of nicotine your baby gets from breast milk is likely to be less than the amount they breathe in from your cigarette smoke. But it is best to use gum, lozenges, or inhalers rather than patches. And you should avoid using NRT just before you feed your baby
- You have diabetes . You may need to monitor your blood sugar more often than usual because nicotine can affect this. But smokers who have diabetes are at risk of heart disease, so it is important to try to give up.
- You have heart disease or have had a stroke . You should talk to your doctor before you start using NRT and follow their advice on how to use it safely.
- You have serious kidney problems or liver problems. You should talk to your doctor before you start using NRT and follow his or her advice on how to use it safely.
- You are pregnant. Doctors say that smoking is more harmful, both to you and your baby, than NRT. One big study has found that NRT may increase the chance of the baby having a birth defect. ^[75] The MHRA says that you can use NRT if you're finding it difficult to give up.

Bupropion: more about side effects

In some countries (including the UK, Canada, and Australia) there are concerns that bupropion may have caused some deaths. In the UK, out of 513,000 people who have taken bupropion, 58 have died while taking the drug. In Canada, over a period of three years, there were 1,127 reports of serious side effects in people taking bupropion. These included 19 deaths, 172 seizures , and 37 cases of allergy . ^[95]

But so far, scientists haven't been able to show that the drug is connected to the deaths. The Medicines and Healthcare products Regulatory Agency (MHRA), the government body that makes sure all medicines on the UK market are safe, says that the people may have died because of medical problems they had before they took bupropion. It may be that people with serious illnesses (like heart disease) who need to stop smoking fast are more likely to take bupropion. ^[95]

Smoking

It's important for you and your GP to discuss the risks and benefits of using bupropion. The MHRA is looking closely at any side effects people experience while taking bupropion in the UK, and they advise that certain people should not take it. ^[96]

You should not take bupropion if you:

- Have a seizure disorder, such as epilepsy
- Are already taking any other medicines that contain bupropion
- Have or have had an eating disorder (for example, bulimia or anorexia nervosa)
- Are currently taking or have recently taken a drug called a monoamine oxidase inhibitor (MAOI) (you should have a gap of at least 14 days between stopping the MAOI and starting bupropion)
- Are allergic to bupropion or the other ingredients that make up Zyban (the brand name for the kind of bupropion used to help people stop smoking)
- Have suddenly stopped taking benzodiazepines, alcohol, or other sedatives .

Here are some other things you may want to discuss with your GP. ^[92] ^[97]

- How much of the drug you should take. Your dose should be less than 300 milligrams a day.
- Any head injuries, seizures, tumours you might have had in your brain or spinal cord, or liver disease you may have had in the past. Tell your GP about them because they may increase your chance of having a seizure while taking bupropion.
- Other drugs you may be taking. Some of them might increase your chance of having a seizure. Examples are antidepressants , drugs for asthma (theophylline), steroid tablets or injections, and antipsychotic drugs.
- Whether alcohol is allowed while you're taking bupropion, and if so, how much. Drinking excessively could increase your risk of having a seizure.
- The dangers if you suddenly stop drinking alcohol or taking sedative drugs, opiates , cocaine, over-the-counter stimulants, or diet drugs. If you stop drinking or taking any of these drugs while you're taking bupropion, your risk of having a seizure goes up.

Glossary:

heart disease

Smoking

You get heart disease when your heart isn't able to pump blood as well as it should. This can happen for a variety of reasons.

antidepressant

Antidepressants are medicines used to treat depression and sometimes other conditions. They work by changing the levels of chemicals in your brain called neurotransmitters. There are three main types of antidepressants, which work in different ways: selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs).

withdrawal symptoms

Withdrawal symptoms are when you get unpleasant physical or mental symptoms because you stopped taking a drug you were physically dependent on. You can become physically dependent on a drug if it alters the level of certain chemicals in your body. This makes your body produce less of those chemicals or change how it responds to them. Also, some drugs work in a similar way to chemicals that naturally occur in your body. This may mean your body stops making its natural versions. If either of those things happens, your body will need the drug to function normally and you will feel or become ill if you suddenly stop taking the drug. You can get withdrawal symptoms from some prescription medicines, as well as some illegal drugs.

opiates

Opiates are medicines made from opium, which occurs naturally in poppy plants. Opiates work well to relieve pain. But you can get addicted to them if you don't use them correctly.

infection

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

chronic obstructive pulmonary disease (COPD)

Chronic obstructive pulmonary disease (COPD) is an illness that causes coughing and difficulty breathing. Most of the people who get it have smoked for a long time. COPD can include both emphysema, which is the breakdown of air sacs (alveoli) in your lungs, and chronic bronchitis, which is a recurrent, long-lasting cough that brings up phlegm.

LDL cholesterol

Cholesterol is a fatty substance in your blood. You can get it from food and it is also made by your liver. Having a lot of cholesterol in your blood can cause health problems. LDL cholesterol is often called 'bad' cholesterol. It can build up in your arteries and increase your risk of heart disease. LDL stands for low-density lipoprotein.

stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

intestine

Your intestine is a long tube that runs from your stomach to your rectum. Your intestine is divided into two parts: the small intestine and the large intestine. The small intestine helps your body absorb nutrients. The large intestine helps your body absorb water and other materials.

pancreas

Your pancreas is an organ that's behind your stomach. It makes several different chemicals. Some of the chemicals help your body digest food. Your pancreas also makes a chemical called insulin, which helps your body use the sugar in your blood.

kidney

Your kidneys are organs that filter your blood to make urine. You have two kidneys, on either side of your body. They are underneath your ribcage, near your back.

bladder

Your bladder is the hollow organ at the top of your pelvis that stores urine. It is similar to a balloon, only with stronger walls. It fills up with urine until you go to the toilet.

cervix

The cervix is a piece of tissue that sits between a woman's womb and her vagina. It has a small opening in it that gets much bigger when a woman is having a baby.

asthma

Asthma is a disease of the lungs. It makes you wheeze, cough and feel short of breath. Asthma attacks are caused by inflammation and narrowing of your airways, which makes it hard for air to pass in and out of your lungs.

pneumonia

Pneumonia is an infection in your lungs. Anything that causes infections (bacteria, viruses or fungi, for example) can give you pneumonia.

bronchitis

Bronchitis is inflammation of one or both of the major airways (called bronchi) that lead in and out of your lungs.

Smoking

stomach ulcer

A stomach ulcer is a break in the surface that covers the inside of your stomach.

menopause

When a woman stops having periods, it is called the menopause. This usually happens around the age of 50.

counsellor

A counsellor is a professional who is trained to help people, usually with the emotional part of their illness. Counsellors talk to people about their illness. They also suggest ways that people can make changes for the better.

psychologist

A psychologist is trained to study the human mind and human behaviour. A clinical psychologist provides mental health care in hospitals, clinics, schools or to private patients.

systematic reviews

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

diabetes

Diabetes is a condition that causes too much sugar (glucose) to circulate in the blood. It happens when the body stops making a hormone called insulin (type 1 diabetes) or when insulin stops working (type 2 diabetes).

placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

seizure

A seizure (or fit) is when there is too much electrical activity in your brain, which results in muscle twitching and other symptoms.

eating disorder

If you have an eating disorder, you may not be eating or thinking about food in a healthy way. People with eating disorders tend to eat too much or too little and to worry a lot, often about their weight or how they look. Common eating disorders are bulimia and anorexia nervosa.

allergy

If you have an allergy to something (such as pollen or a medicine), your body always overreacts to it. The reaction happens because your immune system (your body's system for fighting infection) is too sensitive to it.

Epilepsy

Epilepsy is a condition that affects your brain. If you have epilepsy, the normal electrical activity in your brain gets disturbed from time to time. This leads to seizures (also called fits).

monoamine oxidase inhibitors

Monoamine oxidase inhibitors (MAOIs) are a group of medicines that are mainly used to treat depression. They work by increasing the levels of chemicals called neurotransmitters in your brain.

sedation

A feeling of relaxation and calm, or the act of creating a feeling of calm by administering a drug.

liver

Your liver is on the right side of your body, just below your ribcage. Your liver does several things in your body, including processing and storing nutrients from food, and breaking down chemicals, such as alcohol.

selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are drugs that are used to treat depression. Serotonin is a chemical in your brain (called a neurotransmitter) that affects your mood. SSRIs increase levels of serotonin in your brain. This helps to improve your mood.

Smoking

acupuncture

If you have acupuncture, an acupuncturist puts thin, sterile needles into your skin. People who perform traditional acupuncture believe that it removes blockages along energy channels in your body. Other acupuncturists say that the needles help your body release natural chemicals that block pain.

physiotherapist

A physiotherapist is a health professional who is trained to use physical activity and exercises to help people's bodies heal.

high blood pressure

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

morphine

Morphine is a powerful painkiller. Morphine works by attaching to receptors on the nerve cells that carry messages about pain. This stops the messages reaching your brain. Morphine also directly affects your brain, providing a sedating effect (this makes you less alert). Doctors use morphine to give relief from severe pain caused by cancer, surgery or a heart attack.

hypnosis

Hypnosis is a relaxed state of mind people can be put into through a technique called hypnotism. Hypnosis may make you more suggestible, which means you are more easily persuaded to do something the hypnotist suggests. Hypnosis can be used by trained therapists to try and help improve people's health: for example, by helping them stop smoking.

constipated

When you're constipated, you have difficulty passing stools (faeces). Your bowel movements may be dry and hard. You may have fewer bowel movements than usual, and it may be a strain when you try to go.

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