How do you get an erection?

When you have romantic or sexual thoughts, signals are sent from your brain to the nerves in your penis. This causes the arteries to relax to allow the penis to fill up with blood. As it expands, the veins which carry blood out of the penis become compressed. Overall, more blood enters than leaves, so the penis then gets longer and firmer.

What is erectile dysfunction (ED)?

Erectile dysfunction is the medical term for difficulty getting an erection. It can also mean difficulty in keeping an erection long enough for fulfilling sexual activity. It is a common problem amongst men, affecting as many as one in every three men as they grow older.

What causes erectile dysfunction?

There are many reasons why you may have erection problems. They may be related to problems with your physical health. Common causes include:

- Diabetes
- Smoking
- High blood pressure
- High cholesterol (the fat levels in your blood)
- Obesity
- Stroke
- Previous surgery (for example prostate surgery)
- Hormone problems
- Medication given to you by your doctor
Are there any other causes of erectile dysfunction?

Emotional problems may affect your ability to get an erection. You may be going through a particularly stressful time in your life, for example: a divorce, operation, redundancy, retirement or death of a loved one. This can lead to erectile problems without any physical cause.

There are many lifestyle factors that may cause erection problems. Drinking too much alcohol, unhealthy eating, recreational drug use or low levels of exercise may well have an effect.

How is smoking related to ED?

Cigarette smoke contains around 4,000 chemicals. Here are some examples of these and where they are commonly found:

- Acetone - nail polish remover
- Ammonia - cleaning solutions
- Arsenic - rat poison
- Carbon monoxide - car exhaust fumes
- Lead - batteries
- Tar - road surfaces

These chemicals cause damage to the blood vessels within the body. They cause narrowing of the arteries, and fatty deposits to build up, meaning it is much harder for blood to flow into the penis, to help it to expand in the normal way.

Nicotine has a direct effect on the blood vessels which carry blood to the penis. This causes the blood flow to be reduced, and this makes getting and keeping an erection more difficult. If you stop smoking, there could be an immediate improvement in the problems you may be facing.
How might you feel if you have erectile dysfunction?

Many patients feel too embarrassed to discuss erection problems with others. This is perfectly normal, as you may feel one or more of the following:

- Nervous and embarrassed
- Ashamed
- Guilty
- Frustrated
- A reduced sense of confidence

This could cause you to avoid intimacy with your partner, and may make your partner feel rejected, unattractive or that they are somehow causing this to happen.

What can I do to help my erection problems?

The best way to prevent erection problems is to reduce the chance of you having them in the first place. It is now known that erectile dysfunction shares almost the same risk factors as heart disease. So if you reduce these risk factors, you may notice an all round health benefit. Changing your lifestyle towards a more healthy way of living is one of the ways in which you can do this. Examples could include:

- Stopping smoking
- Sticking to a low fat diet
- Having blood tests to look at cholesterol levels
- Increasing your levels of exercise
- Reducing your alcohol intake
Should I go to my doctor about my erectile dysfunction?

Erectile difficulty may be an early sign of various other illnesses, as mentioned earlier. So it is very important to see your doctor who will investigate the potential causes. Your treatment may then vary depending on whether any underlying disease is present.

What treatments are there to help with my erectile dysfunction?

As mentioned previously, any underlying illnesses which may be causing your erection difficulty will be treated suitably by your doctor. Some of the most common treatments for erection difficulty include:

- Medication (e.g. Viagra®, Cialis®, Levitra®)
- Vacuum therapy using pumps
- Injection therapy
- MUSE® (placing medicine into your water pipe)
- Penile implants (inflatable tubes inserted into your penis during an operation)
- Psychosexual counselling / talking therapy

Your doctor or nurse will advise you on which therapy may be best suited to you. Unless there is a reason for you not to use a certain therapy (e.g. Viagra may not be suitable for you; if you take medicines containing nitrates, it could be dangerous to your health), you can choose which one you would like to try.
In addition to helping my ED, what other benefits are there to stopping smoking?

There are many physical and health benefits to quitting smoking. Smoking increases your risk of the following:

- Heart disease
- Cancers (e.g. of the lung and mouth)
- Lung disease (e.g. COPD)
- Fertility problems (by lowering your sperm count and mobility of them to travel to the egg)
- Eye disease
- Osteoporosis
- Psoriasis

Smokers also die 15 years younger.

There are also the added benefits of:

- Improving your sense of taste and smell
- Improving the appearance of your skin and teeth
- Improving your sex life
- Feeling fitter
- Helping you to feel better about yourself
- Saving you money
- Living a longer, healthier life
Remember it is never too late to stop smoking. The benefits begin within 20 minutes of giving up!

Here is a typical timeline of how your body responds once you give up:

**Within 20 minutes** ... your pulse and blood pressure return to near normal values.

**Within 8 hours** ... oxygen and carbon monoxide levels in the blood return to normal.

**Within 24 hours** ... you decrease your risk of having a heart attack.

**Within 36 hours** ... the nerve endings killed by cigarette smoke begin to repair, and your sense of taste and smell begins to return.

**Within 2 weeks** ... your circulation will improve.

**Within 3 months** ... any breathing problems, such as coughing and wheezing, will improve.

**Within a year** ... you halve your risk of heart disease compared to that of a smoker.

**Within 5 years** ... your risk of having a stroke is the same as a non-smoker.

**Within 10 years** ... your risk of lung cancer is similar to that of a non-smoker.

**Within 15 years** ... your risk of heart disease has reduced to that of a non-smoker.
I've decided I want to stop smoking, what do I do?

Stopping smoking is not easy but it can be done.

You need to really want to stop and need to be ready. Ideally, you should have motivation and support. You can visit your doctor who will give you advice and may be able to refer you to friendly stop smoking groups within your community.

If you would like immediate advice, please contact Yorkshire Smokefree Sheffield, an NHS organisation providing advice and support, including nicotine replacement therapy, for anyone who wants to stop smoking:

- **0800 612 0011** free from landlines
- **0330 660 1166** free from most mobiles

Alternative formats can be available on request. Please email: sth.alternativeformats@nhs.net

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