

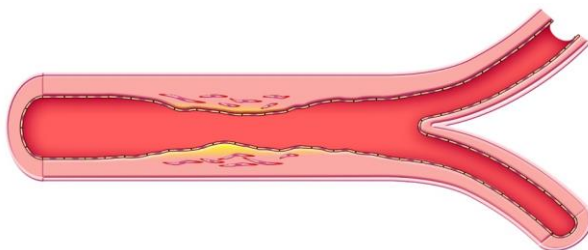
Erectile dysfunction and the heart

February 2016

What is the connection?

Erectile dysfunction (ED) is when you are unable to get or keep an erection suitable for sexual intercourse or another chosen sexual activity. The most common cause of ED is a lack of blood supply to the penis. The lining of the blood vessels (arteries) that supply blood to the penis is called the endothelium (pronounced en- do- thee- lee- um). This controls the speed with which blood enters the penis. If the endothelium does not work properly, blood can not enter fast enough or stay there long enough to get a firm erection that lasts sufficient time for satisfactory sexual intercourse (see our factsheet '[Erectile dysfunction](#)').

With aging, particularly when combined with an unhealthy lifestyle, the arteries become narrowed and damaged by a process known as atherosclerosis, which is similar to a pipe furring up. The link between ED and disease of the coronary arteries (those that supply the heart) is that they share the same endothelium, so atherosclerosis in the penile arteries is also likely to be present in the coronary arteries. This is why up to two-thirds of men with coronary artery disease (CAD) also have ED. The problem is that over half the men with ED may have CAD they don't know about. Finding and treating atherosclerosis early can help stop it from getting worse, so this is important.



Atherosclerosis
(narrowing) of
an artery

Can ED come before CAD?

Yes! The arteries in the penis are smaller in diameter (1-2mm) than the coronary arteries (3-4mm). This means that while atherosclerosis in the coronary arteries may not currently be causing any heart problems, the same disease in the smaller penile arteries causes them to become narrowed earlier, leading to ED.

It takes longer for the bigger coronary arteries to be affected by the narrowing process, but if it is allowed to continue, a man with ED and no heart complaint may develop a heart complaint within 3-5 years of his ED starting. This is why the penis has been described as 'the window to the hearts of man'. It means ED can help identify someone at future risk of a heart attack, giving us a chance to prevent it from occurring by lowering cholesterol and treating high blood pressure. The early detection and treatment of diabetes is also important.

What are the risk factors for ED and CAD?

They are the same. High blood pressure, raised cholesterol, cigarette smoking, obesity, diabetes, physical inactivity, low testosterone, depression and stress. So it is easy to see why ED and CAD often occur together – it is really a matter of which comes first.

What if you have ED and no sign of CAD?

It is very important to see your GP to assess your health and see if you have any of the risk factors described above. Lifestyle issues are important. Losing weight if needed, eating a healthy Mediterranean-style diet and increasing physical activity are the easiest changes to make, and these will benefit both ED and CAD (see our factsheets '[Body Mass Index \(BMI\)](#)' and '[The Mediterranean diet](#)').

By reducing your risk factors for ED and CAD, you reduce your chances of a serious health problem in the future. You may have had your ED successfully treated by tablets given to you by a friend or bought online, but getting your erection back without a check on the heart is asking for trouble.

Where can you get more information?

The Sexual Advice Association is here to help. We cannot give individual medical advice, but we can answer your questions on any sexual problems and put you in touch with local specialist practitioners. We also have a number of factsheets and booklets on sexual problems and related issues for men and women that can be downloaded from our website or requested. Please feel free to email us or phone our Helpline (our contact details are at the bottom of this page).

You can also visit the NHS Choices website at www.nhs.uk for information and advice on

many different health and lifestyle topics.

What is the Take Home Message?

ED may indicate a future heart problem – heed the warning because your life may depend on it – get checked out

Further reading

Download or request our factsheets '[Erectile dysfunction](#)' and '[Testosterone deficiency](#)' and/or our booklet '[Sex and the heart](#)'

Donate

By donating to the Sexual Advice Association, you will know that you are helping improve the lives of people living with sexual problems. If you are interested in donating, please click [here](#) or contact us for more information (details at the bottom of this page).

Thinking About Sex Day: February 14th

Launched by the Sexual Advice Association, Thinking About Sex Day (TASD) is designed to encourage everyone to think about the physical and psychological issues surrounding sexual activity.

