

## body&soul

# My grandmother died of an aortic aneurysm: should you be screened?

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**T**he aorta is the largest artery in your body. At about 2cm in diameter it is the size of a garden hose pipe, but under much higher pressure — enough to send a column of blood nearly 2m into the air — so you can imagine what happens if it ruptures. And this is how 3,000 people die in England and Wales every year, which is why The National Institute for Health and Care Excellence (Nice) is working on guidance to improve diagnosis and management.

My grandmother had an abdominal aortic aneurysm that burst and, by a cruel quirk of fate, I was on duty at the hospital when she was brought in by ambulance. She was lucky to make it that far. Many people collapse and die before the ambulance reaches them, and the outlook is far from good even if you do get to hospital.

Despite the very best modern surgery only one in five people survive a leak from an abdominal aortic aneurysm (AAA). The trick is to catch them early, at a stage when the wall of the aorta is starting to weaken and bulge, and this is where the national screening programme comes in.

Since 2013 every man in the UK is invited for an ultrasound scan of their abdomen when they reach 65 (older men who have missed out can self-refer). The test is not offered to women because they have fewer aneurysms, making screening less effective from cost and risk-benefit perspectives. However, UK researchers are evaluating whether targeted screening of slightly older women (aged 70), smokers and ex-smokers may be of benefit too.

In a typical year just over 300,000 men are screened, with a pick-up rate of about 1 per cent. In 2014-15 in England alone that led to 2,773



abdominal aortic aneurysms being identified, nearly 700 of which were operated on with a survival rate of 98.8 per cent (at 30 days post-op).

It is early days, so it is difficult to know exactly what would have happened to those men, or the other 2,000 or so with aneurysms that didn't need surgery, but that will be closely monitored in case they do. However, the best estimates suggest that across the whole UK the screening will prevent at least 800 deaths from ruptured aneurysms every year.

There have been significant advances in the surgical management of AAA since my grandmother's day. Then the only option was to open the abdomen, clamp off the leaking part of the hosepipe and replace it with a synthetic tube. It was not an operation for the faint-hearted, even when planned on a carefully prepared patient with a growing aneurysm. Performing the same procedure on someone whose aneurysm has already burst is probably one of the most difficult things surgeons do.

Since then less invasive techniques have become more popular, either using a keyhole procedure to put a sleeve around the bulging artery or even to insert one inside the aorta via a nick in a groin artery. Yet none of this is much help if your aneurysm isn't picked up early.

One in five men invited for screening in the UK don't take it up the invitation and one of the key elements in the new guidance is to encourage more to do so. Nice is also keen that older men who have missed the one-off screening test refer themselves, particularly if they are in a high-risk group (see below).

Warning signs are important too. Enlarging aneurysms — in men or women — can cause deep, constant mid-abdominal pain, backache and pulsating behind the navel (often normal in slimmer people). If the aneurysm bursts you will know about it, but symptoms include sudden or intense tummy or back pain, feeling faint, nausea, cold sweats and even loss of consciousness. Your only hope is to get to hospital as fast as possible, and even then it may be too late, as it was for my grandmother.

You can read the new draft guidance at [nice.org.uk](http://nice.org.uk)

### Risk factors for abdominal aortic aneurysm

- Current or past smoking
- High blood pressure
- High cholesterol levels
- Family history of AAA
- Existing circulation problems (eg past stroke or heart attack)
- Chronic obstructive pulmonary disease
- AAA is at least 3 times more common in men than women