

# Intravascular lithotripsy for calcified coronary arteries during percutaneous coronary intervention

Information for the public

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There is not much good evidence about how well this procedure works or how safe it is. This procedure can be used, but only when patients are having regular checks to see how well it is working or if it has caused problems. This is because of the concerns about its long-term effects and serious complications.

Coronary arteries (the main blood vessels supplying blood to the heart) can become narrowed or blocked with fatty deposits. At times, the fatty deposits contain calcium and the arteries become stiff (calcified). Usually, a thin wire is passed down the affected artery (percutaneously, that is, via an artery in the groin or arm), and a small balloon is inflated to widen the narrowed artery, squashing the fatty deposits against the arterial wall so that blood can flow freely. Sometimes a small wire mesh tube (stent) is also inserted in the artery and left in place to keep it open.

In a lithotripsy procedure, the balloon used to stretch the artery contains a device that delivers ultrasound shock waves. These waves break up the hard deposits (lithotripsy) to make it easier to insert the stent and to avoid damaging the artery. Lithotripsy allows the stent to fully expand, and reduces the chances of later heart problems that can be caused by stents that have not fully expanded.

The [NHS website](#) may be a good place to find out more. [NICE's information on interventional procedures guidance](#) has more about what a procedure is and how we assess them.

## Is this procedure right for me?

If you've been offered this procedure, your healthcare professionals should discuss with you what is involved, and tell you about the risks and benefits. They should talk with you about your options, and listen carefully to your views and concerns. Your family can be involved too, if you wish. All of this should happen before you agree (consent) to have the procedure. You should also be told how to find more information about the procedure. Read more about [making decisions about your care](#).

## Some questions to think about

- What does the procedure involve?
- What are the possible benefits? How likely am I to get them?
- What are the risks or side effects? How likely are they?
- What happens if the procedure doesn't work or something goes wrong?
- What happens if I don't want the procedure? Are there other treatments available?

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