

# Having a patent foramen ovale (PFO) closure

This leaflet aims to answer your questions about having the hole in your heart (known as a patent foramen ovale, or PFO) closed. It explains the benefits, risks and alternatives to having the procedure, as well as what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

## What is a PFO?

You have been diagnosed with a patent foramen ovale (PFO). This is a hole that babies have in their heart when they are in the womb, but that usually closes naturally after birth. However, in as many as one in four people, it does not close completely and remains 'patent' (open). The hole is in the wall that divides the upper two chambers in the heart which collect the blood returning from the body. In most people the hole does not cause any problems, but in some people it can lead to strokes.

## What happens during a PFO closure?

A small device made up of two umbrellas joined at the centre is put into the hole to close it up. The procedure normally takes around an hour and is performed under local anaesthetic, which means you will be awake, but you won't feel any pain. You should have received a copy of our leaflet, **Having an anaesthetic**. If you have not, please ask us for one.

Before the surgeon starts to repair the hole, the doctors will assess it using a small ultrasound probe that is put down your throat. This probe is known as a transoesophageal echocardiogram. At times we may also look at the heart using another type of ultrasound called ICE, which is inserted into a vein in your groin using a catheter (fine tube).

Once the team is happy that they can close the hole, a catheter will be inserted into a vein in your groin. If you already have a catheter in your groin because you have had an ICE ultrasound, we will put the catheter in your other leg. Inside the catheter there is a tiny balloon that the team will use to measure the exact size of the hole so that they can choose the best device to close it.

The device is folded so it can fit through a long tube called a sheath. It is then put through the catheter in your groin and passed to your heart. We use the probe in your throat and x-rays to make sure the device is in the correct position, so that the two umbrellas open on either side of the hole in the heart, thus closing it.

Occasionally the hole may not be closed completely by the device, leaving a small leak. This may close on its own in the future.

## Why should I have a PFO closure?

The treatment aims to close the hole in your heart, preventing you from having further strokes.

## What are the risks?

### The device may not hold:

When the device is opened and released, there is a small chance it may dislodge because the tissue/rim around the hole is floppy. This happens in less than two in 100 cases. If this happens we will try to retrieve the device, but it may be difficult to withdraw it fully back into the sheath. If we cannot retrieve the device, you may need to have an open heart operation to remove the device from the heart, and the hole would be closed at the same time by the normal surgical method.

During any procedure like this, there is the risk of a stroke caused by a blood clot or air passing from the sheath, through the bloodstream and into the brain. This occurs in less than one in 100 cases.

We minimise this risk by giving heparin during the procedure to keep the blood thin. Other precautions are also taken to reduce the likelihood of air passing through the heart.

You may get some bruising after the procedure, which could extend down your thigh. Some bruising is normal but if you are concerned you should seek medical advice.

## What are the alternatives?

In the past, the **only** way of closing these holes was by an open heart operation. During an open heart operation the function of the heart and lungs is taken over by a bypass machine and the surgeon closes the hole directly with stitches or patch material.

Surgery is a very successful and safe method, but it does leave a scar on the chest. In women, the surgeon may perform the operation through a cut across the lower chest, producing a better cosmetic result in the longer term.

In the last few years, the method described in this leaflet (operating through a catheter placed in your groin) has become available as an alternative to surgery.

You are free to choose between the surgical and the non-surgical methods to close the hole. Your decision will in no way affect the care you receive in our hospitals.

## How can I prepare for my PFO closure?

You will be contacted by a member of the cardiac team to arrange your admission.

Information about what you need to do and what you should bring with you can be found in the information sheet which will be sent to you before your admission. Your admission letter should give you instructions about taking your medicines before you come into hospital.

## Will I feel any pain?

The procedure takes place under anaesthetic, so you will not feel any pain during the procedure. After the procedure, you may experience some very mild discomfort in your groin (where the catheters were inserted) but this should quickly pass.

## What happens after the procedure?

For the first few hours after your procedure you will be attached to a cardiac monitor. This is a machine that is mounted on the wall behind your bed. You will have stickers on your chest that will be wired up to the monitor. This allows us to see your heart rate and rhythm. Likewise we monitor the oxygen level in your blood using a small electrical sensor attached to your finger.

After we have closed the hole using the device you will need to stay a further night in hospital. The day after your procedure, you will have two heart scans known as an echo and an ECG. If all is well you can then go home.

## What do I need to do after I go home?

We recommend that you are accompanied by a friend or relative on your journey home.

You will be given a letter to give to your GP. This will detail what has happened to you in hospital and which tablets you are on. You will need to take aspirin and clopidogrel to thin your blood and stop large clots forming on the device. How long you need to take these will vary. Please make sure you know how long you should continue taking these medicines before leaving hospital. You will be given a card explaining why you are taking this combination, and for how long you should take them.

When you go home you should be back to full activity, including driving, within the week. If you have a physical job we will advise you on when you can go back to work.

## Will I have a follow-up appointment?

We will invite you back to the clinic three months after the procedure. Providing all is well, you will then need to come back for yearly check-ups (which will include placing an ultrasound probe in your throat). If you have any questions, please do not hesitate to ask us.

## Contact us

If you have any questions or concerns about your ASD closure, please contact the **Nurse Case Manager for Structural Heart Disease** in the Cardiac Research Department on **020 7188 1093** or **020 7188 0998** (Monday to Friday, 9am to 5pm).

You can also contact the following staff members (Monday to Friday, 9am to 5pm):

**Charlotte Axford**, Secretary to Dr Brian Clapp **t: 020 7188 1049**.  
**Dr Brian Clapp**, Consultant Cardiologist **t: 020 7188 1049**.

If you have any queries outside of these hours please contact your GP or NHS 111 (see below).

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

## **Wards**

**Becket Ward:** 5<sup>th</sup> floor East Wing **t:** 020 7188 8839

**Stephen Ward:** 7th floor East Wing **t:** 020 7188 8843

## **Pharmacy Medicines Helpline**

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

## **Patient Advice and Liaison Service (PALS)**

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

**t:** 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

## **Language Support Services**

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

**t:** 020 7188 8815 **fax:** 020 7188 5953

## **NHS 111**

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

**t:** 111

## **NHS Choices**

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)

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**t:** 0848 143 4017 **e:** [members@gstt.nhs.uk](mailto:members@gstt.nhs.uk)

**w:** [www.guysandstthomas.nhs.uk](http://www.guysandstthomas.nhs.uk)