

# Aortic stenosis: transcatheter aortic valve implantation (TAVI)

## Information for patients, relatives and carers

### Introduction

This leaflet provides information about transcatheter aortic valve implantation (TAVI) and what to expect if you agree to have this treatment. This information is not meant to replace the discussion between you and your doctor but aims to help you understand more about what you discussed. If you have any questions, please speak to our secretary who will be able to direct your call to an appropriate member of the team.

### What is aortic stenosis?

The aortic valve is a small flap of tissue between the lower left pumping chamber of your heart and the large artery (aorta) that takes blood around your body and to your vital organs. The aortic valve ensures that the blood runs in one direction only.

Aortic stenosis occurs when the valve narrows because of a build-up of calcium (chalk). This means that the valve can't work properly and blocks the flow of blood out of the heart. Your heart then has to work harder to force blood past the valve.

Symptoms of aortic stenosis are:

- weakness and shortness of breath during physical activity
- chest discomfort
- abnormal heart beats
- fainting spells

### What is TAVI and what are the benefits of having this procedure?

A new aortic valve may improve how well your heart works and relieve some of your symptoms. It can also increase your quality of life and life expectancy.

Replacing the valve is normally done by open heart surgery, but your cardiologist (heart doctor) and surgeon do not believe this type of surgery is suitable for you. They may suggest TAVI instead. TAVI uses less anaesthetic and is less invasive than open heart surgery so the risks are therefore lower for some patients than the risk of open heart surgery.

Although some patients will need a general anaesthetic, TAVI is normally carried out using local anaesthetic with sedation given (as needed) throughout the procedure. A consultant anaesthetist will make sure you are comfortable.

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## What are the risks associated with TAVI?

TAVI is a high risk procedure but we screen all of our patients carefully to ensure the complication rate is minimised. Despite its high risk, evidence shows that you will live longer and have fewer symptoms if you have the treatment.

Risks vary from patient to patient but published data shows that there is a 5 per cent risk of the following complications:

- bleeding from the site of insertion or damage to the blood vessels
- heart attack
- stroke
- death

That may sound alarming, but the figures mean that 95 out of 100 people **will not** be affected by those complications.

There is also a 10 per cent risk of heart rhythm disturbance which will require a pacemaker.

In some cases, if there is a serious complication, we may have to perform open heart surgery. A cardiac and vascular surgical team is always available during a TAVI procedure in case this is necessary.

## Is TAVI right for me?

If you would like to be considered for this procedure, your doctors will need to do some tests to decide whether it is suitable for you.

These tests include:

- a routine physical examination
- a review by a cardiologist and cardiothoracic surgeon, and, depending on your age, a care of the elderly physician
- an electrocardiogram (ECG), which measures your heart rhythm
- blood tests
- a transthoracic echocardiogram (ECHO) – in some cases a transoesophageal echocardiogram (TOE), where you swallow a small probe which looks at your heart and nearby blood vessels, may also be necessary
- a CT scan, which allows us to look for calcium formation in the aortic artery and in the arteries of your legs
- lung function tests, which measure how well your lungs are working

Some patients may need additional tests which will be explained by your doctor.

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## Test results

If you are suitable for TAVI we will send you a letter giving you a date to come into hospital. You may need to come in the day beforehand to prepare for the procedure.

You will be admitted to one of the cardiology wards at Hammersmith Hospital. You will need to contact the cardiology bed manager on the day of your admission at 12 noon to confirm that there is a bed available (please see the contact details on page 7).

## How do I prepare for TAVI?

If you are taking anticoagulation tablets, warfarin or a novel oral anticoagulant (NOAC) you must stop taking them 3-5 five days before your procedure. Please speak to your doctor about this and about whether you need an alternative blood-thinning medication during that time. **Do not stop taking warfarin tablets or other blood thinners until you have discussed this with your doctor.**

Please only bring essential items that you need for your hospital stay as there is limited space on the wards.

## What happens during the procedure?

Depending on your test results, your new valve will either be implanted:

- through a small puncture in your groin
- under your collar bone, or
- through a small cut in your chest

Your doctor and surgeon will decide which option is best for you.

An anaesthetist will give you sedation throughout the procedure as needed.

The procedure lasts for two to three hours. As you will not be able to move during this time we will insert a catheter (a tube to empty the bladder) for female patients, and a convене (like a condom) for male patients.

If you do not already have a pacemaker, we will insert one temporarily for the procedure to allow doctors to increase your heart rate during the valve replacement. They need to do this to ensure the valve is correctly positioned. It will be removed after the procedure if there are no complications.

## What happens after the procedure?

We will transfer you to the coronary care unit (CCU) or cardiac recovery unit (CRU). You will be attached to a heart monitor and the nurse looking after you will inspect your wound site and perform regular observations. You will have to lie flat for the first couple of hours after the procedure.

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Both the physiotherapy and cardiac rehabilitation teams will visit you on the ward and encourage you to get out of bed and back on your feet as soon as you can. They will advise you on a healthy heart-friendly diet and suitable exercise programme.

Visiting times are from 10.00 - 12.30 and 15.00 - 20.00. Rest is an essential part of your recovery and so we ask all visitors to call the ward before visiting. Please be aware that only two visitors are allowed at your bedside at any one time.

Please note that fresh flowers are not allowed on any of our wards for infection control purposes.

## When can I go home?

The average length of stay is three to five days. However, some patients are able to go home earlier. The ward cardiology team will review you each day and decide when you can be discharged.

You will not be able to go home by yourself or take public transport. Where possible, we advise that a relative or friend drives you home or accompanies you in a taxi. We can only provide hospital transport in exceptional circumstances. Please speak to the nurses on the ward if you have any concerns about your journey home.

We will give you 14 days' worth of tablets to take home. You will need to see your GP within one week of going home to renew your prescription. We will give you a letter listing your tablets and describing the procedure and your stay with us. A copy of this will be sent to your GP.

## Your recovery

When you leave hospital, give yourself one week or so to get your strength back before returning to everyday activities. Avoid anything strenuous, such as lifting heavy objects, shopping and excessive pulling or pushing (e.g. gardening or vacuum cleaning).

Start with regular walks and increase their length on a daily basis. You do not have to avoid climbing stairs – just take them slowly and steadily at first.

After this time you should be back doing the things you used to do. You may find that you can do more if the aortic stenosis was holding you back before.

**Please remember that this information should be used as a guideline only – everyone is different.**

## Is there anything I need to watch out for at home?

If you notice that your insertion site becomes red, inflamed or is oozing, please contact your GP immediately as these may be signs of infection.

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If your wound starts to swell or bleed or you feel more breathless than before, seek help immediately. During working hours, you can contact the cardiac catheter lab at Hammersmith Hospital on 020 3313 1661. Out of hours, you can contact your GP or attend your local walk-in centre or A&E.

### When will I be able to drive again?

You are not legally allowed to drive for one month after the procedure. If you have a large goods vehicle (LGV) or passenger carrying vehicle (PCV) licence, you will have to have further testing before you get your licence back. Please discuss this with your doctor and your employer.

### Can I travel by plane?

It is safe to fly to any destination one month after the procedure, provided that you have not had any complications and you are the passenger and not the pilot.

### When can I return to work?

This will depend on many factors, such as the overall state of your health and the type of work you do. Please discuss this in more detail with your doctor.

### Will I have to come back to hospital for a follow-up?

Yes. We will schedule a follow-up appointment for you four to six weeks after your procedure. You will receive a letter in the post confirming the date and time.

On each visit to hospital you will have an ECG to assess the rhythm of your heart and an ECHO to check how well the new valve is working.

Please do not hesitate to speak to one of your doctors or ward nursing staff if you have any questions or concerns.

### Contact details

**TAVI Secretary / clinical nurse specialist:** 020 3313 2115

A7 ward: 020 3313 3502

C8 ward: 020 3313 1301

Cardiac Catheter Lab: 020 331 3 1267

Cardiac recovery unit, Hammersmith Hospital: 020 3313 8937

**Cardiology bed manager:** 020 3313 1000 pager 9309

**Patient transport booking centre:** 020 3311 5353

**British Cardiac Patients Association (BCPA) helpline:** 01223 846845

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## How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at **imperial.pals@nhs.net** The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to make a complaint by contacting our complaints department:

Complaints department  
Fourth floor  
Salton House  
St Mary's Hospital  
Praed Street  
London W2 1NY

Email: **ICHC-tr.Complaints@nhs.net**

Telephone: **020 3312 1337 / 1349**

## Alternative formats

This leaflet can be provided on request in large print or easy read as a sound recording, in Braille or in alternative languages. Please email the communications team: **imperial.patient.information@nhs.net**

## Wi-fi

We have a free wi-fi service for basic filtered browsing and a premium wi-fi service (requiring payment) at each of our five hospitals. Look for WiFiSPARK\_FREE or WiFiSPARK\_PREMIUM