

## Patient information

# Cartiva implant surgery

### Introduction

This leaflet will explain what will happen when you come to the hospital for an operation to have a Cartiva implant inserted into your toe joint.

### Why do I need this surgery?



You have been diagnosed with osteoarthritis in the joint at the base of your big toe. This joint is called the first metatarsophalangeal joint (MTPJ).

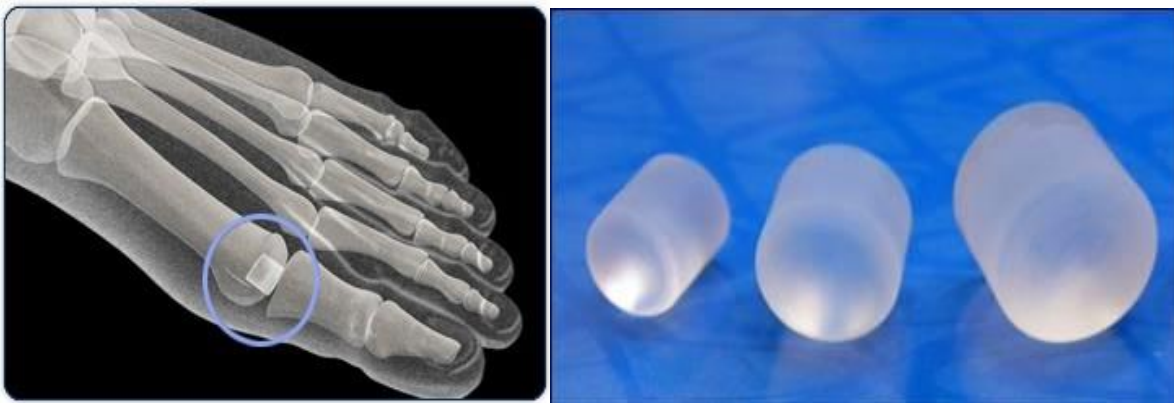
Osteoarthritis is a condition that results in thinning and wear of the cartilage within your joint. It is a progressive condition with prolonged wear and loss of cartilage. In the first MTPJ arthritis causes the joint to become increasingly stiff and painful, often affecting all types of activity. When the pain becomes severe and has a significant impact on your daily activities, surgery is usually a good option, as long as all other treatments have been tried.

Until now the gold standard treatment is a first MTPJ fusion. If your toe has already become very stiff then it is likely that fusion surgery would be the best option. However in those with arthritis and a good range of movement, fusion surgery may be less well tolerated.

Cartiva is a new implant that is intended to improve pain and function in patients with osteoarthritis in the first MTP joint, whilst maintaining their remaining range of movement.

## **What is a Cartiva implant?**

Cartiva is a new synthetic cartilage implant that is designed to replace the damaged cartilage surface. It is made from polyvinyl alcohol (PVA), a material that mimics the properties of natural cartilage. It has been used in a number of medical device applications for more than 20 years. However its use in the first MTPJ is a relatively new concept.



## **What evidence is there that it works?**

The MOTION study showed good outcomes at two years in a multicenter study that compared the Cartiva implant to fusion surgery. Further longer term follow-up is not yet available and therefore we don't yet know how long the implants can last. It is important you appreciate this before going ahead with surgery.

Further information on CARTIVA can be found online at [www.bio-vation.co.uk](http://www.bio-vation.co.uk)

## **What if my pain doesn't get better?**

Whilst the majority of people experience a significant reduction in pain from this procedure, we cannot guarantee full pain relief and some patients have ongoing symptoms. The MOTION study has highlighted that less than 1:10 patients have ongoing symptoms that require further surgery. The Cartiva implant does not adversely affect the outcome of any future fusion surgery.

## What does surgery involve?

The procedure is performed as day surgery procedure either in the day surgery unit or in the main hospital building. On the day of surgery you will be admitted to the surgical ward where the nursing staff will prepare you for surgery.

Your surgeon will remind you of the surgical process and possible complications and will ask you to sign a consent form. The operation is performed under general anaesthetic and the anaesthetist will discuss this with you on the ward.

The operation will take about 45 minutes and is performed using a tourniquet around your thigh or ankle. After the operation you will be taken back to the ward and given a drink and something to eat. You will be advised on painkillers and once ready you will be discharged home. You will be given a post-operative shoe to wear. You must be driven home and have a responsible adult caring for you for 48 hours.

You will be advised of your follow up appointment date, either on the day or by letter in the post.

## How will I feel afterwards?

Although long-acting local anaesthetic, administered during the procedure, should control most of the pain for about 8 to 10 hours, you can expect some pain or discomfort after the operation. Painkillers will be discussed with you on the day of surgery and can be prescribed for you to take home if required.

## Recovering from surgery

### The first two days

Restrict your activity to going to the toilet only. You will be able to stand and take weight on your heel. Bend your knee, ankle and toes periodically to stimulate circulation. Most people are able to stop taking their painkillers after 48 hours. Do not leave the house, drive or get the foot wet.

### 2 - 14 days

You should aim to be moving around taking weight through the post-operative shoe for maximum of 20 minutes in each hour. The rest of the time your foot should be elevated. You do not need to wear the shoe unless moving. **Do not** go out of the house, drive or get your foot wet until the wound has healed and you have been seen in the post op clinic.

## **At 14 days**

At the first post-operative appointment you will usually have the stitches removed. Bring a wide pair of shoes, eg trainers, with you which you should be able to wear once the stitches have been removed. You will be advised to gradually increase your activity and gently exercise your big toe. You may wash and bath normally and apply moisturiser to improve the skin condition. Apply ice compresses to reduce remaining swelling. If you drive, you may do so when you can walk comfortably.

## **At six weeks**

Second post op visit and x-ray. The foot gradually returns to normal and the swelling reduces. You may continue applying ice compresses to the foot several times each day to reduce swelling.

## **At 12 weeks**

You will have been walking much more normally at this stage. Continue regular ice packs to reduce any remaining swelling. Gradually, you will recover strength, flexibility and mobility and should be experiencing the full benefit of surgery.

## **Long term follow-up**

As this is a new implant you will have regular follow-up appointments. These will be at 6, 12, 26 weeks. Then yearly till five years. At each visit you will be asked to fill in a questionnaire. These will be kept by the foot and ankle unit to monitor your progress and that of the implant.

## **What are the possible risks and complications?**

### **General complications of foot surgery**

- **Pain:** There will be post-operative pain. For most people the pain passes after 24 - 48 hours and is tolerable with regular painkillers (following dosage recommendations).
- **Swelling:** This is a normal outcome of any operation. The extent of post-operative swelling varies and cannot be predicted. In some people the swelling reduces within a matter of weeks and in others could take many months. Application of an ice pack greatly reduces the swelling.
- **Infection:** There is a small risk of infection with all surgery. This would be treated with relevant antibiotics. Look out for redness and discharge from the wound.

- **Deep vein thrombosis:** Also known as venous thromboembolism (VTE), this is a rare complication of foot surgery. There is also an increased risk if you take the contraceptive pill, HRT or smoke. If you have had a DVT in the past, please tell your surgeon. If you are thought to be at increased risk, you will have an injection to thin your blood on the day of surgery. This might need to be repeated for up to seven days following surgery.
- **Complex Regional Pain Syndrome (CRPS):** This is a rare but difficult complication. This is an abnormal response of the nervous system to surgery but can happen after simple trauma. This can lead to a variety of painful sensations in the foot, which require medical and pain relieving techniques.
- **Scarring:** As a result of your surgery you will have a scar on your foot. To begin with the scar will be raised, red and sensitive but with time it will usually settle.

### Specific complications of Cartiva implant surgery

- **Joint stiffness:** This is fairly common in the early stages and usually improves with time.
- **Implant subsidence:** Rarely your bone doesn't support the implant properly and it can sink into the bone leading to recurrent pain. If this happens and is severe then you can undergo revision surgery.
- **Wear:** The implant will wear out eventually. Currently no issues have been found with debris as the prosthesis wears. Longer term studies will help us with this after the two year stage.
- **Allergic reaction:** The potential for your body to react to this substance is very low indeed. Rare cases of tissue reaction have occurred and this can be treated by implant removal.

*If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo)*

<https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust>

