Hammer toe information sheet. (ref. A15)

A hammer toe is a deformity of the first small toe joint with in toes. (proximal inter-phalangeal joint) This deformity can occur in the second, third, fourth or fifth (relatively rare) toes, causing it to be permanently bent, resembling a hammer. This abnormality can create pressure on the foot when wearing shoes and cause discomfort and problems walking. The joints themselves can be arthritic and painful.

There is a choice of different procedures to straighten a hammer toe. This information sheet has been written to help you choose which procedure is best for you.

Fig 1 Hammer toe . wires Fig 2 Arthrodesis with K



Fig 3. Smart toe implant

An **arthrodesis** is a surgical procedure to treat hammer toes. The deformed joint is fully removed and the apposing bone ends fused together in a corrected position. The joint will no longer move. The joint closer to the end of the toe will still move. The joint where the toe joins the foot will also continue to move.

1. K-Wire Arthrodesis. Traditionally hammer toe correction is performed by arthrodesis surgery using K-Wires. The procedure is successful in most cases and has been performed for many years. The deformed joint is removed and the bone ends are secured together with a K-wire which protrudes though the tip of the toe. The foot must be kept dry, dressed and the k-wire protected in a post operative shoe for six weeks after the operation. At 6 weeks, the Kwire is removed and the foot can then be placed in normal footwear and normal bathing can be resumed. The toe joint will not bend after this procedure. In a review of 118 toes treated by K-wire arthrodesis, Pain was relieved in 92% of patients and subjective satisfaction was noted by 84% of patients. Minor complications occurred in 5%. (Coughlin MJ, Dorris J, Polk E. Foot Ankle. 2000:21:94-104.)

2. Smart toe arthrodesis: The NHS trust is introducing a new 'smart toe implant' for the treatment of hammer toes at the Pulross day surgery unit. The implant stays in permanently. The advantage of this implant is the potential for guicker recovery and greater predictability in the correction of the toe alignment. A skin incision is made to allow removal of the deformed joint and to allow access to place the implant. Healing takes between 10-21 days and then you can return to your normal activities and normal foot wear. The joint with the smart implant will not bend after the procedure. This procedure is relatively new. Outcomes published from 170 patients 12 months after smart toe implant surgery have been published. Patients stated 94% excellent satisfaction, 4 % good satisfaction and 1% poor satisfaction. (M Delni. Foot & Ankle Centre. Geneva. Switzerland.)

<u>3. Arthroplasty:</u> An arthroplasty is the removal of the hammer toe joint deformity. The soft joint lining (capsule) is stitched between the bone ends. The remaining joint is flexible afterwards. This is suitable for 4th and 5th toes so they bend to fit into shoes. The toe initially feels less stable, and the deformity occasionally can re-occur. A review 100 arthrplasty procedures 12 months after surgery. Patients stated a satisfaction of 9.3 (maximum score 10) Floating toe was the most common complication encountered, and although this did decrease the level of patient satisfaction in seven patients it was not a cause of footwear irritation or pain in any patient. (O'Kane C, Kilmartin T. Foot Ankle Int. 2005 Apr;26(4):320-5.)

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Complications: Pain, infection, further deformity, numbness, acute nerve pain, loss of blood supply leading to loss toe, blood clot - including DVT or pulmonary embolism.. Allergic reaction to implants, K-wires or sutures, rarely occur but can make their removal necessary. The occurrence of these complications is very low but you should carefully consider whether your toe deformity is causing you sufficient pain or discomfort to warrant taking these risks.

OVERVIEW	
Operation time	Usually between 15 - 30 minutes
Incision placement	On the top of the foot over the bone to be corrected
Stitches	We try to use dissolvable stitches (where possible)
Fixation	Internal fixation (bone screws or pins) are usually used
	Smart toe implant to not need to be removed. K-wires are removed after 6 weeks.
Will I have plaster?	This not normally necessary. If your particular operation requires a plaster we will let you know in advance
Is this a Day Procedure?	Yes, you can usually go home the same day (you will usually be admitted for half a day)
Estimated time off work	Non-manual work approximately 2-3 weeks
	Manual work 4-5 weeks
INDICATIONS FOR THE PROCEDURE	Pain / callous / corn formation on the toe/s
	Severe toe deformity to allow relocation of toe
	Difficulty with shoe fit despite wearing sensible footwear
ALTERNATIVE TREATMENTS	Manage your symptoms by altering activity levels, using painkillers, changing footwear/ extra- width extra depth or special footwear possibly with an in-shoe foot support.
	Regular podiatry care to reduce painful lesions. Steroid injections for painful joints
GENERAL RISKS OF SURGERY	The general risks of foot surgery are outlined in the Pre-operative Information Booklet with which you will have already been provided YOU SHOULD READ THIS LEAFLET IN CONJUNCTION WITH THE PREOPERATIVE INFORMATION BOOKLET
MORE INFO BY:	1 Speaking with your consultant or one of his team

2 Reading the information provided

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The operation can be performed comfortably under a Local Anaesthetic block, which is achieved by either a series of injections around the Ankle, or an injection behind your Knee. You will be fully awake during the operation and will be able to feel touch, pressure and vibration, but you will not feel any pain. If you do not wish to consider having the operation performed whilst still awake, or your Consultant does not feel this is the best option for you, you will be offered Local Anaesthetic with sedation or General Anaesthesia. If this is the case then you will be referred to a different surgical team to facilitate this. Your consultant will be happy to discuss the Anaesthetic options with you.

The operation takes about half an hour, although you will be in the Day Surgery unit for some time before the surgery and afterwards, to allow you an opportunity to rest post operatively. You must have a competent adult at home for the first day and night after surgery. This allows us to be sure you will be safe for the first night. First 2-4 days

- This is the worse time for pain but you will be given painkillers to help. You must rest completely for 2-4 days.
- You will be able to stand and take weight carefully after the operation, but you must rest, with your feet up, as much as possible.
- You should restrict your walking to going to the bathroom. You can get about a little more after 3 days.

One week after surgery

- You may need to attend for your foot to be checked and re-dressed.
- You may start to do a little more within pain limits. Pain means you are doing too much.

Two weeks after surgery

- Sutures will be removed if the skin has fully healed.
- You will not need a bandage, and you can get the foot wet.

Between 2-6 weeks after surgery

- The toe starts to return to normal and you can return to shoes (3-5 weeks).
- The toe and foot will still be quite swollen especially at the end of the day.
- You will need to massage and apply ice packs to your toes daily to reduce pain and swelling. This should continue for 3 months.
- You may return to work but may need longer if you have an active job
- You may return to driving if you can perform an emergency stop. You must check with your insurance company before driving again.
- Whilst normal activity will be resumed, sport should be avoided.

Between 8-12 weeks after surgery

- The foot should continue to improve and begin to feel normal again.
- There will be less swelling.
- Sport can be considered after 3 months depending on your recovery.

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