

Further information and advice can be obtained from:

NHS 111

☎ 111

NHS Choices online

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

MTW NHS Trust is committed to making its patient information accessible in a range of languages and formats. If you need this leaflet in another language or format please ask one of your clinical care team or the Patient Advice and Liaison Service (PALS). We will do our best to arrange this.

Maidstone and Tunbridge Wells NHS Trust welcomes all forms of feedback from our service users. If the standard of service you have received from the Trust does not meet your expectations, we want to hear from you. Please speak with the ward manager or the nurse in charge in the first instance, or you can contact the **Patient Advice and Liaison Service (PALS)** on:

**Telephone:** ☎ 01622 224960 or ☎ 01892 632953

**Email:** [mtw-tr.palsoffice@nhs.net](mailto:mtw-tr.palsoffice@nhs.net)

**or visit their office** at either Maidstone or Tunbridge Wells Hospital between 9.00am and 5.00pm, Monday to Friday.

You can be confident that your care will not be affected by highlighting any areas of concern or making a complaint. The Trust will retain a record of your contact, which is held separately to any medical records. If you are acting on behalf of a patient, we may need to obtain the patient's consent in order to protect patient confidentiality. More information on PALS or making a complaint can be found on the Trust's website: [www.mtw.nhs.uk](http://www.mtw.nhs.uk) or pick up a leaflet from main reception.

Issue date: April 2022

Database reference: RWF-PAE-LEA-PAT-46

Review date: April 2026

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This copy – REV1.0

## Kirschner Wires (K-wires)

Information for patients and carers



### Riverbank Unit: Maidstone Hospital

☎ 01622 220241/ 220242

Open Monday – Friday, 7.30am – 6.00pm

### Woodlands Ambulatory Unit: Tunbridge Wells Hospital

☎ 01892 638032/ 633346

Open 7 days a week, 7.00am - midnight

### Hedgehog Ward, Inpatient Ward: Tunbridge Wells Hospital

☎ 01892 633525

Open 7 days a week, 24 hours a day

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This leaflet has been produced to give you information about your child having K-wires inserted to repair a fracture; however, it is not a complete guide, so if you have any questions or you require further explanation please do not hesitate to ask a member of staff.

### **What are K wires?**

Kirschner wires (K-wires) are stiff, straight wires that are sometimes needed to repair a fracture (broken bone). K-wires are also commonly called 'pins'.

If your child has a fracture that requires surgery, they may need K-wires to help hold the bones in place until they heal. They are most commonly used for supracondylar (elbow) or wrist injuries. Depending on the location and severity of the fracture, sometimes multiple K-wires are needed.

K-wires are only needed temporarily – once the bones have healed, the K-wires are removed during an outpatient appointment.

### **What to expect with K-wire insertion?**

A surgeon will need to put K-wires in during an operation under a general anesthetic. The K-wires ends stick out of your child's skin. This is so the wires can be removed approximately four weeks after surgery once the bones have healed and without the need for another operation.

The wires are covered with a padded dressing and the injured area is placed in a removable backslab, which is a partial cast held in place with bandages.

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- K-wires are usually removed at an outpatient appointment without the need for another operation.
  - Your child may need some simple pain relief and distraction during the K-wire removal procedure.
  - If at any stage you have concerns about plaster care, pain management or complications, or you are worried for any other reason, take your child back to their treating hospital or your closest hospital emergency department.

### **Common questions our doctors are asked:**

#### **Will my child set off metal detectors if they have wires in?**

Metal detectors will not usually detect these wires. There are thousands of people who have large amounts of metal permanently in their bodies who go through airports daily; often without setting off metal detectors.

#### **How thick are the K-wires, and how much sticks out of the skin?**

The wires typically have a diameter between 1.6 mm and 2.0 mm in diameter and about 2 cm sticks out from the skin.

#### **I'm worried that my child will be awake while the wires are removed. How painful is the procedure?**

The removal of K-wires is usually very quick – each wire removal only takes one to two seconds. Your child may feel tugging, along with some very brief discomfort.

Young patients who have had the procedure usually say 'it wasn't too painful' or 'it's OK, it's just a little sore'. Parents often report that their child is a little upset straight after the procedure, but they recover quickly and are fine within a few minutes.

#### **If you have any queries please speak to:**

Paediatric Orthopaedic Pain Nurse Specialist, Julie Doherty on telephone number 07894 327226 (Monday to Friday, 09:00 to 17:00).

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- Depending on your child's injury, the limb may be placed in a sling for comfort or another plaster for a few more weeks. Your surgeon will discuss this with you at your appointment.

### Care at home after the K-wires are removed

- If your child's K-wires and backslab have been removed, keep any dressings dry for 24 hours. After 24 hours, your child can have a shower, but afterwards you will need to replace wet dressings with new dry dressings. Keep your child's wound out of other water (e.g. baths, swimming pools, beaches) for five to seven days until the pin sites have healed.
- If your child has a new cast applied, follow the same cast care instructions given to you after the initial operation.
- Your doctor will let you know when you need to return to have the cast removed.

Your child's skin may be dry and itchy after the cast has been removed. Once the pin sites have healed, bathe the skin with warm soapy water, and apply a plain, non-perfumed moisturiser.

After a fracture, children normally regain strength by gradually participating in gentle activity and play. Physiotherapy is usually not needed.

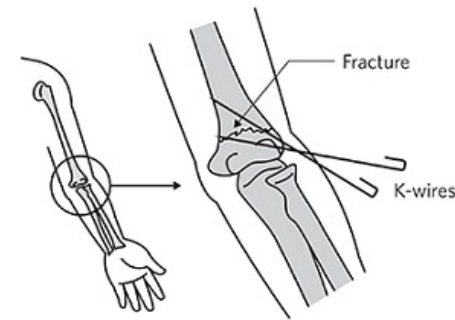
### Key points to remember:

- K-wires are stiff straight wires (commonly called pins) inserted during an operation to help hold a fractured bone in the correct position for healing.
- Your child will have a dressing to cover the K-wires, and a backslab or splint in place for three to four weeks.
- It is important that you or your child does not try to see or touch the wires as this may disturb them.

### K-wire Insertion



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Kids Health Information www.rch.org.au



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Kids Health Information www.rch.org.au

### Care at home while the K-wires are in

Your child will not be able to see or feel the wires under the back slab.

Keep the cast and bandages dry and initially provide simple pain relief of paracetamol and ibuprofen regularly for a few days, then reduced to as required.

Your child may have a plaster change after 1 – 2 weeks for a wound check and a complete plaster will be applied. Please give some paracetamol and/or ibuprofen 30 minutes prior to this as it is sometimes a little uncomfortable but should not be painful as the wires should not be disturbed. Your child can choose the colour of the plaster at this appointment.

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### When to see a doctor

Even though complications are rare, you will need to monitor your child at home for possible problems after K-wire insertion. Irritation where the wires exit the skin is common, but infection is rare (about one in one hundred patients) and is easily treated with antibiotics.

If your child shows any of the following signs of infection, you should contact your doctor the hospital:

- increased pain, or pain that you cannot control with simple pain relief (especially new pain that starts two to three weeks after surgery)
- a temperature over 38°C
- a bad smell or ooze coming from the cast
- you are worried for any other reason.

### Removal of K wires in clinic

After about 4 weeks the bone will have healed enough for the K-wires to be removed. The wires are usually removed in fracture clinic. Occasionally younger children or children with additional needs, may need to be admitted to hospital to have the wires removed under a general anaesthetic or with a sedation.

An x-ray may be needed to confirm that the bone has healed enough for the wires to be removed.

### Preparation for removal

It's important that your child understands what will happen during the procedure, so it's a good idea to talk to them about it advance; depending on their age and understanding. If you think your child (or you as a parent/carer) will be particularly anxious or worried and need additional support during the procedure, please let us know before your appointment.

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If your child likes a particular book, video or game, it is useful to bring this with you to the appointment so that it can be used to distract your child from the procedure.

### The procedure:

- Before you come to the clinic please give your child some paracetamol or Ibuprofen in preparation for the procedure. Always follow the instructions on the packet.
- Distraction techniques will used throughout the procedure to help reduce fear and anxiety, you are encouraged to help comfort and reassure your child.
- Clear explanations and reassurances will be given by the team throughout.
- The plaster cast will be removed in the plaster room. This does not hurt but the noise and vibration of the plaster saw can be alarming for young children.
- When the cast and dressing has been removed the wires can be seen sticking out of the skin. It helps to reassure your child in advance that this is normal.
- Entonox (gas and air) may be used for pain relief for children around 5 years and over. The nurse will explain to your child how to use this and how it works.
- The sites around the wires are cleaned before they are removed using special pliers.
- The procedure is quick and may feel strange, like a tugging that lasts 1-2 seconds but is not usually too uncomfortable.

### After the procedure

- The small wounds (pin sites) will bleed a little bit; gauze will be applied with some pressure for 30-60 seconds. Once the bleeding stops, the wounds will be covered with a dressing.
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