



## Plaster Room

# Total Contact Cast

### Introduction

You have had either a total contact cast (TCC) or a split total contact cast (which is a removable-bespoke cast) applied due to one of the following reasons:

- Charcot foot
- Non-healing foot ulcer
- Fracture

TCC is the recognised gold standard treatment for diabetic foot ulceration and Charcot foot. A TCC provides the following benefits:

- Structural protection of bone and joint disintegration in Charcot
- Oedema (swelling) control
- Helps correct foot and ankle deformity
- Redistribution of high pressure areas under the fore and midfoot which could cause ulceration
- Can help with pain relief if non-neuropathic.

You could be required to be in the TCC for many months, and in some cases, over a year. This will require you to make frequent follow-ups to clinic. Your TCC will need to be changed regularly in the early stages, at one or two week intervals, to make sure that the cast does not become loose due to the reduction in swelling. The skin will be sensitive and will be inspected at these points for any breakdown, pressure areas or friction rubs. Once swelling is minimal, and there are no concerns with your skin condition, you will be reviewed monthly.

### Split total contact cast

You will have had a split TCC applied due to the need for regular review of your affected limb. This may be due to a foot ulcer that requires regular wound care or current poor skin condition that requires monitoring daily. If this is the case, the split TCC should only be removed by the appropriate person at the noted intervals.

## After your TCC has been applied

It is important to take care and regularly **do** the following:

- ✓ Take great care of your TCC until it has completely dried
- ✓ Move all other joints not immobilised by the TCC several times every hour
- ✓ Wear the cast shoe provided to protect your TCC when walking (keep weight bearing to a bare minimum)
- ✓ Keep the limb elevated when not in use, especially in the early stages, to help reduce the swelling
- ✓ Inspect the TCC daily for any signs of damage, moisture or staining
- ✓ Use walking aids as instructed.

It is important that you take great care **not to do** any of the following:

- ✗ Get the TCC wet, as this will cause skin problems
- ✗ Push objects down the TCC for any reason eg to scratch, as wounds and ulcers can develop
- ✗ Cut or adjust the cast yourself
- ✗ Attempt to dry your cast with a hairdryer, as your cast will become hot and may burn you
- ✗ Let the limb hang down unless it is being used, especially during the first 48-72 hours (the limb needs to be elevated at heart level to reduce the swelling)
- ✗ Remove the cast.

## Washing and Cleaning

You should never allow your TCC to become wet as this will weaken it. There are numerous companies that offer covers for protection when washing, or you can use a plastic bag to cover up the cast when you have a bath or shower. Use sticky tape or a rubber band to seal the bag to make it watertight. Always remove the bag as soon as you can to avoid causing sweating, which could also damage the cast.

## Exercises

It is important to exercise all joints not immobilised in the cast and to repeat every hour until fully functional. This helps to reduce swelling, stiffness, maintain some muscle strength and improve circulation. This can be painful and difficult to start with, but should improve within the first week.

- Wiggle your toes regularly
- Fully straighten and bend your knee
- Gently clench the muscles in the back of your calf and thigh to improve blood flow
- Move your hip.

## Driving

Your insurance may not be valid whilst you are being treated within a cast. It should be stressed firmly that patients **DO NOT** drive whilst wearing a cast.

## **Flying**

Many airlines require your cast to have been applied at least 48 hours prior to flying or may require your cast to be split beforehand. Please seek advice from your airline before flying.

## **TCC removal**

When the time has come for your TCC to be taken off, it will be removed by the oscillating plaster saw, shears or scissors, depending on which type of casting material has been applied to you. After removal of your cast upon improvement in your condition, you will be required to wear a removable walking boot for a period of time whilst weaning into appropriate footwear provided by the Orthotist.

## **After your TCC has been removed**

Due to the long period of time that your limb has been immobilised, upon removal of your TCC, you may experience some of the following, so do not panic:

- You may find that your leg feels thin and strange; this is normal
- You may experience swelling, discomfort and stiffness in the affected limb. This is quite normal and may continue for several weeks. You may find it helpful to keep the limb elevated
- Your skin may be dry and itchy. Do not scratch; try using baby oil or moisturiser
- Your skin will be sensitive. Be careful if going in the sun and apply a sun block
- Physical activities eg manual labour, sport etc should be reduced or avoided during the first few weeks after cast removal.

## **On the day of your follow-up appointment**

You may require several treatments during your visit to clinic, such as x-rays and dressings. This, along with varying numbers of patients, means that sometimes you may have to wait longer than we would like so we apologise for any inconvenience in advance.

## **DVT signs and symptoms**

Due to immobilisation and reduced mobility, there is a higher risk of developing a DVT (Deep Vein Thrombosis). It is important to stay as active as possible, drink plenty of fluids and be aware of the signs and symptoms.

Please contact the plaster room or the Emergency Department immediately if you experience any of the following:

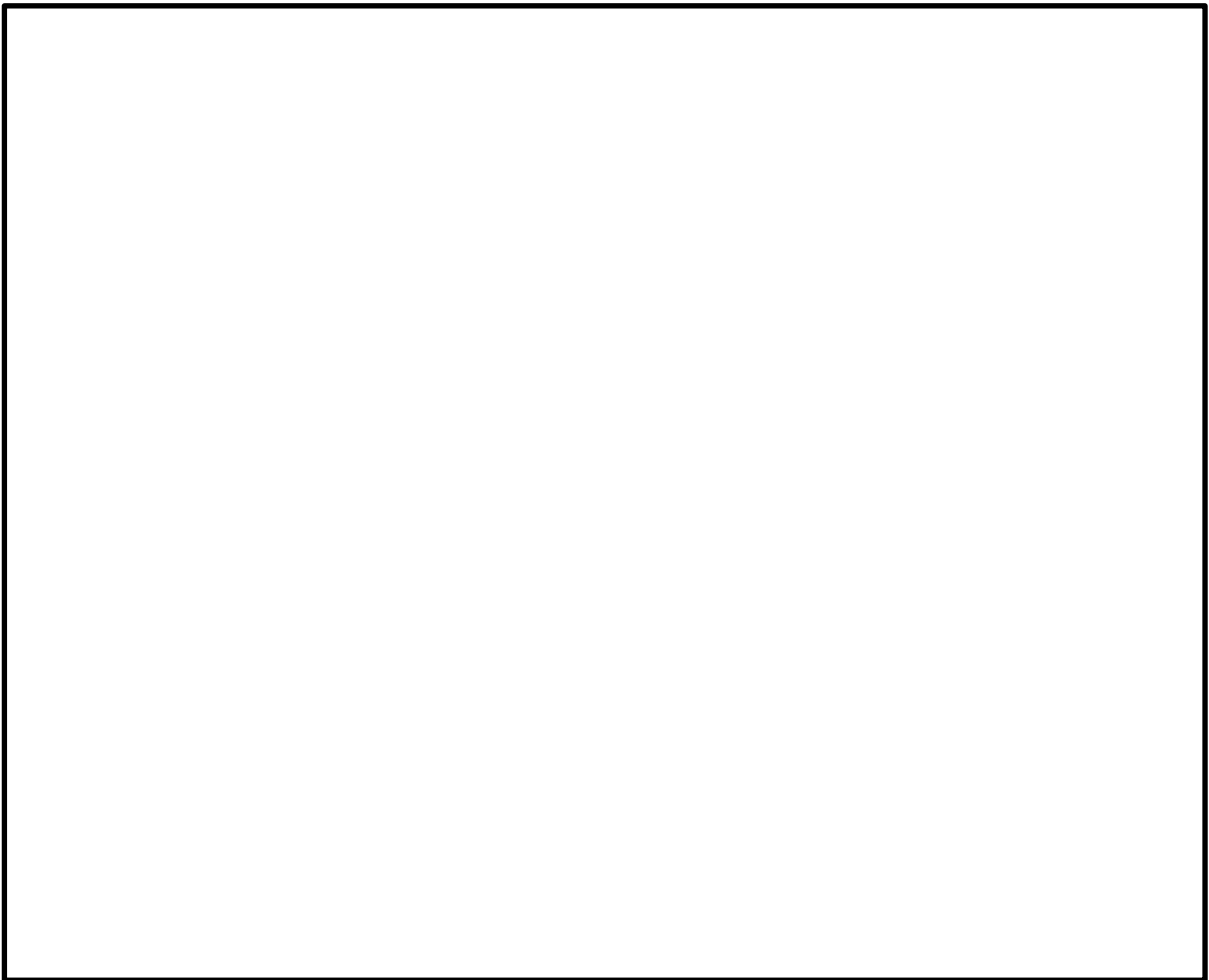
- Pain in the calf, thigh or chest
- Sudden onset of shortness of breath with no physical exertion
- Swelling of the leg
- Increased/decreased warmth of the leg
- Redness in the leg
- Bluish skin discoloration.

## **Pressure ulcer**

A pressure ulcer (sore) is a type of injury that breaks down the skin and underlying tissue. A small number of high risk patients are at increased risk of developing a pressure ulcer, especially in long leg casts, which severely reduces mobility. To try and avoid this:

- Make sure to regularly reposition your leg throughout the day so that you are not constantly resting on the same area for long periods of time (every 2 hours)
- If you notice any discomfort and or pain under the cast, most noticeably at the cast edges or heel, please contact the plaster room for urgent review
- Ensure the top and bottom of cast is not rubbing and leaving red marks
- Do not rest the leg on the heel for long periods of time and place a pillow under the leg.

## **Further advice and instruction**



## Contact us

If you experience any of the following:

- Your toes become painful, swollen or blue
- You are unable to move the limb or joints
- You feel “pins and needles” or numbness in the TCC
- Any “burning”, “blister-like” pain or severe irritation under the TCC
- Discharge, blood staining or wetness under the TCC
- If you drop any object into the TCC
- The TCC appears too tight or loose fitting
- The TCC cracks or becomes soft
- Excessive itching
- The TCC has got wet
- You feel unwell, tired, hot or shivery with flu-like symptoms as this may indicate that you are developing an infection
- Bad odour from the TCC.

Please contact the plaster room where a booked appointment can be made for you to return for assessment. Arriving without a prior appointment may result in longer waits or having to return at a convenient time. Outside of plaster room hours, please contact your local Minor Injuries Unit or the Emergency Department if urgent.

## Contact Numbers:

We hope that you have found this information useful. If you have any questions or are worried about anything, please speak to the following Dorset County Hospital Staff:

Orthopaedic Practitioners:	James Vincent, Sarah Nelmes, Zara Penwell
Plaster Room:	01305 255498
Diabetes Centre:	01305 255130
Orthotics:	01305 254408

## About this leaflet:

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If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email [pals@dchft.nhs.uk](mailto:pals@dchft.nhs.uk)



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