

TCC-EZ[®] – Total Contact Casting System Overcoming the Barriers to Utilizing a Proven Gold Standard Treatment[†]

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PURPOSE AND OBJECTIVE

Total Contact Casting (TCC) is recognized by most experts as the **Gold Standard** in off-loading diabetic foot ulcers, but many barriers have limited its use in clinical practice. TCC-EZ[®] works to overcome these barriers by using a roll on cast sock and supportive boot instead of multiple rolls of plaster or fiberglass and a walking plate. The traditional barriers to TCC include time, complexity, and fear of complications.¹ An easier TCC method should increase use of this important modality overall.

METHODS¹

TCC-EZ[®] was applied on 100 patients by six physicians. Time applying the cast was assessed as well as application complexity. Observations have been made on the growth and acceptance of TCC-EZ[®] and its use in various clinical practices. A 2013 case study, shown below, demonstrates how effective the cast is.

STUDY RESULTS 100 PATIENTS¹

1. Time of fiberglass application:

It took an average of 75 ½ seconds to roll the TCC-EZ[®] cast sock compared to 452 seconds (over 7 ½ minutes) for clinician application of the hardening cast layers of a traditional TCC. TCC-EZ[®] average total time of set up, cast application, and drying time was 21 minutes for the 100 cast applications.

2. Complexity of Application:

The “roll on nature” of the cast requires almost no learning curve for application. Applying the cast sock in 75 seconds illustrates the ease of the procedure. The entire application, from set up to rolling the cast, can be learned by any clinician, not just physicians.

3. Complications associated with TCCs:

Studies have shown with consistency of application, proper patient positioning, protocol adherence, and appropriate patient selection, TCC complications are low and well worth the benefit.² In this study, no patient had serious complications caused by application errors.

Market Observations:

TCC-EZ[®] has overcome many barriers, as demonstrated in this study. It has grown to be the most utilized casting method in the United States. In 2013 it is expected to be used on over 10,000 patients (almost 100,000 casts). Even with these advancements and proven benefits, TCC is still only used on a small portion of the patient population.

CONCLUSION

The TCC-EZ[®] significantly reduces barriers for use with the fiberglass cast sock application taking 75 seconds, almost no learning curve and minimal complications. The TCC-EZ[®] affords the clinician in a busy clinic the ability to apply TCCs in an efficacious manner while overcoming traditional barriers preventing its use. This has helped increase the usage of the **Gold Standard** in off-loading and lead TCC-EZ[®] to be the most utilized off-loading casting system.



[†]Boot may be purchased separately

PATIENT CASE STUDY

A 68 year old female with diabetes presented with a stable and consolidated Charcot deformity and profound neuropathy that has been present for several years. The patient had been seen at another clinic for over 6-8 months for two lesions on her left foot. HgA1c has been less than 8.0. This case demonstrates how effective TCC-EZ[®] can be in helping to heal Charcot patients, and why TCC has been recommended in published guidelines for management of both Charcot foot³ and neuropathic foot ulcers.²



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First visit: Wounds were debrided. 1st metatarsal head lesion measured 4 cm x 2.5 cm x 0.1 – 0.2 cm and navicular lesion measured 0.5 cm x 0.7 cm x 0.1 – 0.2 cm. She was placed into a TCC-EZ[®] and was seen 2 days later for the first cast change. Already there had been significant reduction in the size of the wound.



4/4/13

A week later, the wounds have reduced in size to 0.6 cm x 0.5 cm x 0.1 cm and 0.4 cm x 0.3 cm x 0.1 cm.



4/11/13

The navicular wound had closed.



4/25/13

Both lesions were completely closed.

The patient was kept in the cast for an additional two weeks beyond healing to insure adequate integrity of the tissues. Surgical off-loading was then planned to help prevent these lesions in the future.

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