

Short Article

Triangle of Therapeutic Footwear

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Abstract: Diabetic/Therapeutic foot wear is an important treatment strategy that has both preventive and therapeutic role in patients with diabetes. It is often difficult to understand and also to keep updated with types of foot wear available in market and further the dilemma “*which one to use in which patient*”, especially by non-foot specialist and other healthcare professionals is common. Further, very little is taught about footwear in teaching curriculum of undergraduates and postgraduates of different streams in medical field in spite of knowing that diabetes is a global problem with increasing incidence every year. This article aims to simplify the understanding of diabetic footwear using the new teaching model, the Amit Jain's Triangle of Diabetic footwear.

Keywords: Diabetes, Foot, Footwear, Amit Jain's, Classification, Triangle.

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INTRODUCTION

It is well known that diabetic foot complications can be prevented by using therapeutic footwear (Woody, J. 2020). There are studies which show that the therapeutic footwear reduces the risk of re-ulcerations also (Williams, A. 2015)

The therapeutic footwear is however not used in clinical practice up to the expectations of a diabetic foot expert as of now. In a recent study by Jain et al from India, it was noted that only 5.3% of diabetic foot patients used therapeutic footwear (Jain, A. K. C., & Rajagopalan, S. 2018). Vast majority of patients did not receive any advice on footwear from the health care professionals (Jain, A. K. C., & Rajagopalan, S. 2018).

There are many reasons behind not using therapeutic footwear. The author over a decade of diabetic foot practice observed various factors. Among

patients, the common reasons are financial constraints, religious beliefs, underestimation of its important role, careless attitude, finding it heavy, no design options, etc. Many of these patient factors are common in developing and under developing countries. Among health care professionals like doctors, the reasons could be insufficient time in clinical practice to explain on footwear, unaware of footwear options, non-availability, insufficient knowledge on appropriate therapeutic footwear, lack of staff looking after footwear, treating a doctor's clinic as commercial footwear shop, attitude of patients like bargaining etc.

The author proposes the ‘Triangle of diabetic footwear’ (Figure 1) based on the new Amit Jain's extended ‘SCC’ classification for therapeutic diabetic footwear (Jain, A. K. C. 2019). This new classification is simple, practical and easy to remember 3 tier classification wherein all diabetic footwear's can be incorporated (Jain, A. K. C. 2019).

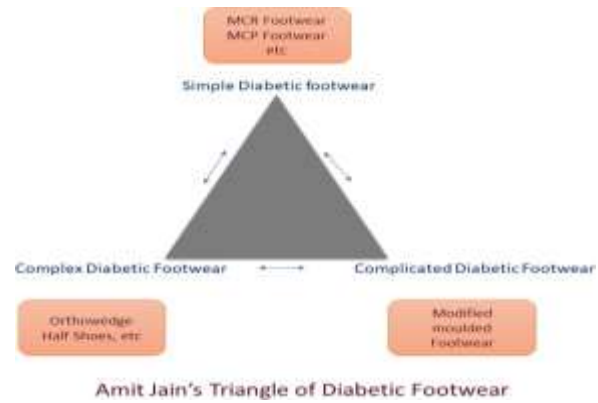


Figure 1. showing the new Amit Jain's triangle of therapeutic footwear

The triangle of diabetic footwear is a new teaching model which is obtained from this new classification. The 3 areas of the triangle represent the options of footwear available to diabetic patients and they include simple diabetic footwear, complex footwear and complicated footwear's (Jain, A. K. C. 2019).

Microcellular rubber (MCR) and Microcellular polymers (MCP) sandals (Figure 2) that are made of polyurethane, EVA, etc are simple diabetic footwear which are commonly used in Asian countries like India. Wedged footwear's (Figure 3), half footwear's, rigid rockers, etc are complex footwear whereas the modified molded (customized) are complicated footwear's (Jain, A. K. C. 2019).



Figure 2. showing the MCP sandals. This is a simple diabetic footwear (Type 1)



Figure 3. showing the Anterior Ortho-wedge footwear. This is a complex diabetic footwear (Type 2)

This triangle of diabetic footwear can be used as an excellent model both for teaching as well as in

clinical practice, as it provides a guide to decide on footwear options available. This triangle is bidirectional

which means one can shift from any type of footwear to another type based on patient's requirement or clinician's judgement.

CONCLUSION

Therapeutic footwear is known to protect the patient's feet and they serve important strategy in management of diabetic foot. The main objective of this new triangle of diabetic footwear is to provide an easy to use option in footwear for each diabetic patient and it is also an excellent teaching model.

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