
POSTER ABSTRACT

Preventing wound reoccurrence using compression garments in vulnerable populations: What does the literature say about modified compression and its application?

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Aim: The purpose of this literature review is to identify and explore the definition of modified compression and its application using compression garments to prevent reoccurrence of chronic wounds in the population of people with the comorbidities of peripheral arterial disease and diabetes.

Background: Compression is considered the best practice treatment in wound care and prevention, but does this apply to vulnerable people who have comorbidities?

Evidence demonstrates wound healing is compromised in the presence of comorbidities. Clinical experience and literature show that compression is not utilised with patients experiencing comorbidities. Therefore, they do not receive best practice. The provision of best practice treatment, including the use of modified compression, is vital for wound prevention. Research highlights the fact that this population is already at risk of delayed wound healing and higher risk of re-occurrence of wounds 1.

Although consensus documents exist, the definition of modified compression is neither clear nor consistent and methods of application are not prescribed within these documents. Clearer guidelines regarding the use of compression with these vulnerable people are needed.

The lack of clarity with the definitions and application, further add to the concerns by health practitioners regarding injuring this population and are cited as the most common factors inhibiting the application of compression for this population 1, 2.

Method: An electronic database search was conducted using medical subject headings followed by a keyword search strategy. The following databases were searched: MEDLINE, CINAHL, Scopus and Wiley. Key search terms included, reduced compression/modified compression; wound/ulcer; leg/lower limb. Exclusion criteria included, surgery, pneumatic, dressing, vacuum, thrombosis/DVT.

Results/Discussion: Initial analysis shows inconsistencies in the definition and application techniques of modified compression in the literature. Working definitions from the research range from less than 40mmHg to greater than 10 mmHg. It is noted, that the literature is consistent with the concept of less than standard compression. Concerning application
techniques, the literature is very limited in the area of modified compression application using garments, with only two articles clearly related to this topic. The concept of using compression garments to prevent reoccurrence is consistent and well documented in the literature, however, specific application methods of the modified compression is inconsistent. Using a wider search term of compression provided a range of application techniques, from bandages short stretch/long stretch to inelastic Velcro garments.

**Conclusion:** More research is needed to assist with clearer definitions and application methods regarding the use of compression with vulnerable people. Clarifying the definition and application of modified compression will contribute to standardising the language used in guidelines, protocols and procedures, thus enabling clinicians to implement best practice treatment for all people.

**References:**


**Keywords:** compression; wound; diabetes; peripheral arterial disease