

## Preventing cellulitis. What is the evidence for (non-pharmacological) secondary prevention?

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**Introduction:** Cellulitis is the leading cause of 'potentially preventable hospital admissions' in NSW Australia with admission rates growing year on year. In their Cochrane review 'Interventions for the prevention of recurrent erysipelas and cellulitis' Dalal et al (2017) commented on the 'striking' absence of evidence supporting the management of known risk factor for recurrence, including the use of skin care, antifungal treatment and lymphoedema management in the prevention of recurrent cellulitis. It remains unclear what evidence supports the prevention of cellulitis recurrence through management of risk factors.

**Aims:** To investigate the evidence for managing local risk factors in preventing recurrent cellulitis.

**Method:** A systematic review of the scientific literature was undertaken 06/02/2023 from Medline, PubMed, Cinahl, Web of Science, and Scopus and a hand search of Google scholar to examine specific gaps in the results. The search for lymphoedema of the limbs was matched with the risk factors identified in the literature, including Mesh terms. Studies were included if they addressed management of cellulitis risk factors to prevent further recurrence of cellulitis, presenting in either the upper or lower limb.

**Results:** Two authors screened each of 970 titles/abstracts found through the search. Sixteen full texts were reviewed, with eight included. All included papers focused on the management of oedema, with none looking to address podiatry related issues, such as the presence of tinea or skin integrity. There was consistent evidence for conservative treatment of lymphoedema +/- surgery (lympho-venous anastomosis, lymph node transfer and liposuction) as being protective against recurrence of cellulitis.

**Conclusion:** Despite extensive investigation into the risk factors for the development of cellulitis, little research has been undertaken on the impact of managing these risk factors. While we can confidently assert that the management of chronic oedema helps to prevent cellulitis recurrence, we cannot confidently assert the same regarding issues of skin integrity or fungal infections. Future work evaluating the effect of risk factor management including treatment for fungal foot infections and management of skin integrity is required.