

Appendix 1

Section title	Search strategy	Search results
Stress and wound healing	<p>For this section, we searched for literature on the prevalence of stress in the population with wounds and on the effects of stress on wound healing. Our search was limited to human studies and to chronic wounds. No study that reported on the prevalence of stress in people with chronic wounds was identified.</p> <p>We expanded our search to review references of included studies and systematic reviews in the field. A significant challenge was the range of terminology being used throughout, often times interchangeably and without reference to definitions of the terminology within the paper.</p>	<p>Seven articles focused on the effects of stress on chronic wound healing, of which one was later excluded, as it was limited to people with cancerous wounds. The remainder included observational studies (n = 3) of pain at dressing change based on questionnaires and patient interviews.</p>
Sleep and wound healing	<p>For this section, we searched for literature on the effects of sleep on wound healing. All types of research concerning sleep and wound care were included.</p>	<p>The search strategy identified the following publications: 11 experimental studies covering the circadian cycle, 8 on the consequences of sleep on cells and 5 studies (2 systematic reviews and 3 observational studies) on sleep and wound care.</p>
Smoking and wound healing	<p>For this section, we searched for literature on the prevalence of smoking in the population with wounds and on the effects of smoking on wound healing. Our search was limited to human studies and chronic wounds. We expanded our search to review references of included studies and systematic reviews in the field.</p>	<p>A total of 69 papers were identified, among which 56 were excluded, as they did not fit the search criteria. The remainder included reviews (n = 9) and observational studies (n = 4).</p>
Alcohol consumption and wound healing	<p>For this section, we searched for literature on the effects of alcohol consumption on wound healing. We included all types of research.</p>	<p>There was a significant lack of literature related specifically to the impact of alcohol on chronic wound healing</p>

Section title	Search strategy	Search results
Commonly used medication and wound healing	<p>For this section, we searched for literature on the effects of medication on wound healing. Our search was limited to human studies and chronic wounds. Our search was expanded to review references of included studies and systematic reviews in the field. Key words (Pubmed) included medications, drugs, wound healing, adverse skin reactions, humans, review.</p>	<p>The search strategy identified 13 publications. 12 did not meet our criteria and thus one literature review was used as a basis for this section.</p>
Illicit drug use and wound healing	<p>For this section, we initially searched for literature on the effect of illicit drugs on wound healing. Our search was limited to human studies and chronic wounds.</p> <p>A second search was expanded to studies and systematic reviews in the field. Key words (Pubmed) included leg ulcer etiology, leg ulcer therapy, substance abuse (intravenous), complications, wound healing.</p>	<p>There was a significant lack of literature related specifically to the impact of illicit drugs on chronic wound healing. While the first search did not generate any results, we identified one case report and four short reviews via the second search strategy.</p>
Physical activity and wound healing	<p>We searched for published peer-reviewed articles in PubMed using a combination of keywords related to physical activity (e.g. 'physical activity', 'exercise', 'weight-bearing activity'), to the population ('VLU', 'DFU', 'arterial ulcer', 'pressure ulcer', 'chronic wounds') and to outcomes ('ulcer healing', 'wound healing', 'wound area reduction'). Keywords within each domain were combined with 'or', while the three domains were combined using 'and'. We only included studies on people with a chronic wound as participants. No limitations were used related to study design, language or year of publication. If an SR including multiple RCTs was found, we used the findings as reported and summarised within the SR. The formal risk of bias assessment was not undertaken. All searches and data extraction were done by one author, while the other authors reviewed and checked the results for accuracy.</p> <p>We used the WHO definition for physical activity: 'Any bodily movement produced by skeletal muscles that requires energy expenditure'.¹ We also used all additional definitions concerning physical activity as given by the WHO—for example, regarding inten-</p>	<p>For each type of chronic wound, a separate literature search was performed. This resulted in a total 682 publications that were screened, of which 28 were relevant and included. Detailed numbers, including publication type (systematic review, RCT or observational study) can be found in each section.</p>

Section title	Search strategy	Search results
	<p>sity or the domains of physical activity. We then used the WHO definition for exercise: 'A subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective'.¹ This also includes exercise training. We used the International Working Group on the Diabetic Foot (IWGDF) definition of a weight-bearing activity: '[An activity] during which the foot is loaded by supporting the body weight of the person, and expressed as quantitatively as possible. Includes walking and standing'.⁴⁶</p>	
Nutrition and wound healing	<p>For this part, we primarily searched for peer-reviewed publications on nutrition/nutritional support/nutrients and chronic wounds in humans. PubMed was used for original articles and meta-analyses. The Cochrane Database was searched for meta-analyses. As the number of relevant studies was low, we expanded our search also to articles dealing with acute and experimental wounds.</p>	<p>Although more than 300 papers on nutrition and chronic wound healing have been published, only 3 RCTs (focused on special supplements) were found on PubMed. Only two were randomised; however, the data were inconsistent due to the low number of patients. This is probably due to ethical problems with prospective studies on patients who are malnourished or at risk of malnutrition. Therefore, this chapter focuses on pathophysiological aspects based on articles that focused not only on chronic wounds but also on acute wounds, pressure ulcers and experimental wounds.</p>