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The influence exerted by the temperature of the irrigation fluid on wound healing. [German]

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In a pilot study with 20 patients with leg ulcers the influence exerted by the temperature of the irrigation fluid on quantitative perfusion of the wound margin and on hemoglobin oxygenation was investigated after it had been demonstrated by means of thermographic photo documentation that the wound temperature could be greatly affected by the different temperature of the irrigation fluid. Wound perfusion and hemoglobin oxygenation were recorded and evaluated over a period of 24 hours for 20 bedridden patients. It was demonstrated that after irrigating the wound with an irrigatin fluid of 21 °C, quantitative wound margin perfusion and hemoglobin oxygenation yielded markedly poorer values compared with those obtained when irrigating the wound with a 37 ° C irrigation fluid. This investigation shows that by using the warm irrigation fluid the condition of the wound was influenced to a lesser extent.