

# American Burn Association

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Initial Management of Tar and Asphalt Burns: A Report on the Use of a Citrus-Petroleum Distillate to Facilitate Debridement

Burns due to hot tar or asphalt present an initial management problem because the tar is difficult to remove without further inflicting injury to the underlying burned tissue. The more powerful solvents, such as lower ketones, mixed ketones, aldehydes, chlorinated hydrocarbons, lower acids, alcohols, and benzene-type hydrocarbons are highly injurious to human skin and to sensitive organs of the body such as eyes, respiratory organs and mucosa. Mineral oil or antibiotic ointments have been the mainstay of tar removal in emergency facilities however these are slow solvents requiring continual rubbing which is very painful. During the two years, we have used a citrus-petroleum distillate (Orange-Sol, Inc. Chandler, Arizona) to remove tar from the skin following tar burns.

The solvent is non-toxic and non-irritating to the underlying burn, mucous membranes, or the cornea. The tar can be removed much more rapidly and with less pain than using conventional solvents.

The solvent has been used on 21 patients with tar burns with a mean burn size of 8.5% TBSA (range 1.5-24.5%) and a mean deep partial-thickness or full-thickness burn of 4.3% TBSA (range 0-17.0%). Skin grafting was required for 85.6% of the patients. With the use of early excision and grafting, the mean post-burn day for grafting was 3.5 days and the mean hospital stay was 9.9 days. The mean number of days lost from work in patients who required skin grafting was 36 days (range 4-90 days). Two patients had associated fractures. Industrial accidents accounted for 95.2% of the injuries.

Current management of tar burns includes: Cooling at the scene of accident; removal of the tar with a non-irritating solvent; early excision and skin-grafting of deep partial thickness and full-thickness injury; and a back to work early philosophy.

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