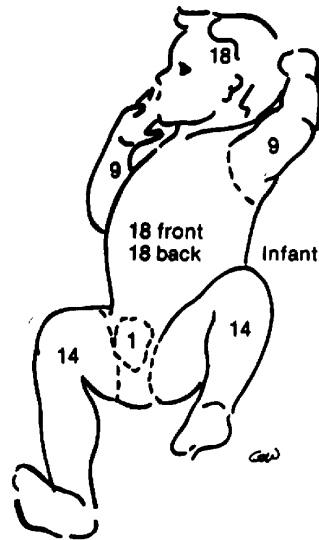
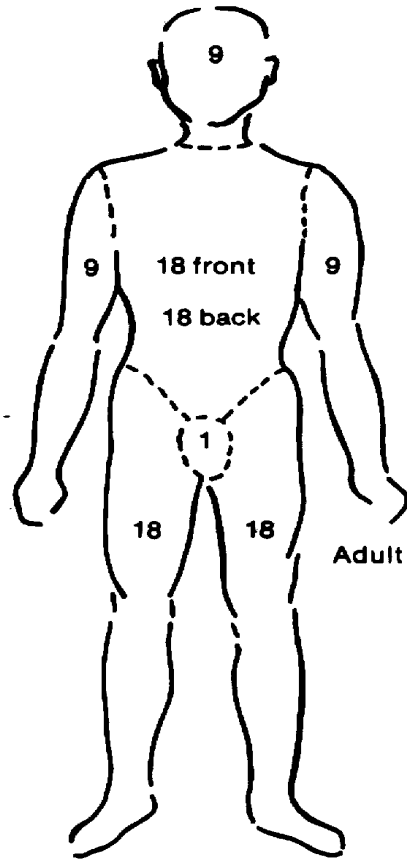
	Department Name Address	ALS	Paramedic
		Revision #	
		Implementation Date	
Protocol	2.1.34 Burns	Last Reviewed/Update Date	
Author / Owner		Medical Director	

Burns can be caused by thermal, chemical, and electrical sources. Burn patients are volume depleted, however, they do not bleed. Therefore, look for other sources of bleeding. Many burn injuries are associated with respiratory burns that may not be obvious. The signs and symptoms of respiratory burns include: burns about the nose and face, charring in the mouth, blackened (sooty) sputum, singed nasal or facial hair, abnormal breath sounds (stridor, rhonchi, and wheezing), and respiratory distress. In cases of respiratory burns, attention should be given to the patency of the airway. Acute swelling can cause an airway obstruction. Consider early intubation to avoid a complete airway obstruction.

1. Baseline care standards.
2. Extinguish any flames on patient and remove smoldering clothing and any constricting clothing or jewelry.
3. Remove patient from harmful environment and limit injury:
 - Chemical: Flush with water or Normal Saline. Brush off dry chemicals.
 - Tar: Cool with water or Normal Saline (do not attempt to remove tar).
 - Electrical: Remove from contact with current source if equipped to do so. (Note any secondary fractures and exit wounds caused by current).
4. Administer oxygen at 15L per minute via non-rebreather mask. If respiratory distress or airway burns exist, consider intubation.
5. Do not apply any type of ointment, lotion, or antiseptic to burns.
6. If there are 2nd or 3rd degree burns of less than 20% body surface area:
 - Apply wet sterile dressings to burned area.
 - Be careful not to cause hypothermia.
 - IV Lactated Ringer's TKO.
7. If significant 2nd or 3rd degree burns of equal to or greater than 20% body surface area:

- Cover burns with dry sterile dressings.
 - Establish two large bore IVs of Lactated Ringer's.
 - For ongoing care, administer IV fluids using the Parkland Formula (4ml x Pt's weight (kg) x % BSA):
 - i. Give $\frac{1}{2}$ in the first 8 hours post-burn
 - ii. Give $\frac{1}{4}$ in the second 8 hours
 - iii. Give $\frac{1}{4}$ in the third 8 hours
 - Consider *Morphine 2-5 mg IV*. May repeat in five minutes to a maximum of 15 mg.
8. If the patient has an altered level of consciousness and / or signs of head injury (consider carbon monoxide poisoning if closed space burn):
- Immobilize cervical spine when appropriate.
 - IV Lactated Ringer's TKO.
9. Transport patient on sterile dry burn sheets.
10. Consider Foley catheter insertion.
11. Monitor urine output. If output drops to less than 30-60 ml/hour (adults) OR 1.0 ml/kg/hour (pediatric), increase the IV fluids to maintain urine output at these levels.
12. Contact medical control for any questions or problems.

Rule of Nines



Medical Director's Signature

Date

Disclaimer:

The protocols have been developed by the North Dakota Department of Health are meant to be used as general guidance for developing protocols for individual emergency medical services agencies. These sample protocols are not meant to be medical or legal advice; nor do they establish standards of care. Each emergency medical services agency must tailor protocols based on their specific needs or capabilities. Local medical directors must be consulted with and approve any protocol(s) prior to becoming operational in an emergency medical services agency. directors must be consulted with and approve any protocol(s) prior to becoming operational in an emergency medical services agency. The North Dakota Department of Health make no representation on the accuracy of information contained herein and accepts no liability for any loss or damage arising from any content error or omission.