



# EMS System for Metropolitan Oklahoma City and Tulsa 2024 Medical Control Board Treatment Protocols



Approved 11/08/23, Effective 1/15/24, replaces all prior versions

**TREATMENT PRIORITIES**

1. Thermal Burn
  - Stop burning process
  - Flood with water only if flames not extinguished; smoldering present; significant heat being dissipated
  - Determine possibility of smoke/toxic inhalation
2. Chemical Burn
  - Brush off dry chemicals
  - Flush with water for minimum of 15 minutes
3. Electrical Burn
  - Evaluate airway and cardiac status
4. Do not delay transport for on scene IV fluids or medication

## 10L - BURNS ADULT & PEDIATRIC

EMERGENCY MEDICAL DISPATCHER
EMERGENCY MEDICAL RESPONDER
EMT
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

**EMD**

IF PT CLOTHES ARE BURNING OR SMOLDERING, DOUSE THEM WITH WATER IMMEDIATELY.  
IF WATER IS NOT AVAILABLE, THEN ROLL PT ON THE GROUND OR SMOTHER THE FIRE  
DO NOT TOUCH ANYTHING OR PICK UP DEBRIS

<b>EMR</b>	<b>EMT</b>
<p>TRAUMA AND HYPOVOLEMIC SHOCK SUPPORTIVE CARE STOP THE BURNING PROCESS SPINAL "STABILIZATION" - DO NOT APPLY SPINAL "TRACTION" DURING IMMOBILIZATION (IF EXPLOSIVE MOI &amp; if applicable) STABILIZE IMPALED OBJECTS (IF EXPLOSIVE MOI) O<sub>2</sub> VIA NC, NRB, OR BVM AS APPROPRIATE FOR RESPIRATORY SYMPTOMS COVER BURNED AREA WITH BURN DRESSING (if equipped) THEN APPLY DRY SHEET APPLY CARDIAC MONITOR (if equipped)</p> <p><b>EMT OR HIGHER LICENSE:</b> FOR RESPIRATORY SYMPTOMS, MEASURE END – TIDAL CO<sub>2</sub> &amp; MONITOR WAVEFORM CAPNOGRAPHY (if equipped, ** Mandatory use if pt intubated) PLACE SUPRAGLOTTIC AIRWAY IF INDICATED &amp; ONLY IF BVM VENTILATIONS INEFFECTIVE.</p>	

<b>EMT-I85</b>	<b>AEMT</b>
<p><b>ADULT:</b> INTUBATE IF INDICATED</p> <p>IV/ IO ACCESS IF INDICATED</p> <p><b>ADULT:</b> IV NS; FOR MAJOR THERMAL BURNS, 500 mL BOLUS IF NO SIGNS OF PULMONARY EDEMA <b>PEDIATRIC:</b> IV NS 20 mL/kg BOLUS IF NO SIGNS OF PULMONARY EDEMA SEE WEIGHT BASED FLUID RESUSCITATION TABLE TO AVOID EXCESSIVE FLUID</p>	

<b>PARAMEDIC</b>
<p><b>ADULT:</b> MEDICATION ASSISTED INTUBATION IF INDICATED</p> <p>ANALGESIA (IF REQUIRED) FOR OPIATE USE, ADULT MUST HAVE SYS BP ≥ 100 mmHg; PEDIATRIC MUST HAVE SYS BP ≥ (70 + 2x age in years) mmHg</p> <p><b>ADULT:</b> FENTANYL 1 mcg/kg SLOW IVP/IM/IN, MAXIMUM DOSE 100 mcg. MAY REPEAT EVERY 10 MINUTES TO MAXIMUM CUMULATIVE DOSE OF 3 mcg/kg or 250 mcg WHICHEVER IS LESSER. <b>OR</b> <b>ADULT:</b> MORPHINE SULFATE 2 - 4 mg SLOW IVP, MAY REPEAT 2 - 4 mg EVERY 5 MINUTES TO A TOTAL OF 10 mg. <b>OR</b> <b>ADULT:</b> HYDROMORPHONE 0.5 - 1 mg SLOW IVP, MAY REPEAT EVERY 10 MINUTES TO MAXIMUM CUMULATIVE DOSE OF 2 mg. <b>PEDIATRIC:</b> FENTANYL 1 mcg/kg SLOW IVP/IM/IN, MAXIMUM DOSE 50 mcg</p> <p>OLMCP CONSULT IF FURTHER ANALGESIA REQUIRED</p> <p>CONTINUOUS ASSESSMENT &amp; TREATMENT PER APPLICABLE PROTOCOL(S)</p>



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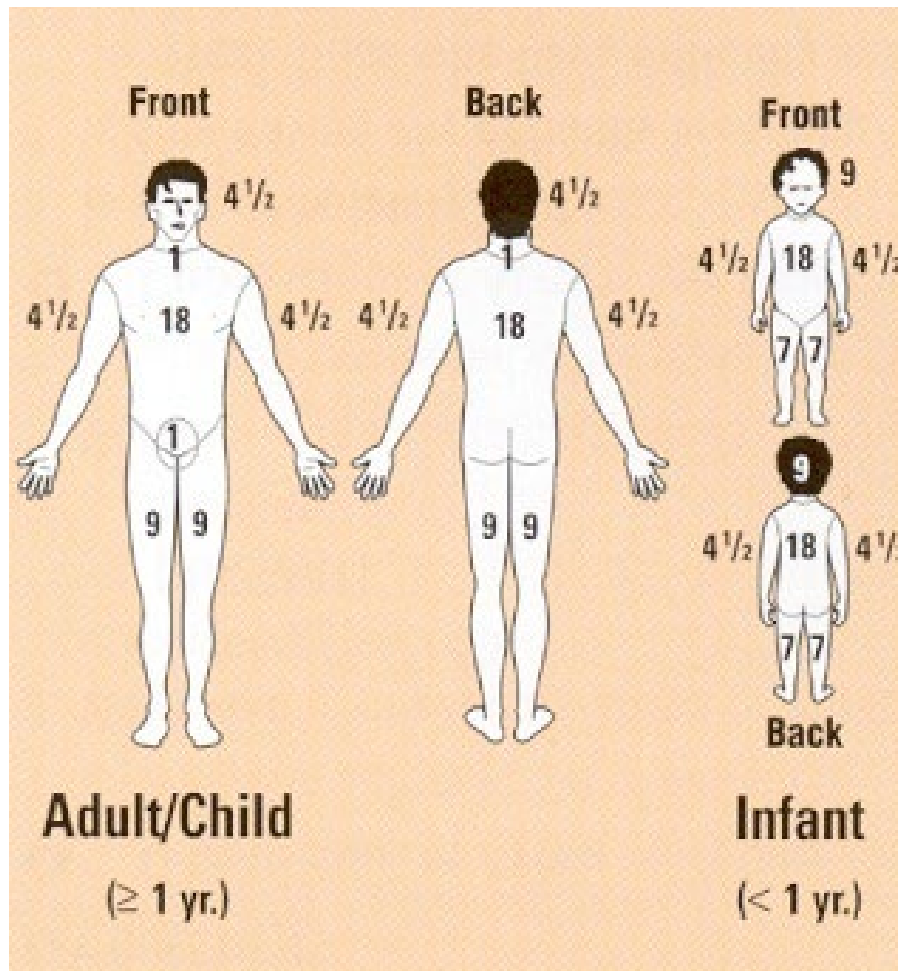
 EMS SECTION

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### PROTOCOL 10L: Burns - Adult & Pediatric, cont,

#### % Body Surface Area (BSA) Estimation Chart

Count only Second and Third Degree Burns when calculating estimated %BSA



An alternate method of calculating %BSA involvement is to use the size of the patient's entire hand equal to 1% of their BSA. This is a useful method when calculating smaller burn areas.



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**EMS SECTION**

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Wt (Kg)	Burn Surface Area %												
	20	25	30	35	40	45	50	55	60	65	70	75	80
2	10	15	15	20	20	25	25	30	30	35	35	40	40
4	20	25	30	35	40	45	50	55	60	65	70	75	80
6	30	40	45	50	60	70	75	80	90	100	105	115	120
8	40	50	60	60	80	90	100	110	120	130	140	150	160
10	50	65	75	75	100	115	125	135	150	165	175	190	200
12	60	75	90	105	120	135	150	165	180	195	210	225	240
15	75	100	115	130	150	170	190	210	225	250	280	285	300
17	85	110	130	150	170	190	215	235	255	275	300	320	340
20	100	125	150	175	200	225	250	275	300	325	350	375	400
22	110	140	165	200	220	250	275	300	330	360	385	415	440
25	125	160	190	220	250	280	315	350	375	400	440	470	500
27	135	170	200	240	270	300	340	370	405	440	470	500	540
30	150	190	225	260	300	340	375	410	450	490	525	560	600
35	175	220	260	300	350	400	440	480	525	570	610	660	700
40	200	250	300	350	400	450	500	550	600	650	700	750	800
50	250	315	375	440	500	560	625	690	750	810	875	940	1000
60	300	375	450	525	600	675	750	825	900	975	1050	1125	1200
70	350	450	525	620	700	800	875	1000	1050	1150	1225	1325	1400
75	375	500	550	650	750	850	950	1050	1150	1200	1300	1400	1500
100	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875	2000

**Fluid resuscitation for 2nd and 3rd degree burns totalling greater than 20% BSA**

Milliliters of fluid to be given during first hour based on Parkland Formula

$$4\text{mL} \times \text{kg} \times \text{BSA}\% = \text{Total Fluid over 24 Hrs}$$

Half of total should be given over the first 8 Hrs