POLICY: 554.84
TITLE: Crush Injury

EFFECTIVE: 02/01/2026
REVIEW: 02/2028
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

CRUSH INJURY

I. AUTHORITY
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II. PURPOSE
To serve as a patient treatment standard for EMR's, EMT's and Paramedics within their scope of practice.

III. PROTOCOL
Provider Key: F= First Responder/EMR E= EMT O=EMT Local Optional SOP
P= Paramedic D= Base Hospital Physician Order Required

	F	E	O	P	D
ASSESSMENT	X	X	X	X	
CONTROL OBVIOUS BLEEDING	X	X	X	X	
BLS AIRWAY: okay if airway patent. Support ventilations with appropriate airway adjuncts.	X	X	X	X	
ADVANCED BLS AIRWAY: if patient's GCS is less than 8 and not rapidly improving, consider SGA.			X	X	
ADVANCED ALS AIRWAY: if patient's GCS ≤ 8 and not rapidly improving, consider ETI.				X	
PULSE OXIMETRY: apply and monitor.		X	X	X	
CAPNOGRAPHY: apply and monitor.				X	
OXYGEN: if pulse oximetry <94% or signs of hypoperfusion or respiratory distress.	X	X	X	X	
ECG MONITOR: as soon as access allows. Lead placement may be delegated. Treat as indicated.				X	
PRIOR TO RELEASE OF COMPRESSION					
VASCULAR ACCESS: IV/IO, rate as indicated.				X	
FLUID BOLUS: administer 250 mL NS boluses as indicated to SBP ≥ 90. Reassess after each bolus.				X	
***TRANEXAMIC ACIDS:** 2 gm rapid IV/IO push.				X	
APPROVED BETA-2 AGONIST: choose **ONE** of the following beta-2 agonists. If patient intubated, administer inhaled medication through aerosol holding				X	

chamber. Repeat as indicated. • **ALBUTEROL:** 2-10 inhalations via metered dose inhaler or 2.5 mg via nebulizer. If patient intubated, administer dose through aerosol holding chamber. • **LEVALBUTEROL**: 1.25 mg via nebulizer.					
BASE CONTACT: consult if able prior to release of compression for orders					X
DURING OR AFTER RELASE OF COMPRESSION	F	E	O	P	D
REASSESS: control obvious bleeding	X	X	X	X	
HYPERKALEMIA: DO NOT GIVE MEDICATIONS IN SAME IV LINE Suspect if compression ≥ 4 hours and peaked "T" wave, absent "P" wave, or widened "QRS". • **CALCIUM CHLORIDE:** 1 gm IV/IO over 5 minutes, followed by 20mL NS flush • **SODIUM BICARBONATE:** mix 100mEq in 1000 mL NS wide open.				X	
SPINAL MOTION RESTRICTION: if indicated.	X	X	X	X	
POSITION: Trendelenburg if tolerated. If long spine board is indicated, tilt spine board 30 degrees. If patient is > 6 months pregnant, place patient in left lateral decubitus position.	X	X	X	X	
TRANSPORT: per trauma triage protocol.	X	X	X	X	
DRESS & SPLINT: as needed	X	X	X	X	
PAIN MANAGEMENT: Refer to MCEMSA PAIN MANAGEMENT #554.44				X	

*TXA should be adminsiterd to trauma patients who meet the following criteria, unless otherwise indicated:

1. Systolic BP of < 90 mmHg.
2. Uncontrolled Bleeding.
3. Time of injury < 3 hours.