

Santa Barbara County EMS County Wide Protocols

Policy 533-25

Gounty Wide Frederic	
POTENTIAL CRUSH INJURY / CRUSH SYNDROME	
ADULT	PEDIATRIC – (14 years and under)
BLS Procedures	
 Administer oxygen as indicated Refer to Policy 533-02: Airway Management Perform spinal precautions as indicated Maintain body heat Obtain Crush/Compression Timeframe (if available) 	 Administer oxygen as indicated Refer to Policy 533-02: Airway Management Perform spinal precautions as indicated Maintain body heat Obtain Crush/Compression Timeframe (if available)
•	ded Scope
Same as BLS	Same as BLS
ALS Prior to Base Hospital Contact	
Potential Crush Syndrome* • Vascular access • Release compression • Monitor for cardiac dysrhythmias	Potential Crush Syndrome* • Vascular access • Release compression • Monitor for cardiac dysrhythmias
Crush Syndrome* • Establish 2 nd vascular access Normal Saline • IV/IO bolus – 1L • Caution with cardiac and/or renal history Sodium Bicarbonate • IV/IO mix – 1mEq/kg • Added to 1st Liter of Normal Saline Albuterol • Nebulizer – 5mg (6mL) • Repeat as needed	Crush Syndrome* • Establish 2 nd vascular access Normal Saline • IV/IO bolus – 20mL/kg • Caution with cardiac and/or renal history Sodium Bicarbonate • IV/IO mix – 1mEq/kg • Added to 1st Liter of Normal Saline Albuterol • Age < 2 years- 2.5mg (3mL) Nebulizer • Age ≥ 2 years- 5mg (6mL) Nebulizer • Repeat as needed
Additional Treatments Pain control Refer to Policy 533-03: Pain Control Release compression Monitor for dysrhythmias If cardiac dysrhythmias present: Calcium Chloride VI/IO bolus – 1g over 1 min Repeat x1 in 10 minutes For continued shock: Repeat Normal Saline VI/IO bolus – 1L Refer to Policy 533-20: Shock – Hypotension Hypotension Refractory to Normal Saline and Ongoing Extended Entrapment Push-Dose Epinephrine Refer to Policy 533-10: Push Dose Epinephrine	Additional Treatments Pain control Refer to Policy 533-03: Pain Control Release compression Monitor for dysrhythmias If cardiac dysrhythmias present: Calcium Chloride VI/IO bolus – 20mg/kg Repeat x1 in 10 minutes For continued shock: Repeat Normal Saline VI/IO bolus – 20mL/kg Refer to Policy 533-20: Shock – Hypotension Titrate to weight-appropriate SBP Refer to Appendix A Hypotension Refractory to Normal Saline and Ongoing Extended Entrapment Push-Dose Epinephrine Refer to Policy 533-10: Push Dose Epinephrine Refer to Appendix A
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•	nysician Orders Only
Consult with ED Physician for further treatment measures	Consult with ED Physician for further treatment measures



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Additional Information

Potential Crush Syndrome*

 Continuous crush injury to torso or extremity (above the wrist or ankle) for ≤ 2 hrs.

Crush Syndrome*

Effective Date: April 1, 2024

 Continuous crush injury to torso or extremity (above the wrist or ankle) for > 2 hrs.

Miscellaneous

- Dysrhythmias are usually secondary to hyperkalemia.
 ECG monitor may show: peaked T-waves, absent P-waves, widened QRS complexes, bradycardia.
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting/utilizing a secondary access site for administration of CaCl₂.
 - If using the same access, flush with a minimum of 10mL
 Normal Saline between medications.
- If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.

Potential Crush Syndrome*

 Continuous crush injury to torso or extremity (above the wrist or ankle) for ≤ 2 hrs.

Crush Syndrome*

 Continuous crush injury to torso or extremity (above the wrist or ankle) for > 2 hrs.

Miscellaneous

- Dysrhythmias are usually secondary to hyperkalemia. ECG monitor may show: peaked T-waves, absent P-waves, widened QRS complexes, bradycardia.
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting/utilizing a secondary access site for administration of CaCl₂.
 - If using the same access, flush with a minimum of 10mL
 Normal Saline between medications.
- If cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.

Last Reviewed/Revised: December 31, 2023 Next Review Date: December 31, 2025