

PAIN & DISABILITYSM

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Electrical Injuries - MEDICATION

Hydration is the key to reducing the morbidity of electrical injury. If muscle damage is significant, the use of an osmotic diuretic is also indicated.

Drug Category: Fluids

Loss of intravascular volume through the damaged epithelium, as well as loss into extravascular spaces requires fluid resuscitation. This is best be acheived with Lactated ringers.

Drug Name	Lactated ringers - It is essentially isotonic and has volume restorative properties.
Adult Dose	Generally administer 10 ml/kg/h during initial resuscitation.
Pediatric Dose	Use the same regimen as in adults.
Contraindications	The major complication of isotonic fluid resuscitation is interstitial edema. Edema in an extremity is unsightly, but not a significant complication. Edema in the brain or lungs is potentially fatal. The major contraindication to isotonic fluid resuscitation is pulmonary edema in which the added fluid promotes more edema.
Interactions	No significant drug interactions have been reported with this product.
Pregnancy	C - Safety for use during pregnancy has not been established.
Precautions	Fluid resuscitation will be expected to exacerbate cerebral edema. Fluids should be stopped when the desired hemodynamic response is seen or pulmonary edema develops.

Drug Category: Osmotic Diuretics

If myoglobinemia and myoglobinuria are present, acute renal failure can be minimized by the addition of mannitol to the regimen of fluid resuscitation.

Drug Name	Mannitol (Osmitol) - It is an osmotic diuretic which is not significantly metabolized and which passes through the glomerulus without being reabsorbed by the kidney.
Adult Dose	50-200 g/24 h IV Adjust the dose to maintain a urinary output of 30-50 mL/h
Pediatric Dose	Under 12 y: Safety and efficacy have not been established. However, trial doses of 0.2g/Kg IV followed by careful monitoring of urinary output may be prudent, again with the goal of producing diuresis in the child with myoglobinuria
Contraindications	Well established anuria due to severe renal disease. Severe pulmonary edema. Active intracranial bleeding except during craniotomy. Severe dehydration. Progressive renal damage or dysfunction after institution of mannitol therapy, including increasing oliguria and azotemia. Progressive heart failure occurring after institution of mannitol therapy
Interactions	No significant drug interactions have been reported with the use of this product.
Pregnancy	C - Safety for use during pregnancy has not been established.
Precautions	Severe electrolyte imbalance and dehydration can ensue if a careful monitoring of electrolyte status is not performed.