

## APPENDIX A: RISKS

**Table 1. Risks for Acute Traumatic Compartment Syndrome**

<b>Decreased Compartment Volume</b>	<ul style="list-style-type: none"> <li>• Tight cast or dressing, closure of prior fasciotomy, excess traction</li> <li>• External limb compression or crush particularly in obtunded or incapacitated casualty</li> <li>• Frostbite, burns or electric injury (may include escharotomy)</li> </ul>
<b>Increased Compartment Contents</b>	<ul style="list-style-type: none"> <li>• Edema accumulation: embolism, intravascular thrombosis, replantation, venous tourniquet, injections, extravasation, infiltration, ergotamine ingestion, ischemia-reperfusion, swelling, artery injury or spasm, revascularization procedures, prolonged arterial tourniquet use, shock hypoperfusion, angiography and catheterization, limbs positioned well above heart, mal-positioned joints (ankle dorsiflexion,) or stretched muscles</li> <li>• Prolonged immobilization and limb compression particularly with obtunded or drugged casualty, some surgical positioning</li> <li>• Hemorrhage, hemophilia, coagulopathy, anticoagulation, vessel injury</li> <li>• Large volume crystalloid resuscitation</li> <li>• Fractures particularly tibia fractures in adults, supracondylar humerus fractures in children displaced, comminuted, or open fractures increase hemorrhage, swelling, and CS risk</li> <li>• Popliteal cyst, long leg brace</li> </ul>

**Table 2. Morbidity Risk and Sequelae of Compartment Syndrome and Fasciotomy**

<b>Potential Morbidity: Compartment Syndrome and Early Fasciotomy</b>	<ul style="list-style-type: none"> <li>• Skin scar, scaly skin, ulceration, tethered tendons</li> <li>• Postoperative arterial or graft thrombosis, thromboembolic disease</li> <li>• Wound infection, non-healing fasciotomy wounds</li> <li>• Limb swelling or chronic edema, shape change of limb, muscle hernia</li> <li>• Pain, paresis or paralysis, paresthesia</li> <li>• Coverage challenge: primary closure, delayed primary closure, skin graft, flap</li> <li>• Possible repair of arterial injury worsening ischemia-reperfusion injury</li> </ul>
<b>Potential Sequelae List: Compartment Syndrome with Late or Incomplete Fasciotomy</b>	<ul style="list-style-type: none"> <li>• Mortality, sepsis, multi-organ failure, acute kidney failure,</li> <li>• Myonecrosis, myoglobinemia, myoglobinuria, or rhabdomyolysis</li> <li>• Paresis or paralysis</li> <li>• Stiffness or contracture</li> <li>• Limb amputation, tissue loss, e.g., muscle debridement</li> </ul>