

THE KAOLIN ADVANTAGE

QuikClot Combat Gauze® remains the hemostatic dressing of choice according to the 2017 CoTCCC Guidelines.¹

b. For compressible (external) hemorrhage not amenable to limb tourniquet use or as an adjunct to tourniquet removal, use **Combat Gauze® as the CoTCCC hemostatic dressing of choice.**

- Alternative hemostatic adjuncts:
 - Celox Gauze or
 - ChitoGauze or
 - XStat (Best for deep, narrow-tract junctional wounds)

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Prolonged Field Care

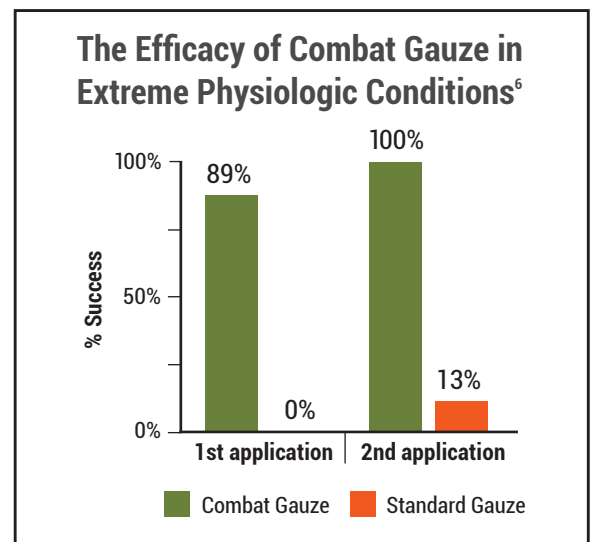
Several clinical studies have demonstrated the efficacy of QuikClot Combat Gauze (QCG) in tourniquet conversions:

- “The application of QCG permitted the removal of an effective tourniquet that was applied initially for three patients. No side-effects were reported.”²
- “There were eight cases of successful conversions of tourniquets to QCG dressings during the Operation Protective Edge. Our findings reinforce previous CoTCCC recommendations that hemostatic dressings should be the dressing of choice for tourniquet conversion attempts, an important aspect of casualty care in lengthy evacuation routes.”³

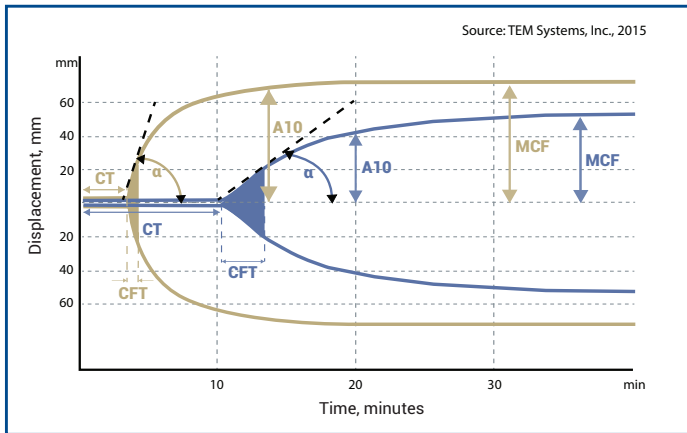
Extreme Physiologic Conditions

QuikClot Combat Gauze has been shown to be effective in preclinical models of extreme physiologic conditions:

- “QCG produces a robust clot that can withstand significant movement” in a hypothermic and hemodiluted porcine model.⁴
- QuikClot Combat Gauze was more effective in achieving hemostasis than standard gauze (84.6% QCG vs. 30.8% SG) and reduced blood loss by an average of 92.5% in a hemodiluted and hypothermic porcine model.⁵
- “Combat Gauze significantly outperforms standard gauze dressings in a model of major vascular hemorrhage in acidotic and coagulopathic conditions.”⁶



Stronger Clots



Test Samples	CT (sec)	CFT (sec)	α (degrees, °)	A10 (mm)	MCF (mm)
QuikClot® + Blood	204	43	81	67	72
Blood	605	181	56	44	54

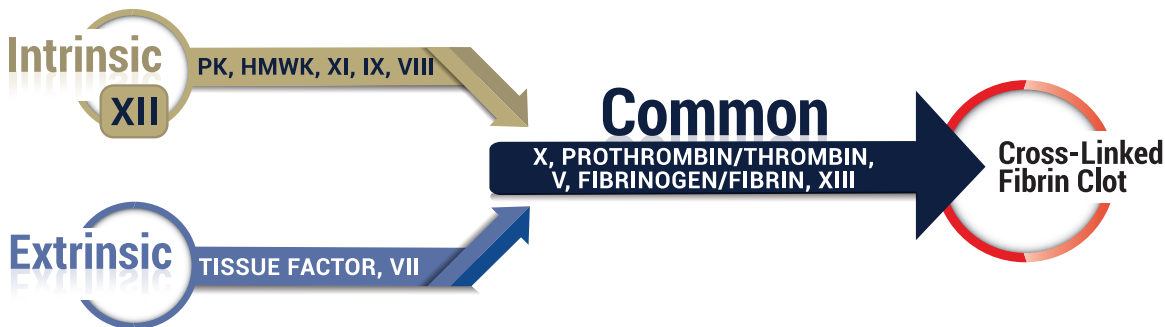
- Blood treated with QuikClot® forms a **firmer** clot (MCF) than untreated blood.
- Blood treated with QuikClot forms a clot **faster** (CT, CFT) than untreated blood.

Reduced Blood Loss and Fewer Rebleeds

- In preclinical studies, Combat Gauze has shown stronger clots versus standard gauze^{7,8} & allows movement with significantly fewer rebleeds.^{4,7,9}
- Combat Gauze showed zero percent rebleed after initial hemostasis in a preclinical study.¹⁰
- A porcine lethal femoral injury study found "significantly less hemorrhage in the QCG group compared to the control group (p=0.003)."⁹

Clotting Cascade

- QuikClot Combat Gauze contains kaolin, which accelerates the clotting cascade^{11,12} and creates a stronger clot faster,¹³ resulting in potentially fewer rebleeds from point of injury (POI) throughout casualty movement.^{4,7,9} Achieving hemostasis quickly and maintaining hemorrhage control throughout the continuum of care (roles 1 - 4) is an important goal in improving patient stabilization and survivability.



1. The Committee on Tactical Combat Casualty Care. Tactical Combat Casualty Care Guidelines. <http://cotccc.com/wp-content/uploads/TCCC-Guidelines-for-Medical-Personnel-170131.pdf>. Published January 31, 2017. Accessed March 31, 2017.
2. Travers S, Lefort H, Ramdani E, et al. Hemostatic dressings in civil prehospital practice: 30 uses of QuikClot Combat Gauze. *Euro J Emerg Med*. 2016;23(5):391-4.
3. Shina A, Lipsky AM, Nadler R, et al. Prehospital use of hemostatic dressings by the Israel Defense Forces Medical Corps: A case series of 122 patients. *J Trauma Acute Care Surg*. 2015;79(4):S204-S209.
4. Garcia-Blanco J, Gegel B, Burgert J, Johnson S, Johnson D. The effects of movement on hemorrhage when QuikClot® Combat Gauze™ is used in a hypothermic hemodiluted porcine model. *J Spec Oper Med*. 2015;15(1):57-60.
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6. Causey MW, McVay DP, Miller S, Beekley A, Martin M. The efficacy of QuikClot Combat Gauze in extreme physiologic conditions. *J Surg Res*. 2012;177(2):301-305. Kheirabadi BS, Scherer MR, Estep JS, Dubick MA, Holcomb JB. Determination of efficacy of new hemostatic dressings in a model of extremity arterial hemorrhage in swine. *J Trauma*. 2009;67:450-460.
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8. Kheirabadi BS, Scherer MR, Estep JS, Dubick MA, Holcomb JB. Determination of efficacy of new hemostatic dressings in a model of extremity arterial hemorrhage in swine. *J Trauma*. 2009;67:450-460.
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12. Lamb KM, Pitcher HT, Cavarocchi NC, Hirose H. Vascular site hemostasis in percutaneous extracorporeal membrane oxygenation therapy. *Open Cardiovasc Thorac Surg J*. 2012;5:8-10.
13. Data on file.