

Supplementary Online Content

Goralnick E, Chaudhary MA, McCarty JC, et al. Effectiveness of instructional interventions for hemorrhage control readiness for laypersons in the Public Access and Tourniquet Training Study (PATTs): a randomized clinical trial. *JAMA Surg*. Published online May 9, 2018. doi:10.1001/jamasurg.2018.1099

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This supplementary material has been provided by the authors to give readers additional information about their work.

Appendix 1: Simulation scenario read to participants

Scenario

There has been an explosion in the stadium. The place you are at is safe and you notice that an individual is lying near you who has lost the lower half of his leg. He is bleeding profusely. Law-enforcement and emergency medical response have been called but it will take 15 minutes for them to arrive. You notice a bleeding control kit on the wall with a tourniquet in there.

1. Pretend you have put on the gloves
2. Proceed.
3. Let me know when you are done

Appendix 2: Flashcard instructions in bleeding control kit describing tourniquet application technique.

Major Bleeding on Arm or Leg Apply C-A-T® Tourniquet

1 **OR**

2

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TWO-HANDED APPLICATION
Route the band around the limb, pass the red tip through the slit of the buckle, and position the C-A-T® 2-3" above the bleeding site directly to the skin.*

OR

ONE-HANDED APPLICATION
Insert the injured limb through the loop in the band and position the C-A-T® 2-3" above the bleeding site directly to the skin.*

Pull band tightly and fasten it back on itself all the way around the limb, but not over the rod clip.

Band should be tight enough that tips of three (3) fingers **CANNOT** be slid between the band and the limb, if the tips of three (3) fingers slide under band, re-tighten and re-secure.

Twist the rod until bleeding has stopped.

Secure the rod inside a clip to lock it in place. Check for bleeding and distal pulse. If bleeding is not controlled, or distal pulses present, consider additional tightening or applying a second C-A-T® above and side-by-side to the first. Reassess.

Route the band between the clips and over the rod. Secure rod and band with **TIME strap**. Record time of application.

*If you cannot be sure or cannot take the additional time to examine where the bleeding is coming from based on the situation, the C-A-T® can be effectively applied over clothing as high on the arm or leg as possible. The C-A-T® must NOT be applied over solid objects within the clothing. As soon as the situation permits, the injured limb should be evaluated and the C-A-T® re-positioned 2"-3" above the injury directly to the skin.

Appendix 3: North American Rescue Bleeding Control Audio Guidance Kit.

In order to only assess the efficacy of visual cues on tourniquet application, portions of the visual cues describing pressure and packing application were blacked out.



Appendix table: Demographics of different arms at retention testing

		Retention tested (n=303)	Control (n=70)	Audio-Kit (n=79)	Flashcards (n=84)	B-Con (n=70)
Age (mean, SD)		49.7 ± 14.9	48.2 ±15.3	50.9 ±15.6	51.3 ±14.1	47.8 ±14.7
Gender*	male	177 (58.4%)	38 (54.3%)	49 (62.0%)	46 (54.8%)	44 (62.9%)
	female	126 (41.6%)	32 (45.7%)	30 (37.9%)	38 (45.8%)	26 (37.1%)
Education level	High School or less	72 (23.8%)	15 (21.4%)	13 (16.5%)	24 (28.6%)	20 (28.6%)
	Some College education	115 (37.9%)	21 (30.0%)	33 (41.8%)	36 (42.9%)	25 (35.7%)
	College Degree	86 (28.4%)	26 (37.1%)	27 (34.2%)	15 (17.9%)	18 (25.7%)
	Advanced Degree	29 (9.6%)	7 (10.0%)	6 (7.6%)	9 (10.7%)	7 (10.0%)
Prior First-Aid Training without hemorrhage control training		161 (53.1%)	39 (55.7%)	47 (59.5%)	49 (58.3%)	26 (37.1%)