Tourniquets

FIELD ASSESSMENT AND CONVERSION

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Quick Agenda

- Intro
- Legends
- TQ - Then and Now
- Skill Sets
- Tourniquet Progression vs. Tourniquet Confirmation
- Final Words
- 118

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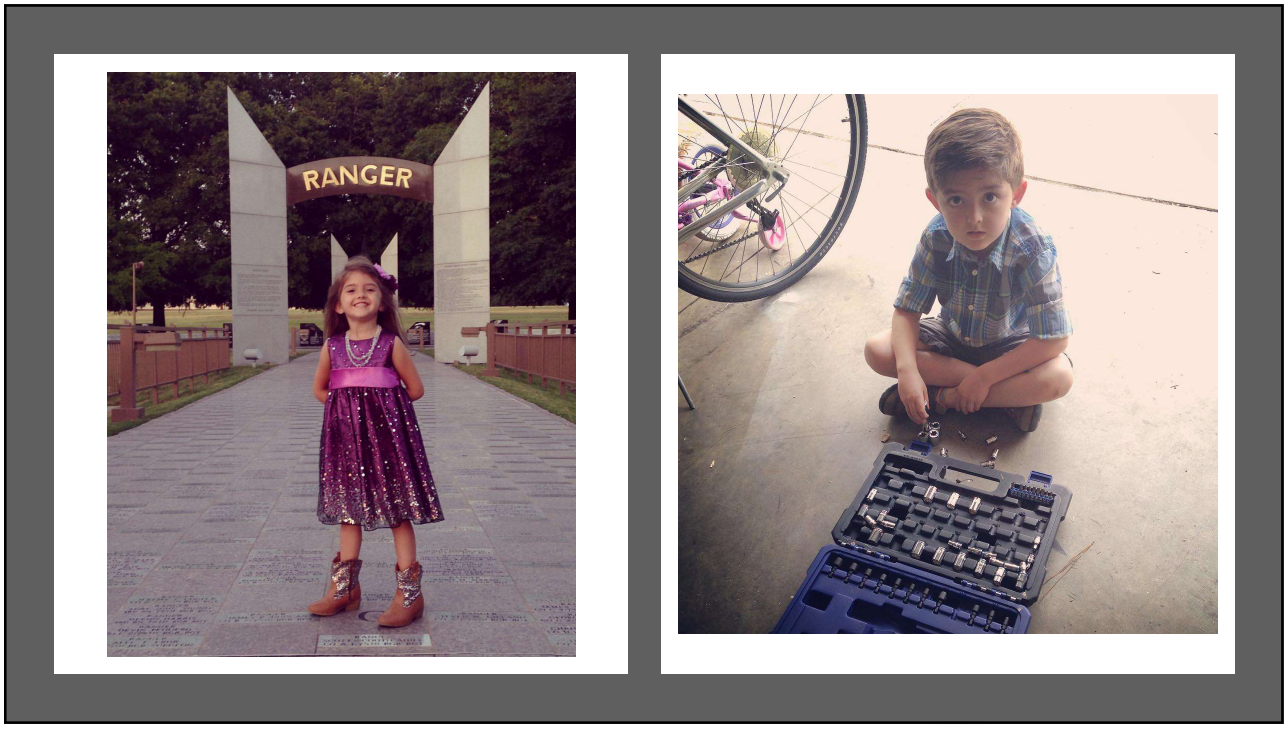

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Frank Butler

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1986

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RANGERS LEAD THE WAY!
DEDICATED TO ALL RANGERS
PAST, PRESENT AND FUTURE

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TACTICAL
ALTY CARE
UPPORT

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"The Medical community must continue to improve its ability to utilize, analyze, and distribute information, data, and trends in near-real time in order to optimize timeliness of performance improvement initiatives that save lives."

COL (R) Bob Mabry from 1998

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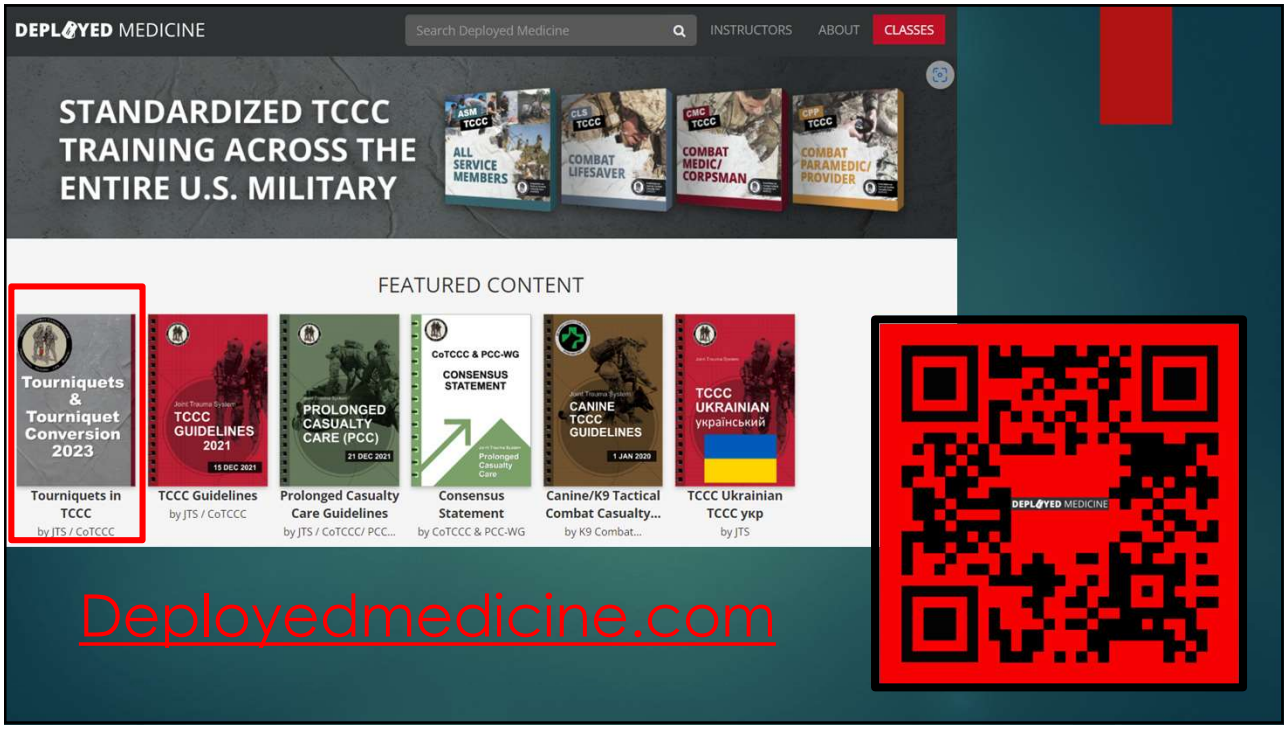

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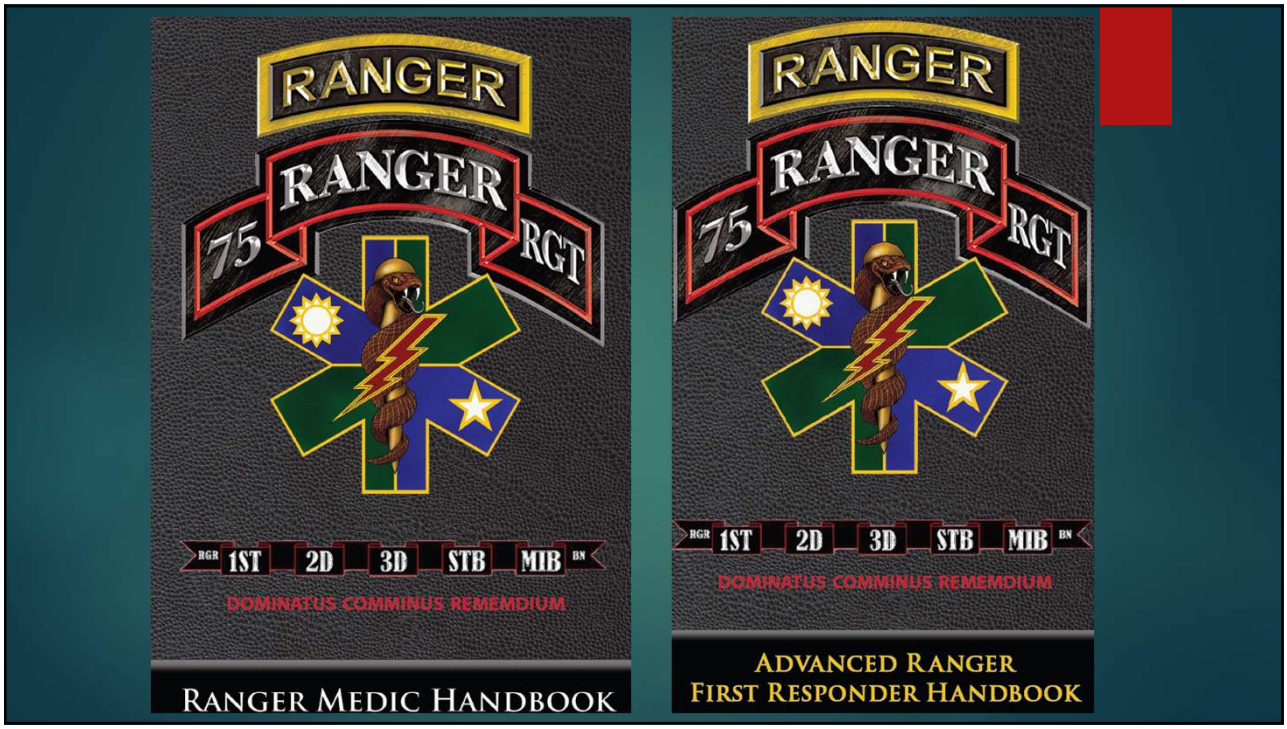

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Tourniquet – Then and Now

- Ratchet Tourniquet - literally a tie-down strap, feared and recommended as last resort
- CoTCCC Approved – Fast, single-handed application, Safe, effective!
- TECC and PHTLS





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TCCC Skills Sets by Provider Level

MASSIVE EXTERNAL HEMORRHAGE	ASM	CLS	CM/HM	CP	ARC
Recognize Life-Threatening External Hemorrhage	X	X	X	X	X
Control Massive External Hemorrhage in TCCC	X	X	X	X	X
Tourniquet Application	X	X	X	X	X
Hemostatic Dressing Application	X	X	X	X	X
Wound Packing with Hemostatic Dressing	X	X	X	X	X
Apply Direct Pressure	X	X	X	X	X
Pressure Dressing Application after Hemostatic Dressing	X	X	X	X	X
Junctional Device/Tourniquet Application			X	X	X
XStat Application			X	X	X

CIRCULATION / BLEEDING CONTROL	ASM	CLS	CM/HM	CP	ARC
Assessment and Treatment of Bleeding in TCCC		X	X	X	X
Pelvic Compression Device Application			X	X	X
Tourniquet Reassessment/Replacement			X	X	X
Tourniquet Conversion to Other Hemostatic Adjuncts			X	X	X
Insertion of Zone 1 REBOA					X*
Management of REBOA Balloon and Catheter					X*

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Life-Threatening Bleeding

MASSIVE BLEEDING

HOW TO RECOGNIZE
MASSIVE, LIFE-THREATENING BLEEDING

BRIGHT RED BLOOD is pulsing, spurting or steady bleeding from the wound

Overlying clothing or ineffective bandaging is becoming **SOAKED WITH BLOOD**

IMPORTANT! Casualties with severe injuries can bleed to death in ***as little as 3 minutes*** — 3 MIN

BRIGHT RED BLOOD is pooling on the ground

AMPUTATION of the arm or leg

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Tourniquet APPLICATION

MASSIVE BLEEDING

TOURNIQUET APPLICATION

A **TOURNIQUET** cuts off blood flow to an arm or leg past the application site; this is the best method to control massive bleeding

APPLY A TOURNIQUET AND STOP BLEEDING WITHIN — 1 MIN

MARCH

WHEN AND HOW TO APPLY A TOURNIQUET (TQ):

- **CARE UNDER FIRE/THREAT**
  HASTY TQ *"High and Tight"* on the wounded extremity or when the bleeding source is uncertain
- **TACTICAL FIELD CARE**
  DELIBERATE TQ applied 2-3 inches above the wound
- Apply a **SECOND TQ** if bleeding is not stopped with one properly applied TQ
  (Note: a severe bleeding wound to the thigh frequently requires a **SECOND TQ**)

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COMMON TOURNIQUET ERRORS

- **NOT** using one when you should or waiting too long to put it on
- **NOT** pulling all the slack out before tightening
- **NOT** making it tight enough – the TQ should stop the bleeding **AND** eliminate the distal pulse
- **NOT** using a second TQ, if needed
- Using a TQ for minimal bleeding *(However, **when in doubt**, apply a TQ)*
- Putting it on too proximally if the bleeding site is clearly visible
- Loosening TQs for a period to allow recirculation of a limb
- Taking a TQ off **prematurely** when it is still needed for hemorrhage control
- **DON'T** put TQs over joints!

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TCCC Skills Sets by Provider Level

MASSIVE EXTERNAL HEMORRHAGE	ASM	CLS	CM/HM	CP	ARC
Recognize Life-Threatening External Hemorrhage	X	X	X	X	X
Control Massive External Hemorrhage in TCCC	X	X	X	X	X
Tourniquet Application	X	X	X	X	X
Hemostatic Dressing Application	X	X	X	X	X
Wound Packing with Hemostatic Dressing	X	X	X	X	X
Apply Direct Pressure	X	X	X	X	X
Pressure Dressing Application after Hemostatic Dressing	X	X	X	X	X
Junctional Device/Tourniquet Application			X	X	X
XStat Application			X	X	X

CIRCULATION / BLEEDING CONTROL	ASM	CLS	CM/HM	CP	ARC
Assessment and Treatment of Bleeding in TCCC		X	X	X	X
Pelvic Compression Device Application			X	X	X
Tourniquet Reassessment/Replacement	?	?	X	X	X
Tourniquet Conversion to Other Hemostatic Adjuncts			X	X	X
Insertion of Zone 1 REBOA					X*
Management of REBOA Balloon and Catheter					X*

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TCCC Skills Sets by Provider Level **NEW**

MASSIVE EXTERNAL HEMORRHAGE	ASM	CLS	CM/HM	CP	ARC
Recognize Life-Threatening External Hemorrhage	X	X	X	X	X
Control Massive External Hemorrhage in TCCC	X	X	X	X	X
Tourniquet Application	X	X	X	X	X
Hemostatic Dressing Application	X	X	X	X	X
Wound Packing with Hemostatic Dressing	X	X	X	X	X
Apply Direct Pressure	X	X	X	X	X
Pressure Dressing Application after Hemostatic Dressing	X	X	X	X	X
Junctional Device/Tourniquet Application			X	X	X
XStat Application			X	X	X

CIRCULATION / BLEEDING CONTROL	ASM	CLS	CM/HM	CP	ARC
Assessment and Treatment of Bleeding in TCCC		X	X	X	X
Pelvic Compression Device Application			X	X	X
Tourniquet Reassessment/Replacement		X	X	X	X
Tourniquet Conversion to Other Hemostatic Adjuncts		X	X	X	X
Insertion of Zone 1 REBOA					X*
Management of REBOA Balloon and Catheter					X*

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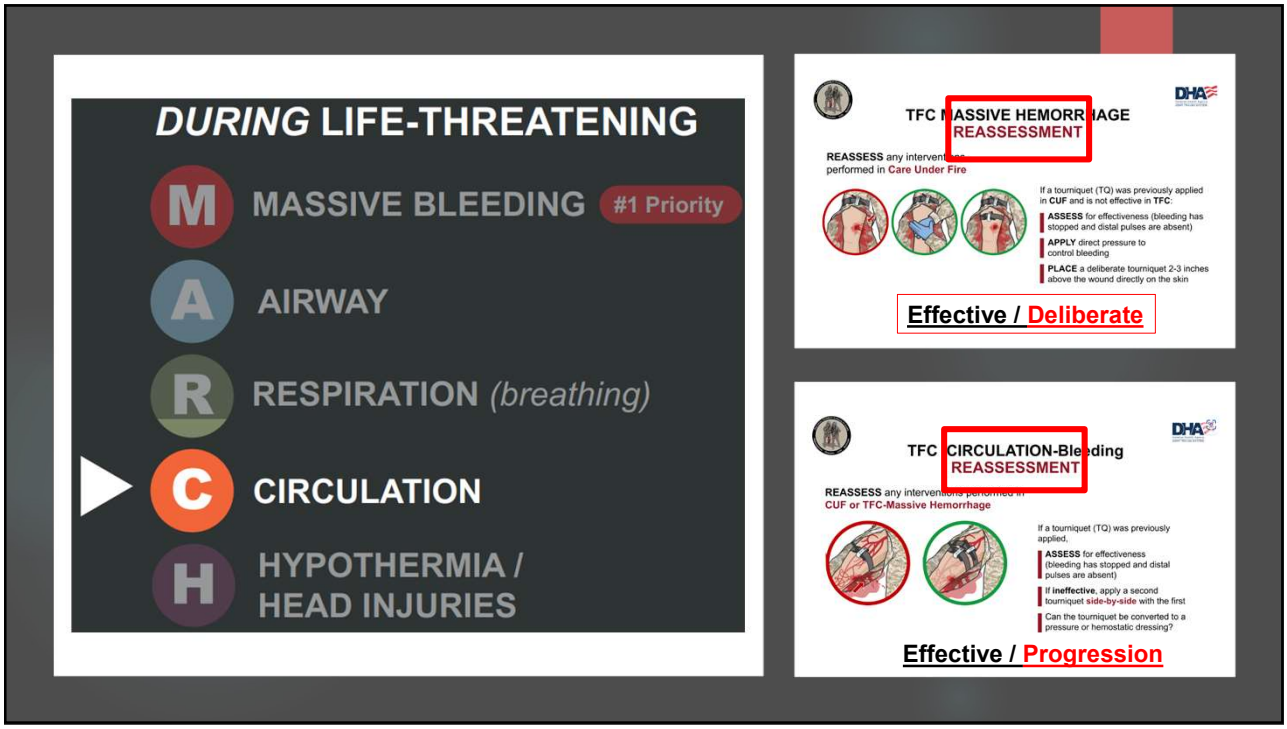

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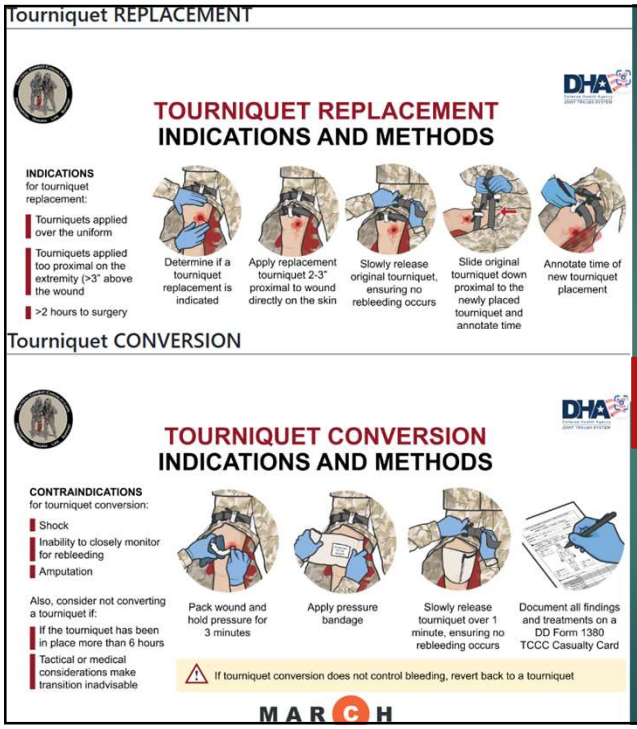

Tourniquet Progression

- Application
- Reassessment
- Replacement
- Conversion

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Final Words

- Medical Directors
  - Assess Operational Environment – Use Guidelines – Make Decisions
  - Direct Training
- Tourniquet Confirmation Loop
  - Don't Get Stuck – We know the options
- Teach and Train Tourniquet Assessment Progression
  - 5 SOF Truths – Competent Special Operations Forces cannot be created after crisis occurs
- Tourniquets Work
  - Be Careful – Leaps ahead that we don't want to lose

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Vernon Cherry

Leon Smith

Joey Agnello

Robert Regan

Pete Vega

Scott Davidson

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Special Features:

- Awarded as one of the "Top 10 Greatest Inventions" by the U.S. Army
- Official Tourniquet of the U.S. Army
- Used by both conventional and Special Operation forces
- Proven to be 100% effective in occluding blood flow in both upper & lower extremities by the U.S. Army's Institute of Surgical Research
- True, one-handed application tourniquet
- Quickly controls life-threatening extremity bleeding
- Recommended by the Committee on Tactical Combat Casualty Care
- Designed to perform in all weather conditions
- Small and cost-effective
- Protected by U.S. Patent Nos. 7,842,067 and 7,892,253

Product Enhancements:

- **NEW Single Routing Buckle** for faster application, decreased blood loss, effective slack removal, fewer windlass turns, and simplified training with single protocol application standards
- Reinforced windlass rod with increased diameter for enhanced strength and aggressive ribbing for improved grip
- Bilateral windlass clip for rapid windlass lock and bilateral buttress for added strength
- Enhanced windlass strap changed to tactical gray and sonic welded to clip for constant contact providing safe windlass security and a place to document the application time
- Reinforced stabilization plate with beveled contact bar
- Signature red elliptical tip (Red Tip Technology®) provides visual cue during application
- Patented free-moving internal band for true evenly distributed circumferential pressure

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