

Chest Seal Application Trainer
Now Available



TRUECLOT[®]

Unprecedented Realism for All Levels
of Bleeding Control Training

 medsim@trueclot.com

 trueclot.com

TrueClot Bleeding Control Training Products were developed under
Office of the Secretary of Defense (OSD) SBIR contract W81XWH-11-C-0062.

TRUECLOT®

Bleeding Control Training Products

TrueClot bleeding control training products provide unprecedented and low-cost realism for all levels of training from beginner civilian Stop The Bleed® courses to more advanced Tactical Emergency and Combat Casualty Care (TECC and TCCC) for professional first responders, combat medics, and corpsmen.

TrueClot Blood Simulant looks, feels, and behaves like human blood and forms realistic blood clots when used with **TrueClot Simulated Hemostatic Gauze**. Thanks to this patented technology, TrueClot's wet **Wound Packing Task Trainers** bleed until the user has packed the wound properly and maintained pressure. The **TrueClot Tourniquet Application Trainer** is similarly designed to continue bleeding until the applied tourniquet is pre-tensioned and tightened correctly. TrueClot's dry **Wound Packing Task Trainers** are ideal for realistic, low-cost, and repetitive wound-packing training and the use of advanced hemostatic gauzes.



Blood Simulant



Simulated Hemostatic Gauze



Tourniquet Application Trainers



Tabletop Trainers for Classrooms



Wearable Trainers for Scenario

A Commitment to Quality, Affordability, and Realism

"We understand the importance of providing reliable and realistic training products at an affordable price. We listen carefully to customer feedback and use it to create a product line that is durable, portable, easy to set up, easy to use, easy to clean, and easy to store."

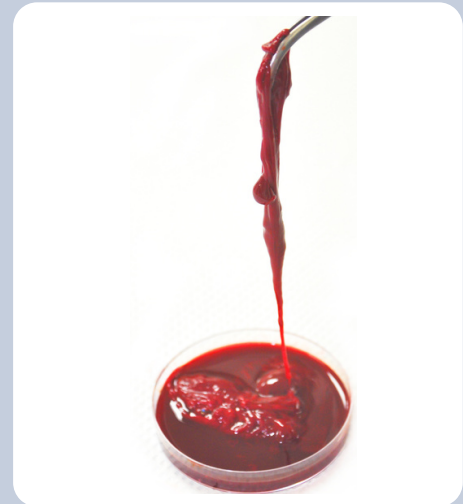
- Brad Day, TrueClot Product Manager



Made with pride in the USA since 2013. The TrueClot family of products is trusted all over the world to train EMS personnel, military first responders, and civilians.

Developed in the Lab Based on Feedback from the Field

TrueClot Blood Simulant was developed with funding from the Office of the Secretary of Defense to provide cost-effective, realistic, and non-controversial bleeding control training for combat medics and corpsmen. This new blood simulant needed to look and feel lifelike while mimicking dynamic clotting in the presence of simulated hemostatic dressings.



The Result

TrueClot Blood Simulant – the only blood simulant with realistic, active clotting.

To complement this ground-breaking new blood simulant, we developed **TrueClot Wound Packing Task Trainers** and **Tourniquet Application Trainers**.



Input from EMS and military first responders inspired training tools that are realistic, affordable, and easy to use in trauma training environments.

Now used to train EMS personnel, military first responders, and civilians across the globe, this suite of training products ensures the readiness of medical professionals to deliver life-saving bleeding control.

Customer Testimonies

“The TrueClot training products we use in our curriculum are the reason we have such success. They’re the focal point for our classes. Language barriers can make any instruction confusing, but blood is universal. For our recent work in Ukraine, every person we’ve trained has expressed incredible gratitude.”

John Steinbaugh, RevMedX | Task Force Antal Humanitarian Relief



“TrueClot products have enhanced the training world for today’s First Responders. These products are second to none in the industry. Operating as a training center for over 19 years, we have added Trueclot products to all of our trauma classes. We are grateful for the way these products enhance our training.”

Shawn Soler, CEO | Medicine in Bad Places

Why TrueClot Bleeding Control Training Products?

Unprecedented realism for all levels of training

Validated by experienced first responder trainers in live training exercises

Minimize need for more expensive or controversial training techniques

Task Trainers

- Extraordinarily durable ballistic nylon or silicone construction ensures a single task trainer can be used in thousands of training sessions, limiting equipment costs
- Silicone wound beds are easy to clean and dry for storage
- Choice of skin tone adds customization to training scenarios
- Do not require batteries or external power and have no moving parts



Blood Simulant

- Mimics dynamic blood clotting (with **TrueClot Simulated Hemostatic Gauze**)
- Will not clog plumbing of third party platforms
- Made from non-hazardous cosmetic and food grade materials for easy waste removal
- Easy cleanup with soap and water
- Shelf stable for 36 months
- Available as a concentrate for compact shipping and storage and increased shelf life
- Approved for use in various simulation systems and high-fidelity manikins
- Safe to use with live actors
- Will not clot unless in contact with **TrueClot Clotting Solution** or **Simulated Hemostatic Gauze**
- Perfusion of cadavers and cadaveric tissue with realistic simulated bleeding; tissue returns to healthy pink color



Clotting Solution

- Can be used with **TrueClot Blood Simulant** to create moulage clots or simulate tissue (splatter, avulsion, hematoma, and more)
- Can be used with inert training gauze to create hemostatic gauze mimics that will work with **TrueClot Blood Simulant**
- Safe to dispose in household and commercial trash



APPLICATIONS FOR EVERY TRAINING ENVIRONMENT



Immediate Responder and First Responder Training



Scenario Training



Simulation Centers and Moulage

Wound Packing and Tourniquet Placement



Repetition allows trainees to practice:

- Development of “muscle memory” to perform effectively under stress
- “Stress inoculation” through enhanced realism and accurate mimicking of blood properties and clotting

Mechanics of Wound Packing



- Sweeping the wound
- Finding the source of hemorrhage
- Tearing open slippery packing with bloody hands
- Packing to the bone and toward the source of bleeding
- Applying constant pressure

Mechanics of Tourniquet Application



- Proper placement and application above a bleeding injury
- Not placing on a joint
- Proper pre-tensioning
- Application of full pressure
- Assessment for other injuries after application

Mechanics of Chest Seal Application



- Using multiple types of chest seals
- Applying chest seals to a bleeding injury **with simulated tension pneumothorax**
- Multiple chest seal applications on bleeding entry and exit wounds

PRODUCTS Blood and Gauze



NSN: 6910-01-694-8337

Pre-mixed Blood Simulant

- ✓ Looks, feels, and behaves like human blood
- ✓ Forms simulated blood clots when used with **TrueClot Clotting Solution** and **Simulated Hemostatic Dressings**
- ✓ Safe and non-hazardous
- ✓ Washes from skin and clothing with soap and water
- ✓ Discard in household and commercial trash
- ✓ Gallon and half gallon quantities



Blood Simulant Concentrate

- ✓ Convenient to ship and store
- ✓ Requires mixing with water prior to use
- ✓ 1L and 1 gallon quantities



NSN: 6910-01-694-8344

Simulated Hemostatic Gauze

- ✓ Works with **TrueClot Blood Simulant** to create realistic simulated blood clots during wound packing simulation
- ✓ Available in 4 ft and 12 ft lengths
- ✓ Individually packed for scenario training
- ✓ Bulk packs for trauma lane or classroom training



Clotting Solution

- ✓ Create moulage blood clots or tissue
- ✓ Convert inert training gauze to simulated hemostatic gauze

U.S. Patent No. 9542861

Beginner Trainers



Basic Packing Trainer

- ✓ Low-cost for dry wound training
- ✓ Ideal for repeat practice and developing muscle memory

Packing, Compression, and Tourniquet Task Trainer

- ✓ Simulated leg ideal for introducing and reinforcing wound packing, compression bandages, and tourniquet application
- ✓ Use as a dry trainer or moulage with blood simulant for a realistic training experience

Wound Packing Task Trainers



- ✓ Low-cost and repetitive training in wound packing and the use of advanced hemostatic gauzes
- ✓ Realistic anatomy and wound beds with hidden bleed points
- ✓ Include 5 packs of **TrueClot Simulated Hemostatic Gauze** and **Concentrate** to make 1L of **Blood Simulant**
- ✓ Available wound beds include laceration/stab wound and gunshot wound with bony landmark for "pack to the bone" training

Wearable Scenario Trainers



- ✓ Wearables can be placed on a manikin or worn by an actor

Inguinal Packing Trainer

- ✓ Simulates a junctional hemorrhage that cannot be treated with an extremity tourniquet

Tourniquet Application Trainer

- ✓ Requires proper application at full pressure to stop simulated bleeding

Chest Seal Application Trainer

- ✓ Simulates bubbling, breathing, and chest seal venting/sealing
- ✓ Suitable for both table-top and scenario training
- ✓ Wearable entry and exit wounds with flexible placement



Kits also available (include Wound Packing Task Trainer, Blood Simulant Concentrate, mixing bottle, and Simulated Hemostatic Gauze)

- ✓ Ideal for wound-packing training for 20-30 trainees

NSN: 6910-01-694-8333

TRUECLOT[®]

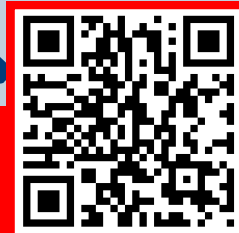
Lifelike Bleeding Control Training for All Responders

TrueClot products are proudly provided by Luna Labs USA, LLC.

SBIR and STTR Program Policy Directive issued by the Small Business Authority on May 3, 2023 mandates that Federal Agencies must procure technologies and products developed under SBIR/STTR awards “to the greatest extent practicable, consistent with an Agency’s mission and optimal small business participation.”

TrueClot Bleeding Control Training Products were developed under Office of the Secretary of Defense (OSD) SBIR contract **W81XWH-11-C-0062.**

Find a distributor in your area



Connect with us!



medsim@trueclot.com

trueclot.com



[linkedin.com/showcase/
luna-labs-trueclot/](https://www.linkedin.com/showcase/luna-labs-trueclot/)

[@trueclot](https://www.instagram.com/trueclot)



All TrueClot products are latex-free. HS Code: 9023000000, “Instruments, Apparatus And Models, Designed For Demonstrational Purposes, Unsuitable For Other Uses, And Parts And Accessories”