



+

# Moulage Training Uniform



## Medical Moulage for Any Environment Cost Effective & Consistent Training

Moulage injuries, a cornerstone in practical emergency training, have remained nearly unchanged since their inception, with inflexible functionality and extremely limited package options.

We found they all had the same shortcomings and that there exists a necessity to increase time executing scenario training with realistic injuries no matter the training environment or objective.

**At A.T.T.S, we threw out the old model and created something better.**

The Moulage Training Uniform was designed to deliver the most realistic and practical method of emergency medical instruction using our innovative training apparel. Our system enhances familiar educational aids by simplifying application procedures, enriching situational realism, and allowing for 1000s of scenarios and wounding patterns, with a quicker setup and break down than any existing product.

Advanced Trauma Training Systems™ products are protected by one or more U.S. Patents pending.



# A.T.T.S.

## Background & Mission

A.T.T.S., a veteran owned and operated company, builds upon lessons learned and limitations faced while conducting medical training for a variety of first responders around the world. Our small, expert team has instructed basic emergency care, pre-deployment training for war zones, active shooter response and rescue operations, and first responder triage in mass casualty scenarios.

First aid training helps prepare how individuals assess and treat patients while under pressure, influencing their judgment through hands-on educational repetition, ultimately developing how they go about making critical life-saving decisions.

**At A.T.T.S. our mission is to provide educational medical products and services allowing first responders to rapidly gain confidence in training and achieve operational success in their varied and demanding fields.**





# Healthcare Simulations

## Traditional Training Limitations



### Time Consuming Setup

Recently there have been great advances in simulation technology, but most training is conducted using basic non-invasive training aids attached to a role player or manikin using static moulage injuries, applied over the clothing or adhered to the skin and augmented with makeup to increase realism.

#### Drawbacks of existing training aids:

- Makeup application is time consuming, messy and usually distorted after the first bandage is applied.
- Injuries applied with adhesives cannot be transferred between students and may agitate skin.
- Kits utilizing straps may struggle to stay in place or become snagged in active environments.
- Often requires one or more persons to create & apply injuries.

### Limited Application Sites

Due to the nature and design of existing training aids most injury application sites are limited to the head, neck, arms, and lower legs. Avoiding the torso does not match realistic wounding patterns, but is of help to the role player, that may not be comfortable exposing sensitive areas of their body for evaluation and treatment.

#### Shortcomings of readily available kits:

- Wounds designed to attach to specific parts of a limb, restricting relocation of basic injuries.
- Inconvenient methods of attachment requiring users to remove articles of clothing.
- Artificial blood delivery systems can decrease patient mobility and require additional components.
- Wounds over clothing detract from situational realism.

### Simulation Manikin Attire

Simulation manikins can range from inanimate to fully automated, designed to replicate wounding of the 11 major organ systems. Expensive training aids may have fabricated tissue and organs or life-like physiological responses operated through electronics. These manikins are often used in scenarios without attire.

#### There are couple reasons for this:

- Additional overhead costs replacing articles of clothing damaged during instruction.
- Lost time between scenarios replacing or reapplying garment arrangements removed for accessing patient.
- Injuries applied to manikins with adhesives may damage the training dummy or may not be compatible.
- There is no other system available on the market for this type of training.

# + Moulage Training Uniform Advantages

By combining realistic injuries and rapidly alterable outerwear to your point of wounding care scenarios you introduce a more dynamic level of instruction for first medical care providers across the spectrum of military, hospital and civilian students. Practicing life-saving interventions on the human body has never been easier and more believable than the Moulage Training Uniform compared to current systems; eliciting stress responses that would be present in the field with actual trauma victims.



## Hands on Palpation

The foundation of first-responder training is the hands-on palpation of casualties, and stabilization and bandaging of injuries, in an atmosphere closely resembling the environment they will be expected to perform in. Use of these skills in realistic scenarios cannot properly be learned through textbooks or lectures; we cannot expect our students to grab their medical kits and apply care based on a PowerPoint presentation they saw months to year's prior. Additionally, students often have an exaggerated reaction to the first injury seen and forget to search for secondary wounds.



## Visual Stimulus

Trauma windows, moveable from a closed to open position, are used to conceal moulage injuries placed on the suit. These windows provide valuable visual cues of underlying injuries, enhancing simulation authenticity as well as providing access to the individual's limbs and/or torso. By delivering visual evidence of the mechanism of injury, students must make on the spot assessments of wound patterns, many of which may mean increased patient survival due to identification and treatment of possible systemic issues, such as in blast injuries.



## Speed and Privacy in Changing Roles

Constructed to be worn over a role player's attire, uniforms can be swapped between students without the need of dressing rooms or removing footwear. Quickly relocating injuries and complements the fast-paced learning environments often demand, maximizing their time and financial constraints. Creativity is given to instructors as the methods for customizing the MTU apparel is centered on their needs and requirements to deliver specific learning points. Instructors can quickly change scenarios while wearing the uniform themselves if needed or take it off and put it back on within a few minutes when moving on to a new point of learning.



## Training Manikin Benefits

While descriptions of product use is directed towards live participants it is clear that training manikins may be substituted without affecting the quality of teaching delivered. Manikin training will be more realistic utilizing the uniform in either the trauma panel or access panel configurations. Those practicing rescues on inanimate manikins can add to their scenarios by implementing care, changing the techniques needed for carries. Those in clinical settings love the same exterior trauma windows but with access panels, receptacle areas removed, so instructors can access the animated anatomical models underneath the uniform to deliver simulated treatment.

# + Moulage Training Uniform Overview

Buying the right products for your training makes all the difference in your ability to prepare for patients in the field. While there are many kits available on the market today few can compete with the total package delivered by our training uniform, variations of common injuries, and attachment areas around the wearer's body allowing for faster design and implementation of complex medical training scenarios. We have designed the MTU to grow with your needs to deliver unmatched training quickly, safely, and effectively.



## **Moulage Training Uniform (MTU)**

Offered in two variations so you may use our kit set-up or enhance your current one:

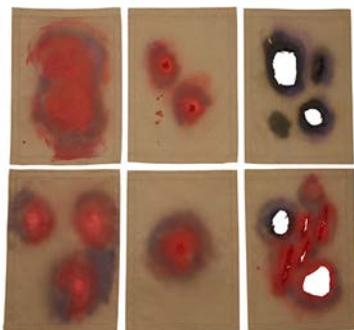
**MTU w/ Trauma Panels:** The integrated hook and loop revealable panel area of the garment is used to securely attach moulage injuries in place for training. Can be used with or without trauma windows if scenarios call for exposed injuries.

**MTU w/ Access Panels:** Incorporated panels allowing access underneath the patient's outer garments work in conjunction with injuries attached to casualties or manikins such as glued, adhesive backed, or secured with fastening strap.



## **Moulage Wound Kits**

Our injuries are handmade from a latex based material to have the appearance of common injuries to include deformities, contusions, abrasions, burns, bruising, penetrating/puncture wounds, laceration and swelling. Currently we offer Velcro backed and non-adhesive. Injury kits contain 30 variations of wounds, allowing instructors to utilize the Velcro backed injuries on additional casualties through supplemental straps or on most soft sided material without the need for adhesives.



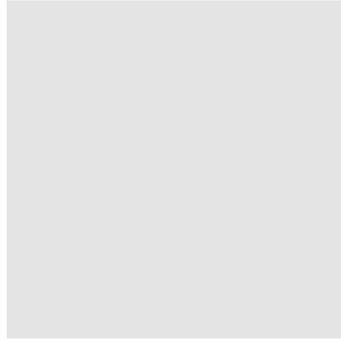
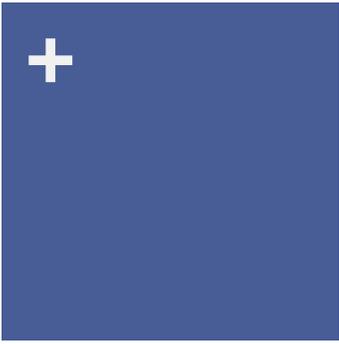
## **Trauma Windows**

The MTU was developed around our trauma windows. Removal of outerwear is very often needed to further treat injuries; having replaceable panels allows only one section of the uniform to be removed to expose the injury. This reduces having to replace entire articles of clothing for each set-up while satisfying training requirements of revealing the area for treatment. Each kit comes with six additional windows for your customization; extras can be ordered at anytime.



## **Expansion Panels for One-Size-Fits-All Flexibility**

The MTU can be adjusted to accommodate the physical characteristics of almost any role player as the expansion panels on the sides of both garments allow our suits to expand and contract. 12 heavy-duty, two-way, separable zippers conceal additional fabric tucked into expansion pockets. The MTU offers a first of its kind methodology, designed for all body and uniform types. The expandable portions allow a tailored fit and can accommodate cold weather gear, personal items left in pockets, as well as casts and braces a role player may have. A first on the market.



## + Expanding Concepts

### Grow the scale of your exercises

Whether civilian first responders or military personnel, emergency medical training must be conducted at the lowest level, by the end users. **Simplicity in design** gives MTU users nearly unlimited options without the need for formal training on make-up or adhesives to properly apply and disguise wounds on role players. The ATTS system allows customers to **create unique learning opportunities** autonomously, with freedom to think “out of the box,” and conduct the **most realistic training** possible.

The goal of training is rapid integration of learned skills into applied skills and the MTU compliments many methods of learning through the diverse range of wound options and attachment methods. Student skillsets can grow from basic field care to intensive medical training. Students can also learn or refresh skills, and reorient their focus to specific developmental scenarios utilizing their newly acquired tactile skills and classroom knowledge.

Students can also take control of their own learning and recreate scenarios described in their textbooks, giving them the chance to **turn theory into practice**, maximizing their downtime and developing confidence.

Military exercises and mass casualty scenarios using multiple sets of MTUs will find the transition to developing true-to-life learning evolutions in either TCCC or TECC settings is **quick and easy**, compared to existing solutions. Role players can wear their unit's current uniform, having natural freedom of movement, while using injuries secured in place that realistically simulates appearance, texture, and anatomical position. Increasing the pressure associated with complex responses of this nature **encourages proper triage of casualties** as dozens of injuries can be worn on each MTU, channeling their attention on saving preventable deaths, preventing additional casualties, and completing their training mission with necessary stressors due to realism.

# Practical Instruction Through Simplicity

## Take Control of Your Training

During ongoing product testing our customers have consistently expanded training options, added authenticity to their training, and significantly reduced turnaround times between scenarios. The MTUs **intuitive design** provides reduced user setup times, there is no need to train-the-trainers on complicated systems, and no need for prosthetic make-up, which can be a lengthy process. These factors lead to more opportunities for trainees to learn “hands-on” medical evaluations in an environment where each repetition feels lifelike and can be significantly altered within seconds. Not all moulage training accessories available today are **well-matched for fast-paced education** in austere environments or intended to be used over many rotations.

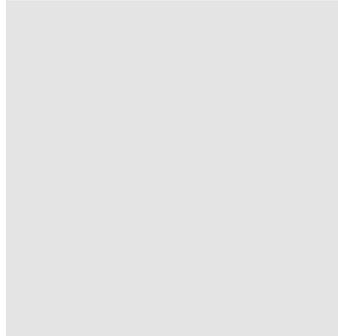
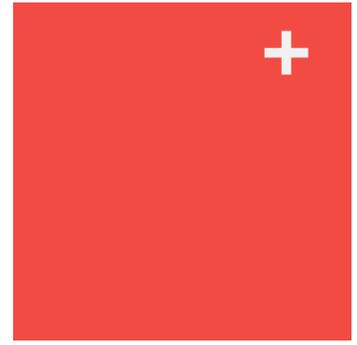
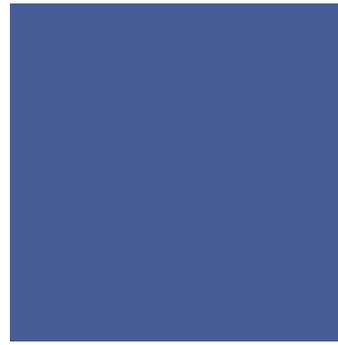
Our system aims for student proficiency in categorizing treatment of victims, providing realistic scenarios to practice care and increase communication of vital information to follow-on responders in training for crisis response, emergency management, and mass casualty skill improvement.

Scenario development will determine the appropriate courses of action in taking a safe, responsible approach to rendering aid. The Advanced Trauma Training System’s collection of wardrobes, various methods of injury attachments (uncovered or concealed), and trauma windows, for outward appearance of distress, increased learning options and require critical attention to detail of those involved as wounds are not simulated through imagination or written on a piece of tape.

At a distance exposed injuries and damaged trauma windows will enable students to begin to anticipate the types of injuries and possible treatment. Was there a vehicle rollover (fractures, breaks, lacerations)? Is this a response to a fire or hazardous material accident (burns, blisters, lesions)? Are they first on scene after an active shooter or terrorist event (penetrating/puncture wounds, blast effects)?

Blood soaked trauma windows or those that show tears & perforations during an initial patient assessment will help students form their impression of the extent of injuries on unresponsive patients. For example, abrasions may require direct pressure, severe lacerations may need a pressure point or clotting agent, whereas amputations may require a tourniquet to reduce hemorrhaging.

Penetrating/puncture wounds to the thoracic cavity may necessitate sealing all entry and exit wounds with an occlusive dressing to prevent tension pneumothorax and external thoracic blood loss. Open and closed fractures available in the kits may require a sling, splints, or stabilization above and below joints depending on their location and type.





## A Quick Word from Us:

Thank you for reviewing our product. The conception was simple; how do I maximize my time effectively teaching combat casualty care to students who are on their way to war? The resulting concept is the MTU, based on my personal need to provide the highest quality training for those whose knowledge retention I felt personally responsible for. These suits have allowed for scenarios to continue well past the point of where “endex” is traditionally called, extending learning opportunities in a variety of training settings. Improvise, Adapt, and Overcome; the result of our work leads to simplicity in training, confidence in skillsets, and competence when it counts.

Tyler Hare, fmr USAF & EMT  
*President*

I became a medic after a chaotic tour with the infantry where I experienced multiple mass casualty scenarios with minimal first aid training. As a military medic, flight paramedic and tactical medic over the last few decades, I have constantly revisited these scenes in hopes of using my experience of the panic and disassociation as a barometer of my own instruction. As a trainer, I’ve carried or shipped bags of moulage, uniforms, and fake blood globally in hopes of increasing training realism. All this extra effort was worth it, but unsustainable. The MTU is a system that brings the ability to approximate this important training to the smallest organizational level and will change course of first aid education.

Nic Troffer, EMT-P, FP-C, fmr SF Medic  
*Vice President*

## Advanced Trauma Training Systems

*A veteran owned and operated company.*

DUNS: 117090136 CAGE: 8CFU2

Advanced Trauma Training Systems™ products are protected by one or more U.S. Patents pending. (307) 214-9586

[www.a-t-t-s.com](http://www.a-t-t-s.com)

2528 Sunchief Ln

Lake Havasu, AZ 86403