



# **HEMORRHAGE CONTROL LEG TRAINER P103, P103D**

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# HEMORRHAGE CONTROL LEG TRAINER P103, P103D

## ➤ PRODUCT INTRODUCTION

Trainer for hemorrhage control on lower extremity with realistic wound and bleeding simulation. Hemorrhage is the loss of blood components from the cardiovascular system. When the blood loss leads to inadequate tissue oxygenation in the whole body or parts of it, a hemorrhagic shock can occur. It is the ideal tool for improving training in preclinical patient care with instructions and practical exercises in controlling bleeding using wound packs and tourniquets.

It is a solution for realistically training bleeding control and traumatic thigh injury management. Students will gain confidence in managing difficult bleeding using tourniquets, wound packing, and amputation management techniques. For lower extremity hemorrhage, retrospective studies have shown that extremity tourniquets reduce bleeding with a low rate of complications. To be better prepared to save lives in an emergency, hemorrhage control and applying tourniquets have to be trained very well. This simulator is especially suitable for Tactical Combat Casualty Care (TCCC) and Civilian Casualty Care training.

The affordable Hemorrhage Control Leg Trainer P103 by 3B Scientific is the perfect solution for realistic training of bleeding control and management of traumatic injuries on the Leg.

The Leg is equipped with three different wound patterns:

- Deep laceration in the groin area
- Gunshot wound with entry and exit wound on upper thigh
- Amputation in the knee area



The trainer functions as a stand-alone simulator but can also be worn by a volunteer for added realism and in field training using the carry strap of the bag. The bleeding can be simulated realistically including direct feedback (stop of bleeding) when the trainee successfully apply the tourniquets.

Train the following hemorrhage control procedures:

- Tourniquet application
- Wound packing, including junctional wound
- XSTAT® (hemostatic device) application

## ➤ DELIVERY CONTENT



1. Hemorrhage Control Leg Trainer P103
2. Two wound covers in 3B SKINlike™ silicone
3. 2 litre canister
4. Hand blood pump system

5. Canister blood pump system cap
6. Multiple bleeding connector
7. Blood powder (100 grams)
8. Carry bag with straps
9. Sand bag

**Tip:** High-quality 3B SKINlike™ silicone has been used for the realistic representation of skin and tissue. Be careful not to cut the material when using sharp objects and long fingernails during wound packing.

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## ➤ PREPARE SIMULATED BLOOD

1. Add two spoon (20 grams) of powder to 2L of water
2. Stir until there are no powder lumps/residues and the solution is complete
3. Fill the canister with the simulated blood
4. Close the canister. The blood is now ready for use with the hemorrhage simulator



### Note:

By adjusting the mixing ratio of water and powder, you can fine-tune the color and viscosity to meet your specific needs.

## ➤ HOW TO FIX THE LEG TO THE SAND BAG

Use the sand bag to keep the leg sturdy while training

1. Fill sand into the plastic bag that is inside the sand bag
2. Loosen the buckle on the sand bag
3. Screw the back of the leg to the sand bag
4. Tighten the buckle on the sand bag until tight grip is achieved



## ➤ BLOOD PUMP SYSTEM: SETTING A BLEEDING SCENARIO

1. Replace the canister cap with the blood pump system cap
2. Secure the larger tube of the blood pump by simply pressing the tube through the blue valve
3. Insert the smaller tube in the remaining hole of the cap to enable blood return
4. Close the black valve of the hand blood pump system tube, if you are not starting the training right away

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## > N°1: SINGLE BLEEDING WOUND

1. Identify which wound you want to train on, and which bleeding port you need to connect to
2. Connect the hand blood pump system tube coupling to the selected wound bleeding port
3. Open the black valve to start the training



### Note:

To avoid any confusion, the three wound bleeding ports are numbered from 1 to 3. The port N°1 will be the port for the most proximal wound which is the junctional wound.



## > N°2: SIMULTANEOUS 3 WOUNDS SCENARIO

1. Connect the three bleeding ports to the multiple bleeding connector coupling
2. Connect the last extremity of the multiple bleeding connector to the hand blood pump system tube coupling
3. Open the black valve to start the training



## > N°3: SIMULTANEOUS TWO BLEEDING WOUNDS

1. Identify which two wounds you want to train on, and which Leg bleeding ports you need to connect to
2. Use the clip and block the bleeding from the wound which is not needed
3. Connect the hand blood pump system tube coupling to the selected wound bleeding ports
4. Open the black valve to start the training



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## > HAND BLOOD PUMP AND WOUND COVER



### Important:

With the hand blood pump you can build up a simulated high pressure, which can be higher than the normal blood pressure. **Therefore, the pump should not be operated with more than 3 fingers.** This ensures that the required blood pressure is displayed in the leg blood vessel and during tourniquet application training

### Tip: Wound Cover Handling

for more realism and to avoid any confusion during a training scenario with one single bleeding wound, do not forget to install the dedicated wound cover(s). Those wound covers will enable flexibility in scenarios. After the utilization of the leg, all the wound covers must be removed for cleaning and storage of the model

- The wound cover sleeve is for the gunshot wound
- The other wound cover is for the junctional laceration wound



## > HOW TO MAKE THE LEG WEARABLE

For more realism during a scenario the carry bag strap can be used to wear the leg on a simulated casualty.

1. Remove the strap from the carry bag
2. Attach the strap to the dedicated hook on the leg
3. Place the strap of the simulator around the upper body of the simulated casualty
4. Tighten the strap to secure the leg



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## > CLEANING AND CARE

After the training, the complete leg blood vessel system should be flushed with clean water.

1. The canister can be filled with water
2. The multiple bleeding connector coupling should be connected to the leg blood ports
3. Clean water should be pumped into the system until no trace of simulated blood can be detected flowing out of the wound

To make sure there is no remaining water into the blood vessels, the tube of the blood pump system is pulled out of the canister and some air is pumped into the system until no more water flows out of the wounds

## > CONTACT INFORMATION



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## > TECHNICAL DATA

Weight: 5.1 kg  
Dimension trainer: 56 cm (Length)  
58 cm (Thigh circumference)  
Operating temperature: 0°C à +30°C (32°F à 86°F)  
Storage temperature: -10°C à +40°C (14°F à 104°F)

## > ORDER LIST

Consumables	Item No.
Blood powder (set of 10)	1024091
Blood powder	1023954