Puncture Pete (EN)

Hyperrealistic IV training arm

Manual

Ref.no. 7710
Ref.no. 7711

Experts in medical education since 1950

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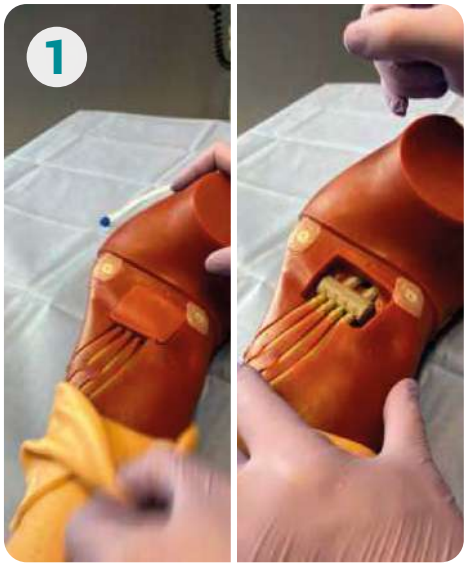
Erler-Zimmer GmbH & Co. KG · Hauptstr. 27 · D-77886 Lauf
Tel.: (+49) 07841/67191-0· info@erler-zimmer.de · www.erler-zimmer.de



1. Place absorbent pad or drape on table surface.
2. Remove Arm from storage bag and place on absorbent pad.
3. Roll skin of the arm back until manifold plug is visible. Remove plug and inspect to ensure tubing has snug connection.

Leaving manifold exposed, clamp off the blood bag. Hang and fill bag with simulated blood. Attach to clear tubing coming from shoulder.

Setup

Remove endcap on the clear drain tube of the arm and place it into a basin. Unclamp blood bag tube to allow it to flow through the “veins.”

Alternate pinching the tubes for each channel to ensure the flow of blood removes all air bubbles. Hold for about 10 seconds each or until air bubbles are not visible.

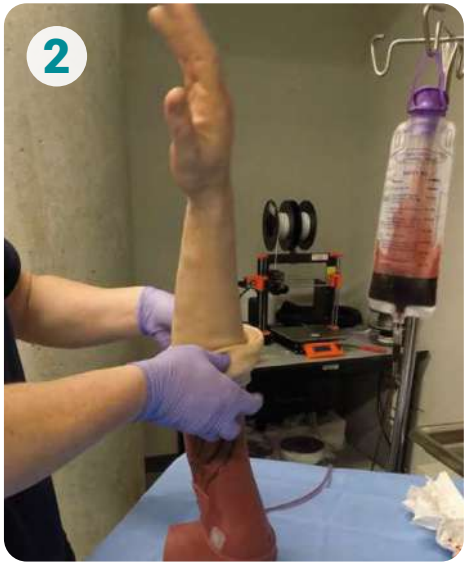
Clamp inlet tube and replace the end cap on the drainage tube.

Reseat the manifold cover and roll the arm skin back over the core.

Set out venipuncture supplies, such as tourniquets, gauze, 20-gauge IV injections, adult IV kits, and gloves.

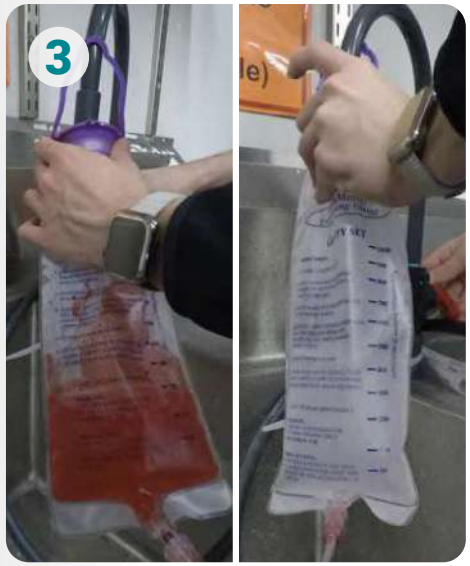
When learners are ready to begin venipuncture, unclamp inlet tube and adjust the heightof the blood bag to approximately 20cm above tabletop surface.

Drain blood from the arm and blood bag by removing endcap and unclamping drainage tube. Raise gravity bag and place the drainage tube into a basin or blood bottle.

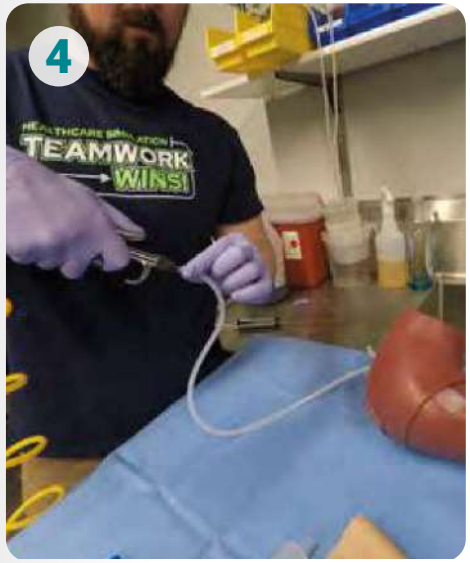


Gently remove the outer skin from the core by pulling it upwards.
Remove the manifold cover.

Cleanup and Storage



Rinse the blood bag with DI water until clear, then use it to flush the arm into the sink. Once again, hold one channel shut at a time to ensure both channels are getting rinsed sufficiently.



Using LOW PRESSURE (<10PSI) air hose or empty syringe, push air through the tubing on the arm to purge excess moisture out of „vessels“.

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Rinse the outside of the core and the grooved channels then rinse the inside of skin sleeve.

Hang the sleeve open-side-down to dry. Hang gravity bag with cap open. Leave to dry overnight.

Cleanup and Storage

Store in protective bags with the gravity bags placed ON TOP once dry (see tips & tricks).

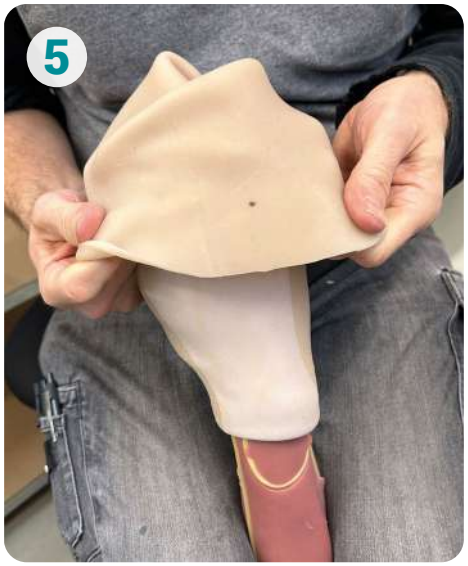
Turn the skin inside out so that the inside is on the outside. Only do this up to the wrist.

Moisten the inside of the skin with talcum powder or baby powder. Find the opening of the hand.

Pulling the skin

Identify where the thumb and fingers are.

Align these landmarks with the core and gently pull the hand onto the core.



Carefully pull the skin over the hand and arm until the skin fits correctly.

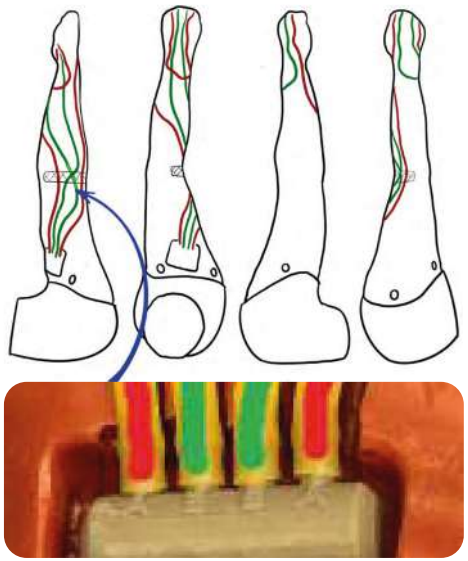
⚠ **Caution:**
Silicone is resistant, but not indestructible. Handle the skin with care and do not over-stretch it. Long fingernails and sharp-edged rings should always be avoided (as with a patient).

Check the correct fit of the skin by placing the veins under the corresponding structures of the skin. GENTLY pluck the skin with your fingertips, to correct this.

⚠ **Caution:**
Avoid gripping with fingernails or contact with edged jewellery.

Tipps & Tricks

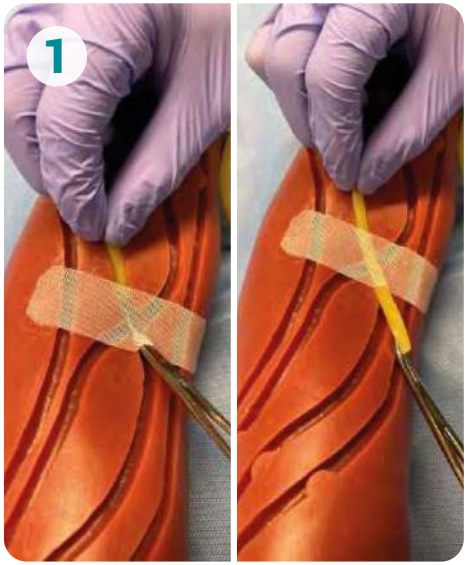
- **Silicone is durable, but not indestructible. Take care not to overstretch the skin. Failure to do so will lead to irreparable tearing. Avoid wearing anything that may tear the skin during servicing, i.e. long fingernails or sharp jewellery.**
- Try to use only 20- and 22-gauge needles or smaller on these arms.
- Always check the tubing, skin, and manifold for leaks and re-place if necessary.
- When storing or leaving overnight, do not leave anything hard or rigid, including the tubes, underneath the arm. This could lead to indentions and marks being left in the silicone, which can negatively impact the performance of the arm over time.
- These arms are constantly being improved, pay attention to any leaks, wear and tear, or issues and report them so they can be repaired or replaced.



Install right side green circuit (labeled B on manifold) first.

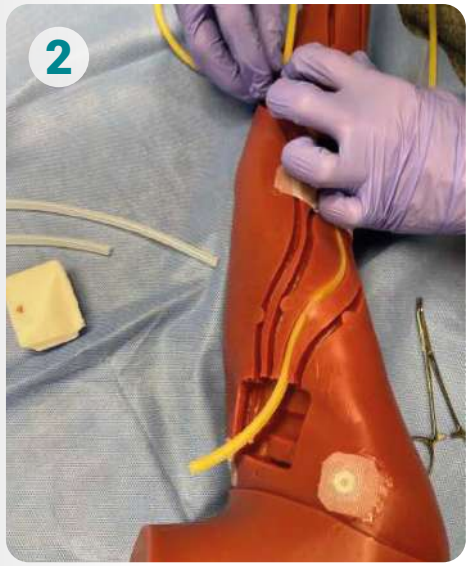
Red circuit (labeled A on manifold) can be installed in no particular order (left vs right) after green circuit is installed.

IMPORTANT:
Pass right-side green circuit (labeled B on manifold) under mesh to begin installation.

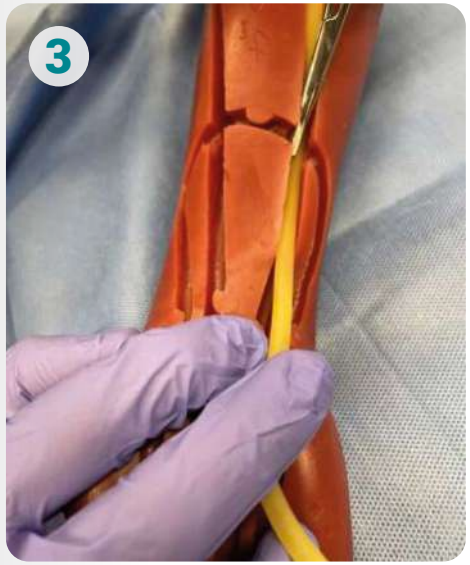


Use curved hemostats or forceps to thread the right-side green circuit under the mesh.

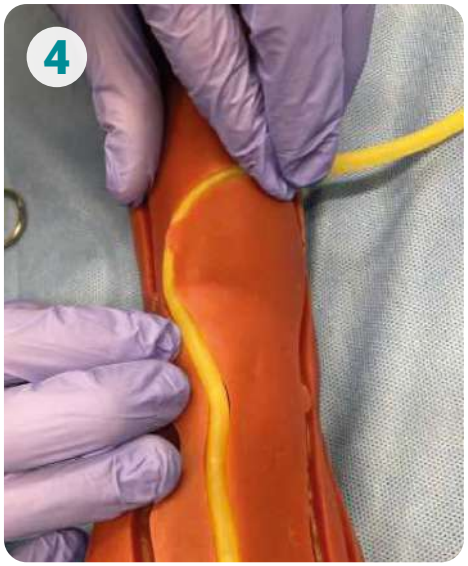
Placing the vein



Gently pull enough through to reach well-past manifold and seat tubing into channels.



Continue up the wrist ensuring the tubing isn‘t overly stretched within the channels. Once at the first intersection, use forceps to seat tubing at the base of its channel. This is to ensure enough room for circuit A (Red) to pass over later.

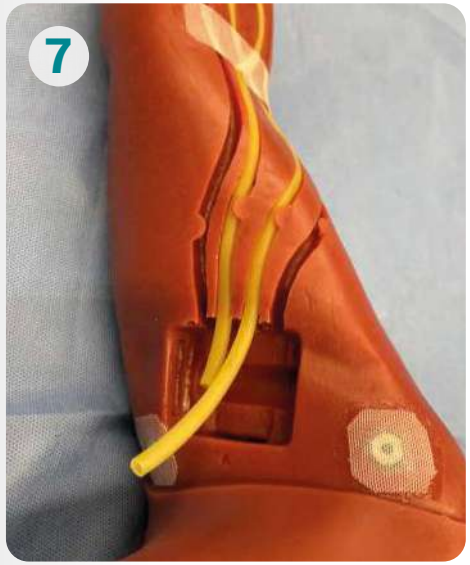


Continue seating the tubing over the hand. Be sure to seat tubing under retention flaps.

Once at the second intersection, once again seat tubing at the base of channel.

Placing the vein

When you arrive back at the antecubital region, use forceps to thread tubing OVER right side circuit B.



Finish seating circuit B. You should have enough tubing to extend past where the manifold will be installed.

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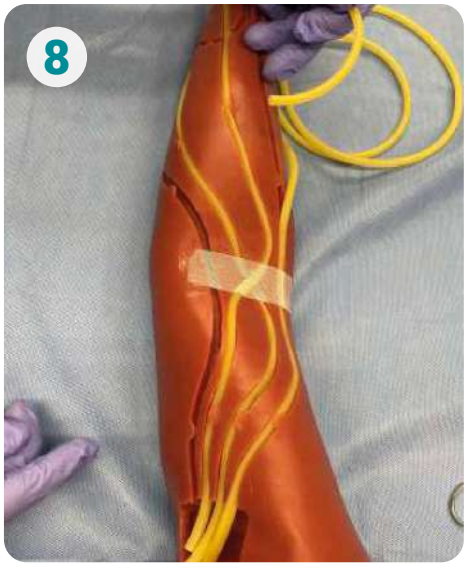
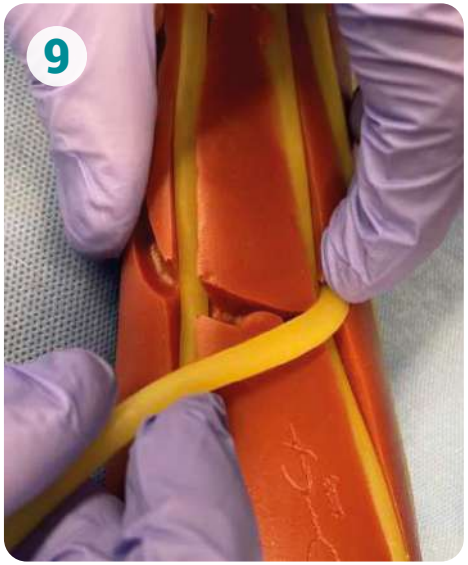


Begin installing circuit A, marked red in diagram. Thread tubing through fabric with hemostats. You may choose to start at either the left or right side, as this circuit does not cross over itself.



When you arrive at first intersection, pass tubing over previously installed circuit B.

Placing the vein

Use forceps to thread tubing through the antecubital fabric. You should have tubing extending beyond where manifold will be installed.

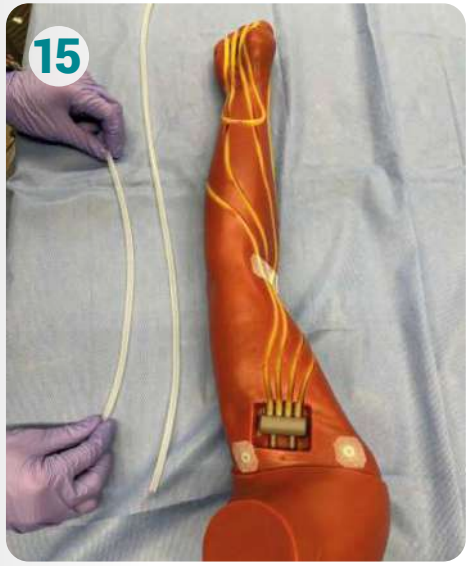
Insert manifold behind tubing ends.

Cut excess tubing where manifold arms meet manifold body shown here.

Press tubing ends onto corresponding manifold arms.

Placing the vein

Reseat manifold and tubing into corresponding channels.



Identify clear inlet and outlet tubing.

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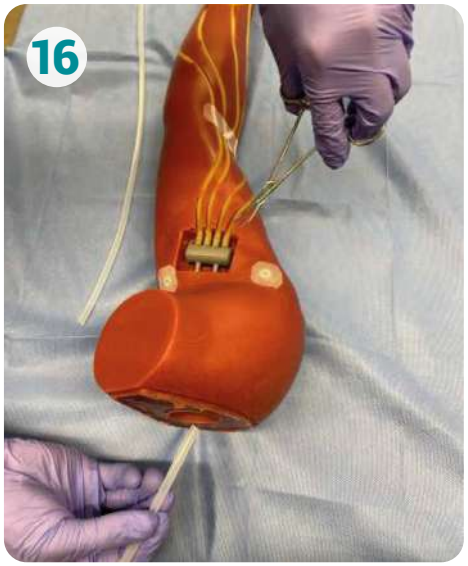
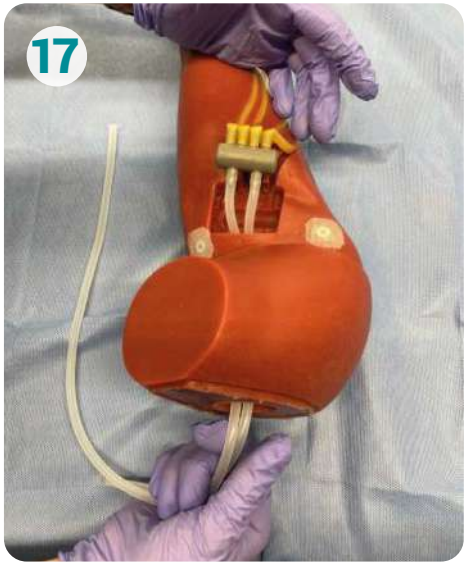


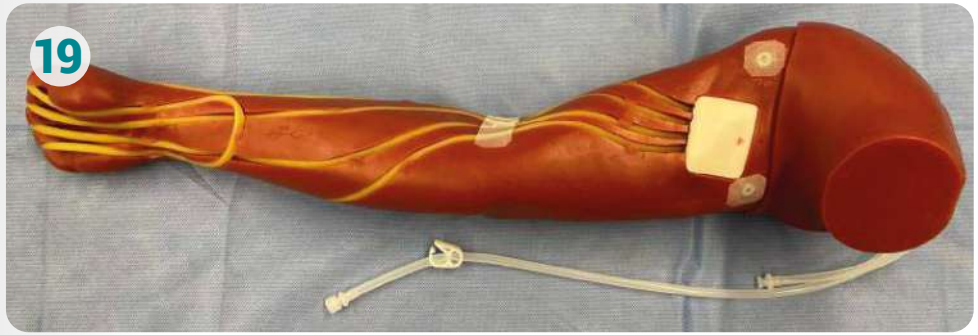
Thread both lengths of tubing through shoulder channel with forceps.



Install tubing onto the 2 inlet/ outlet arms of manifold in no particular order. Pull slack from system and reseat all tubing and the manifold.

Placing the vein

Install manifold plug so arrows are pointing at each other as shown.



The replacement hoses come with all connections/stopcocks. Photo may vary.

Advantages

IV arms are workhorses of any simulation center. Ours were designed from the ground up to feel, look, and perform better by solving the headaches I'm sure you're familiar with.

- Frustrating skin removal
  Our durable, yet soft silicone sleeves are a breeze to service! When it's time to replace the vessels, painlessly remove the skin within seconds.
- Fiddly vessel installation
  Vessels stay put when removing/installing skin! Gone are the days of tubing getting kinked and misaligned. Retention tabs are built-in to the design of the trainer's core to keep vessels in their place during use and maintenance.
- Air bubbles are the worst!
  Air pockets lead to insufficient flashback which can leave a learner thinking they have failed, despite doing everything correctly. Our arms take <15 seconds to prime and purge all air bubbles from the system!
- I'm seeing a vein – why can't I stick it?
  While other arms may approach aesthetic realism with seemingly convincing veins on the skin surface, their underlying network of tubing doesn't correspond. This leads to learners feeling as though they failed when they don't get a flashback, because they are not hitting an underlying "vessel". We took great lengths to ensure the surface topography corresponds to a "stickable" vessel underneath. In other words, if you can see a vein and/or palpate a vein, you can stick that vein and achieve blood return!
- Limited Skin Tones
  You do what you do to make a simulation experience as real as possible. This is accomplished primarily by having the students perform the task and not just pretend to do it. The truer to life, the more real the experience - the more real the experience, the greater the transfer of knowledge. Our injection arm is available in different skin tones, light and dark skin as standard, but we are happy to customize this to your needs on request, please contact us.

Spare Parts

	Replacement skin, light skin color **Ref.no.: 7710A**
	Replacement veins **Ref.no.: 7710B**
	Vein manifold **Ref.no.: 7710C**
	Blood bag with tubing **Ref.no.: 7710D**
	Carry bag **Ref.no.: 7710F**
	Replacement skin, dark skin color **Ref.no.: 7711A**

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Erler-Zimmer GmbH & Co.KG
Hauptstraße 27 · 77886 Lauf · Germany
T (+49) 7841 / 67191-0 · F (+49) 7841 / 67191-99
info@erler-zimmer.de

www.erler-zimmer.de