APPLICATION





Place HemaShock® on toes and start to roll it with handles



Roll the device up

to the groin



Record the application time and when the device should be removed



VALUE

- HemaShock[®] is applied in 10 seconds
- Shifts approximately 500cc of the patient's blood from each leg to the vital organs
- No need for blood infusions
- Bridge to ECMO
- Extends the "Golden Hour"
- One size product
- Minimal training to apply
- Easy to carry in ambulances, helicopters and hospital carts

Color	Orange		
Patient's Systolic	<150 mm Hg		
Blood Pressure Limit			
Length	< 120 cm		
Min Circumference	30 cm		
Max Circumference	85 cm		

TECHNICAL DATA

REPRESENTATIVE INFORMATION

			ORD
			HemaS
			HemaS

ORDER NOW from Orders@HemaShock.com					
Product	Cat#	Units/ Case*			
HemaShock [®] EMS Adult	PRHS-EM-01A	5			
HemaShock [®] EMS Upper Extremity	PRHS-UE-01A	5			

*HemaShock[®] is sold per case

www.HemaShock.com

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HemaShock® Emergency Auto Transfusion



HemaShock[®] shifts approximately 1 liter of blood from the legs to the core and blocks its re-entry. The use of **HemaShock**[®] is safe for up to 2 hours and the technology has been used in orthopedics in over 2 million cases with outstanding safety record. In **Shock**, the legs can be used as a <Personal Blood Bank= to guickly auto-transfuse fresh blood with normal clotting factors and oxygen-carrying capacity. In **Cardiac Arrest HemaShock**[®] acts as a selective mechanical vasoconstrictor thus increasing both pre- and after- loads and the chances of ROSC.

Basic physiological principle

Normal Hemodynamic **Status**

Hypovolemic or Distributive Shock or Pump Arrest

Auto-transfusion with HemaShock[®]



ANIMAL STUDIES

Auto-transfusion tourniquet in Treatment of Porcine Hemorrhagic Shock

Animals bled to severe shock. Those treated HemaShock[®] with survived longer with higher Pulse Pressure and end-tidal CO2.



A-TT tourniquet-assisted cardiopulmonary resuscitation augments myocardial perfusion in a porcine model of cardiac arrest



Research shows: Tourniquet-assisted CPR increases coronary perfusion pressure, cerebral blood flow and end-tidal CO2 during resuscitation.



VOLUNTEER STUDIES

Auto-Transfusion Tourniquet (A-TT) in Treatment of Hemorrhagic Shock - Retrospective review of first 10 cases



A-TT was placed on one leg with immediate uterine contraction, hemostasis, and hemodynamic stabilization.

The patient was discharged in good condition

Effects of arterial (HemaShock®) and venous (ZOEX) legs compression on mean blood pressure and cardiac output in normal volunteers. Note stronger effect of HemaShock[®]. MAP [mm Hg]



HemaShock[®] in Cardiac Arrest

Auto-Transfusion:

- Blood is shifted from the legs to the core
- Venous return (pre-load) is increased
- Larger heart chambers and chest compression efficacy with higher systolic blood pressure

Mechanical vasoconstriction

HemaShock[®] stops the blood flow to the legs and increases peripheral resistance (after-load). Cardiac output is directed to the essential organs. Diastolic pressure increases, substantially higher coronary perfusion pressure.

7 of 10 witnessed Cardiac Arrest patients had ROSC within 4 minutes of HemaShock® placement. One was discharged in good neurological status.



When applied during CPR, HemaShock[®] is immediately placed on both legs while chest compression and other ACLS treatments are provided. When stable ROSC is observed. HemaShock[®] is removed in phases.

Contraindications

Do not use **HemaShock**[®] on patients with Deep Vein Thrombosis and on patients with hypothermia.

WARNING

Do not leave **HemaShock**[®] on legs for more than 120 minutes.

HemaShock[®] in Hemorrhagic Shock

Auto-transfusion brings the patient's own fresh blood from the legs to the core:

- Ouickly (500 cc from each legs in 15 seconds)
- Correct blood type (not O-) Normal clotting factors (no citrate or other anticoagulants)
- Normal Oxygen carrying capacity;
- Normal temperature (not cold, normal P50)

Gunshot wound with IVC laceration, and hemorrhagic shock. HemaShock[®] helped save him.



When the patient is in severe shock (systolic BP less than 80 mmHg), first - apply one HemaShock[®] unit. A second HemaShock[®] is applied if systolic BP is still below 80 mmHg. Once the patient receives definitive care in a medically controlled environment. HemaShock[®] can be removed in phases.

