What You Need to Stop the Bleed®: A Resource Guide
# TABLE OF CONTENTS

1. **Introduction**

2. **About Stop the Bleed®**
   2. Background
   3. Statistics and Making a Case for Stop the Bleed® & Bleeding Control Kit Implementation
   4. Bleeding Control Kits by Sector
   4. Industrial and Corporate
   6. K-12 and Higher Education
   7. Public Access/Public Venue
   8. Private/Personal Use

9. **Funding Your Public Access Bleeding Control Kits**

10. **First Aid, CPR, and Stop the Bleed® Training**
    11. How to Use Your Bleeding Control Kit
    12. How to Recognize Life-Threatening Bleeding
    13. Compression is Critical
    14. The Difference Between Curaplex Stop the Bleed® Kits, Curaplex Bleeding Control Kits, and Standard First Aid Kits

14. **What’s Inside?**
    14. Curaplex Stop the Bleed® Kits
    14. Curaplex Bleeding Control Kits
INTRODUCTION

Did you know that up to 20% of trauma-related deaths in the United States could be prevented? That’s approximately 30,000 lives that could be saved with proper training, equipment, and product availability! With this information in mind, we decided to develop a guide to help our customers, educational partners, and community members to better understand traumatic bleeding and the importance of bleeding control kits such as Curaplex® Stop the Bleed® Kits and Curaplex® Bleeding Control Kits.

Uncontrolled bleeding is the #1 cause of preventable death from trauma.*

Over the past couple of years, the number of active shooter events, school shootings, and mass casualty incidents at churches, concerts, and other public venues have increased dramatically.

These tragedies have changed what being a “first responder” means in society. “Now, the first responder is you or me. Now that first responders can also be laypeople or bystanders, we need to evolve the kinds of products we use and we need to put these products into the hands of the people who are truly there first,” said Sarnova’s Emergency Preparedness Product Manager, Danny Roberts. “Depending on how far away medical help is, that layperson can be the difference between someone living or dying. If you have the tools, materials, and training to stop bleeding, you can save someone’s life.”

We hope that you’ll find this publication, What You Need to Stop the Bleed®: A Buyer’s Guide, informative as you develop or upgrade your community protocols and emergency preparedness plans.

In this guide, we’ll share statistics, discuss the importance of Stop the Bleed® Kits, and delve into how these advanced trauma kits differ from a traditional first aid kit. We’ll also share the contents of basic, intermediate, and advanced Curaplex Stop the Bleed® Kits and our proprietary bleeding control kits and suggest a few best practices for incorporating these life-saving kits into your organization’s emergency readiness program.

We appreciate your commitment to safety and the well-being of your team!

— The Emergency Medical Products Team

1. The National Academies of Science, Engineering, and Medicine, retrieved January 24, 2019.

* See Page 3 Statistics Citations

ABOUT US:
Emergency Medical Products (EMP) is dedicated to helping those who save and improve patient lives. For nearly 50 years, we’ve provided medical supplies and equipment to healthcare professionals and first responders. We are continually expanding our product offering to better meet the needs of fire and EMS, law enforcement, K-12 schools, colleges and universities, hospitals, physician offices, businesses, parks and more.
“The landscape of the first responder is changing. People need to get out of the mindset that the first responder is a police officer, EMT, or firefighter. If you’re there, you’re the first responder.”

- Danny Roberts
  Sarnova Emergency Preparedness Product Manager

Stop the Bleed® is a national awareness campaign and a call to action started by the White House and the Department of Homeland Security in 2015. The Stop the Bleed® program is intended to cultivate grassroots efforts that encourage bystanders to become trained, equipped, and empowered to help in a bleeding emergency before professional help arrives. Stop the Bleed® Kits and other specialized bleeding control kits can be used by both trained professionals and bystanders.

No matter how quickly professional emergency medical technicians arrive, in the event of a mass shooting, workplace violence, traumatic injury, or motor vehicle crash, bystanders will be the first responders on the scene. As a result, easy-to-use public access bleeding control kits are increasingly important and are a necessary component of any comprehensive emergency preparedness plan.

With access to the right products and the right training, anyone can help stabilize a victim and improve their chances of survival.

Just like having a publically accessible AED, bleeding control kits are an important addition to workplace and public access emergency readiness programs. For households in rural, remote, or hard-to-reach locations, they make great additions to personal-use emergency kits.

Death from loss of blood can occur in less than 5 minutes.*

**STATISTICS**

As you establish your bleeding control program, developing a strong case for why your organization needs a trauma kit is important. It’s easy and comforting to think, “Oh, that’s never happened in our company” or “That would never happen here,” but who would ever have imagined that in 2018, 340 mass shootings occurred in America² or that in 2017 more than 37,000 people would die in motor vehicle crashes³ and that more than 5,000 fatal injuries would be reported in the workplace?⁴

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2. Gunviolencarchive.org, Past Summaries and Ledgers, retrieved 1/24/19.

* See Page 3 Statistics Citations
BLEEDING CONTROL KITS SAVE LIVES

“The benefit of these kits is that they really are easy to use and they work. Honestly, if you’re going to need these kits, you’re going to need more than one. There are very few incidents of isolated shootings.”

- Chandler Perdue, MSN, RN, CEN, AEMT
  Flight Nurse, Vanderbilt LifeFlight

Here’s a look at a few key trauma statistics:

• Victims of severe bleeding can die within 5-10 minutes.5

• Uncontrolled bleeding is the number one cause of preventable death from trauma.6

• Approximately 5 million people die every year around the world from accidental and non-accidental trauma.7

• 340 mass shootings occurred in America in 2018.

• Trauma is the leading cause of death for Americans 45 and younger.

• Trauma is the fourth leading cause of death overall for all ages.8

• More than 60,000 American die each year from hemorrhagic shock.9

• Hemorrhagic shock is responsible for 1.9 million deaths worldwide.

• 37,133 Americans died in motor vehicle crashes in 2017.

• 5,147 fatal injuries occurred in the workplace in 2017.

• Up to 20% of trauma-related deaths in the United States could have been prevented.10

• Traumatic injuries cost an estimated $670 billion in medical expenses and lost productivity in 2014.11

• Because of better wound care, between 2005 and 2013, the percentage of wounded service members who died of their injuries in Afghanistan decreased by nearly half.12

• In the United States, 15,332 instructors have trained 124,350 people to Stop the Bleed13.
STOP THE BLEED® KITS AND BLEEDING CONTROL KITS BY SECTOR

“We’re in the beginning stages of adopting these kits as a standard practice. With that comes some skepticism and fear and maybe even some conformity. It’s important to know why you’re purchasing bleeding control kits, what you hope to accomplish with them, and how many people may need them,” said Danny Roberts, Emergency Preparedness Product Manager for Sarnova. “I view these kits as a type of insurance. We don’t like paying for insurance, but we need it. I sincerely hope that every one of these kits that we sell are never used. It’s still worth the investment. These kits prevent the loss of life.”

How many kits do you need? That’s a hard question to answer and at this time, there are no state or federal guidelines to mandate the number of bleeding control kits employers or organizations should have available. “It’s better to have something than nothing at all, but you need to consider what’s appropriate for a given situation. In public environments you have 100 people, having at least 10% of a given number is a good place to start,” said Roberts.

Industrial and Corporate

On-the-job traumatic injuries are incredibly commonplace and have stark human and economic ramifications. In the workplace, life-threatening bleeding can be caused by motor vehicle, construction, assembly line, or other industrial accidents.

Workplace violence presents another potential bleeding risk.

“Workplace violence is the act or threat of violence, ranging from verbal abuse to physical assaults directed toward persons at work or on duty. The impact of workplace violence can range from psychological issues to physical injury, or even death. Violence can occur in any workplace and among any type of worker, but the risk for fatal violence is greater for workers in sales, protective services, and transportation, while the risk for non-fatal violence resulting in days away from work is greatest for healthcare and social assistance workers.”

Most recent traumatic injury data shows:

- 26% of the 892,270 non-fatal work injuries resulting in days away from work were related to slips, trips, and falls.
- In 2016, 1,252 U.S. workers died in work-related crashes involving motor vehicles (24% of all deaths).
- About 10% of reported fatal workplace injuries in the U.S. were the result of workplace violence.
- More than 230,000 injuries due to contact with objects and equipment were so severe that they resulted in time away from work.

The risk of traumatic injury is especially high for young workers. The CDC reports that traumatic injuries are often the result of hazards present in the workplace such as sharp knives in restaurant kitchens or slippery floors in recently cleaned restrooms. Limited work experience and lack of mandated safety training are also factors. Workers of middle and high school age are especially vulnerable to workplace injuries.

- In 2016, there were about 19.3 million workers under the age of 24. These workers represented 13% of the total workforce. 19
- In 2015, 403 workers under the age of 24 died from work-related injuries. 20
- In 2015, there were 24 deaths to workers under 18 years of age. 21
- In 2015, the incidence rate for non-fatal injuries for workers of ages 16-19 was 110.5 per 10,000 full-time employees (FTE) and 98.3 per 10,000 FTE for workers, ages 20–24. 22
- In 2014, the rate of work-related injuries treated in emergency departments for workers of ages 15-19 was 2.18 times greater than the rate for workers 25 years of age and older. In the same year, the rate of work-related injuries treated in emergency departments for workers of ages 20-24 was 1.76 times greater than the rate for workers 25 years of age and older. 23

**Best Practices and Recommendations**

- Clearly communicate emergency protocols and procedures.
- Install clearly-marked wall-mounted trauma kits next to publically accessible AED cabinets.
- Equip company-owned vehicles with first aid and bleeding control kits.
- Multiple and readily accessible bleeding control kits are essential for corporate environments, industrial environments, warehouses, factories, and construction worksites.
- All commercial kitchens should be equipped with first aid and bleeding control kits.
- Require employees to attend company-sponsored first aid and Stop the Bleed® training sessions.
- Require building security team members to carry bleeding control kits and receive Stop the Bleed®, CPR, AED, and first aid training.
- Mandate industry-specific safety training and regular intervals.

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19. 20. 21. 22. 23. Centers for Disease Control, “Young Worker Safety And Health.”
K-12 and Higher Education

“School shootings are, sadly, another massive problem in our country. If you have a school shooting, there are going to be tons of preventable deaths. If someone is shot in an extremity, having a Stop the Bleed® Kit available will be essential. It’s basic, basic wound care. If you can put a tourniquet on a wound, use pressure, or apply medicine-impregnated gauze, it’s going to save lives. It’s about doing the greatest good for the greatest number of people.”

- Chandler Perdue, MSN, RN, CEN, AEMT
Flight Nurse, Vanderbilt LifeFlight

According to an article published in Education Week, 114 people were killed or injured in school shootings during 201824 and the Center for Homeland Defense and Security found that 2018 was, by far, the most violent year on record for American schools, with nearly 100 reported incidences of gun violence.25

Mass casualty incidents such as mass shootings are a harrowing fact of life in American schools. Uncontrolled bleeding is responsible for 35% of pre-hospital trauma deaths and 40% of deaths within the first 24 hours26. The Stop the Bleed® and bleeding control kits provide teachers and staff members with the products they need to save lives.

Best Practices and Recommendations

- Clearly communicate emergency protocols and procedures.
- Install clearly-marked wall-mounted trauma kits next to publically accessible AED cabinets.
- Reserve teacher in-service and planning days each year for first aid and Stop the Bleed® training and refresher courses.
- Require school security guards to carry bleeding control kits and receive Stop the Bleed®, CPR, AED, and first aid training.
- Equip all school vehicles and buses with first aid and bleeding control kits.
- Install multiple bleeding control kits in gymnasiums, cafeterias, main office, library, and other popular common spaces.

Image source: Education Week

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<th>24</th>
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<td>People killed or injured in a school shooting</td>
<td>People killed</td>
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<td>79</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>People injured</td>
<td>Students killed</td>
<td>School employees or other adults killed</td>
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26. Mayo Clinic, “School district staff learns bleeding control techniques.”
Public Access/Public Venues

The U.S. has reported a staggeringly high number of active and mass shooter incidents when compared to other developed nations. In 2016, well before the Marjory Stoneman Douglas High School in Parkland, Florida and the mass shooting at the Harvest Music Festival in Las Vegas, the U.S. National Library of Medicine of the National Institutes of Health released a study that found the U.S. had more public mass shootings than any other of the 170 nations investigated.27

The shooting in Vegas, which left 59 dead and injured 527 more, puts the importance of bleeding control kits into sharp focus. 124 of the 180 individuals injured arrived at the hospital’s Level Two trauma center with single and multiple gunshot wounds.28

“In response to increasing violent attacks, the Stop the Bleed® campaign recommends that everyone have access to both personal and public bleeding-control kits. There are currently no guidelines about how many bleeding victims public sites should be equipped to treat during a mass casualty incident.

We conducted a retrospective review of intentional mass casualty incidents, including shootings, stabbings, vehicle attacks, and bombings, to determine the typical number of people who might benefit from immediate hemorrhage control by a bystander before professional medical help arrives. On the basis of our analysis, recommend that planners at public venues consider equipping their sites with supplies to treat a minimum of 20 bleeding victims during an intentional mass incident.”29

Best Practices and Recommendations

- Clearly communicate emergency protocols and procedures.
- Install clearly-marked wall-mounted trauma kits next to publically accessible AED cabinets.
- Easy-to-follow print/infographic instructions for public use.
- Organize well-publicized community outreach campaigns to promote Stop the Bleed®, CPR, AED, and first aid training.
- Equip all municipal vehicles, buses, and buildings with first aid and bleeding control kits.
- Equip community gathering spaces, outdoor music venues, community centers, libraries, and other popular public spaces with bleeding control kits.
- Require security guards and key city officials to carry bleeding control kits and receive Stop the Bleed®, CPR, AED, and first aid training.

Private/Personal

Whether you’re working on a remote corner of a Texas ranch or you’re residing in an exclusive penthouse apartment in traffic-jammed New York City, bleeding control kits can stop bleeding until highly trained emergency professionals arrive on the scene.

Life-threatening bleeding can result from everyday emergencies including vehicle crashes, incidents involving farming equipment, accidental injuries from natural disasters, DIY disasters, and kitchen mishaps as well as from inflicted injuries such as an accidental or intentional gunshot wound.

Life-threatening bleeding can result from everyday emergencies.

Best Practices and Recommendations

- Develop and communicate emergency readiness plans.
- Equip farming equipment, outbuildings, homes, and vehicles with first aid and bleeding control kits.
- Become Stop the Bleed®, CPR, AED, and first aid certified.
- Easy-to-follow print/infographic instructions for public use.
If you’re building a bleeding control program for an educational institution, community organization, or nonprofit organization, you may be able to secure grant funding to cover a portion of the cost. When it comes to finding funding for your emergency preparedness and bleeding control programming, the most common types of grants include:

**Project-Based Grants**
A project-based grant can be used only for a specific project or program. These non-capital, designated grants are made available to individuals, organizations, schools, or state and local governments and are awarded on the basis of merit. It may be helpful to think of project-based grants as you would a scholarship competition: the most worthy applicants receive funding, while others may not receive any funding at all.

**Matching Grants**
A matching grant is one in which the applicant (grantee) pledges to raise a set amount of funds that will be matched by the donor. Matching grants can be an effective way to fund (relatively) small projects such as the purchase of a single AED or bleeding control kits. If your organization does not have 501(c)(3) status but you have a circle of ardent supporters, this may be a great option for you. Fundraisers, bake sales, car washes, and special events are all effective ways to raise matching funds.

**Employee Match**
Companies with employee matching grant programs encourage employees to donate to a cause of their choice, and the employer pledges to match their contribution. Maximize your earning potential by encouraging your community members and stakeholders to find out if their employers offer employee match programs.

**In-Kind Donations**
In-Kind donations, also known as gifts in kind, are a form of charitable giving in which donors provide goods or services to an organization rather than money. In this instance, an organization would receive bleeding control kits in lieu of a financial gift.

**Crowdfunding**
In 2015, an estimated $34 billion was raised by crowdfunding worldwide!³⁰

Crowdfunding is the practice of funding a project or venture (such as your AED and bleeding control programming and related training) by raising small amounts of money from a large number of people who may or may not live within your community or utilize your services. Typically, funds are raised via the Internet. Popular crowdfunding sources include GoFundMe, Kickstarter, Double the Donation, CauseVox, and CrowdRise.

³⁰ wikipedia.org/wiki/Crowdfunding
When you take CPR/First Aid training courses, you’ll learn invaluable CPR techniques and basic first aid skills that cover common scenarios including bleeding, burns, poisoning, shock, and respiratory emergencies. Stop the Bleed® training, however, focuses in on how to prevent death due to trauma-induced bleeding.

In this era of active shooters and mass shootings, traumatic bleeding control training is increasingly important.

In a recent news release issued by the American College of Surgeons, many Americans would be interested in “taking a bleeding control course that would empower them to immediately assist victims of active shooter and other intentional mass casualty events... Furthermore, the vast majority of civilians support training and equipping police officers to perform severe bleeding control on victims as soon as possible rather than wait for emergency medical services (EMS) personnel to arrive on the scene. There’s also strong public support for putting bleeding control kits in public places where large crowds gather, similar to the way that automatic external defibrillators (AEDs) are now found in airports and shopping malls for use by responders who have undergone cardiopulmonary resuscitation (CPR) training.”

Although special training is not required to use a Stop the Bleed® or a bleeding control kit, this training goes beyond standard first aid training and teaches laypeople and bystanders how to assess a scene for safety, find the source of bleeding, apply appropriate bleeding control measures, use a tourniquet effectively, and pack large wounds with hemostatic dressings.

Stop the Bleed® Training
First Aid/CPR Training

How to Use Your Bleeding Control Kit

“Remember, it’s their emergency, not yours,” said Lt. Mike McCutcheon of the Brentwood Fire and Rescue Department during a training session conducted at Cardio Partners in 2018.

“If they’re still conscious, the likelihood of survival is good.”

Remain calm and rely on your training in the event of an emergency. Before you do anything, take stock of the situation and make sure you’re safe and are not in danger. If necessary, move yourself and the injured person to safety.

Once you’ve ensured your personal safety, call 911 or ask another bystander to do so. Next, put on gloves (if possible) and offer assistance to the victim or victims. In many instances, emergency services will remain on the phone with you and provide instruction and support until professional help arrives.

Please note: the following section contains general information about how to use your bleeding control kit. This information is not medical advice and should not be treated as such. What follows is not a substitute for hands-on training and certification provided by a trained professional.

1. Ensure your own safety
2. Call 911
3. Find the source of the bleeding
4. Remove clothing from around the wound so you can clearly see it
5. Look for and identify life-threatening bleeding
6. Apply compression
How to Recognize Life-Threatening Bleeding

Worldwide, millions of people die from hemorrhaging each year. In many cases, the source of bleeding is visible, and with the right training and products, bleeding can be slowed until the arrival of emergency medical professionals.

Injuries caused by crushing, motor vehicle crashes, workplace accidents, gunshot wounds, stab or puncture wounds from a needle or knife, hematomas, cuts or abrasions to internal organs, severe cuts or lacerations to the skin, or blunt force trauma can all cause life-threatening bleeding. If the bleeding cannot be controlled by putting pressure on the wound, then it’s time to break out the bleeding control kit.

Although the initial injury may be incredibly painful, bleeding to death may not be. As blood loss increases, the body begins to go into hypovolemic or hemorrhagic shock. Hemorrhagic shock occurs when the body loses a lot of blood (about 20% of your body’s blood supply) very quickly, resulting in inadequate blood delivery on the cellular level.32

Symptoms of hemorrhagic shock or life-threatening bleeding include:

- Blood spurting or pumping from a wound
- Wounds that will not stop bleeding
- Complete or partial amputation
- Blood that is pooling on the ground
- Blood-soaked bandages
- Clothing that is saturated with blood
- Dizziness
- Sweating
- Fatigue
- Nausea
- Headache
- Rapid heartbeat
- Quick, shallow breathing
- Confusion
- Low blood pressure
- Loss of consciousness

Compression is Critical

There are a number of different ways to stop traumatic bleeding and they all have one thing in common: compressing a blood vessel to stop the bleeding.

If you don’t have a bleeding control kit, cover the wound with a clean cloth (a shirt or towel, for example) and apply firm pressure using both hands. Venous bleeding is often characterized by blood that trickles or oozes from the site of the wound. Most often these types of injuries can be treated with pressure, compression bandages, or QuikClot Gauze. If the victim is conscious and alert, have them help themselves by elevating and applying pressure while you assess the situation, and if possible, put on gloves.

If you do have a bleeding control kit and the bleeding is coming from an arm or leg, apply the tourniquet 2-3 inches above the wound. Do not apply the tourniquet to a joint; place it above the joint if necessary. You’ll know you’ve successfully applied the tourniquet when there’s no pulse in the affected limb and the bleeding has stopped. It’s worth noting that a correctly applied tourniquet is extremely painful. If you’re able, label the tourniquet with the time it was applied. This allows emergency personnel to provide the best care possible.

If bleeding is coming from a junctional site (neck, shoulder, hips, or groin) pack or stuff the wound with gauze, bleeding control gauze (hemostatic gauze), or a clean cloth and apply pressure to help facilitate clotting.

Most bleeding control kits come with a tourniquet. Not all are created equally, however, and each has a different learning curve. It’s important to understand how to use the products in your kit and how to get the appropriate training.

“The product is one piece of the puzzle and the training is the other. If you have the training but you don’t have the kits, it’s not going to do much good! Products and training go together, hand in hand,” noted Danny Roberts, Sarnova Emergency Preparedness Product Manager.

The Office of Homeland Security and American College of Surgeons have provided a series of simple instructions to help bystanders respond quickly and appropriately in the event of moderate to severe bleeding. These simple steps can help stabilize victims until professional medical assistance arrives.

For more information and Stop the Bleed® resources, visit buyemp.com
WHAT’S THE DIFFERENCE BETWEEN STOP THE BLEED® & STANDARD FIRST AID KITS?

A good, compact first aid kit should include the contents needed to handle minor injuries (like scrapes and abrasions) through moderate, non-life threatening injuries such as sprains, frostbites, burns, and deeper cuts. They are not designed to stop life-threatening bleeding.

Trauma kits such as the Curaplex Bleeding Control Kits and Curaplex Stop the Bleed® Kits are compact kits designed to handle injuries caused by immediate life-threatening injuries and bleeding caused by gunshot wounds, stabbing, or crushing. These specialized kits were specifically developed to stop heavy bleeding.

Curaplex Stop the Bleed® Kits

**BASIC**
1. Permanent marker
2. Pair of gloves, latex free, large
3. Choice of tourniquet
4. Emergency bandage
5. Pair of trauma shears, 7.5"
6. Rolls of primed, compressed gauze dressing
7. Instructions for use sheet

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<td>STB001B-XT</td>
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**INTERMEDIATE** (Adds the following to Basic)
1. Pack H*VENT vented chest seals (2/pk)

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<td>STB002I-XT</td>
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**ADVANCED** (Adds the following to Basic)
1. Pack H*VENT vented chest seals (2/pk)
2. QuickClot combat gauze, 3” x 4 yds

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