



Emergency oxygen
when you need it.™

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This brief is one in a series of non-technical articles that discuss bystander delivery of oxygen during breathing emergencies

Everyday Heroes

A few days after Thanksgiving, Taj Nixon of Philadelphia was talking with friends at school when “Abruptly, he slumped sideways and fell to the floor. The 10th grader’s body began to shake,” the Philadelphia Inquirer reported.ⁱ Taj was experiencing a cardiac arrest and “The seizurelike symptoms were the result of a grim reality: His brain was being starved of oxygen.”

Fortunately, an automated external defibrillator (AED) was available to Taj’s teachers who were able to *restart* Taj’s normal heartbeat, so oxygen-rich blood flowed again to Taj’s brain. Taj is now on the challenging road to recovery from the lack of oxygen during his medical emergency.

Anyone Can be a Hero

When we hear the word “hero” we may immediately think about someone who is extraordinarily courageous. Heroes are often portrayed in comic books and movies as mythical characters with amazing powers.

For Taj, however, his true heroes were people who you would likely pass on the street without a second thought. Their heroism took the form of quick action to Taj’s medical emergency that saved his life.

Being ready to help others is the first step of every day heroism. Providing these unsung heroes with the tools that they need gives them an edge that can mean life or death.



Real heroes don't need superhuman powers or a color-coordinated costume

Making Tools Available to Everyday Heroes

The kind of emergency that almost killed Taj is not uncommon. Every year in the United States over 350,000 cardiac arrests and **over 7 million breathing emergencies** occur. Millions of AEDs have been purchased to help untrained bystanders assist victims of cardiac arrest, and ready access by first responders like Taj’s teachers is a key to successful saves.ⁱⁱ Unfortunately, public access to emergency oxygen has not been possible due to potential hazards of compressed oxygen cylindersⁱⁱⁱ and the need for training to use these cylinders. **Thanks to the R15 device, safe portable oxygen is now available for use by bystanders during medical emergencies.**

The Total Safety Solution Center

The development of novel technologies for bystander use – like the AED and the R15 device – enable the placement of comprehensive stations in public spaces where everyday heroes can access life-saving tools. A typical “hero station” would include an AED, R15 device, tourniquets, and first aid kit. Recent legislation as Pennsylvania has enacted^{iv} will enable stations to include Naloxone, a drug that bystanders can safely administer to reverses the effects of an opioid overdose. Likewise, legislation^v has widened public access to epinephrine, a drug to treat life-threatening allergic reactions to foods, insect stings and other exposure.

Stations can also be outfitted with alert technology that automatically calls 911 when activated and provides the 911 operator with the location of the activated station. Hands-free speakers would enable the 911 operator to communicate with the bystander who activated the station, advising them on life-saving steps to take until professional emergency medical services (EMS) arrive on scene.

All the data captured during a medical emergency may be stored and available to help EMS identify improvements to emergency response, and to ensure that the station is fully stocked and checked before the next medical emergency occurs.

The Role of Portable Emergency Oxygen

EMS will continue to be the backbone of support for medical emergencies outside of the hospital, assisting victims wherever an emergency occurs and quickly transporting the victim to a hospital for advance medical care. On average, however, it takes EMS about 15 minutes to arrive on scene during which time the victim of a breathing emergency may be heading to serious injury.

Everyday heroes with access to total safety solution centers can improve the chance of a victim’s survival during the first precious minutes when lack of oxygen to the brain can lead to long term disability or death.

To read more articles like this one please visit
<https://rapidoxygen.com/white-papers>

ⁱ This teenager’s heart stopped, Philadelphia Inquirer, 17 March 2019 [online 12Apr19>
<https://tinyurl.com/y3oohj4m>

ⁱⁱ Why lifesaving AED’s should not be kept in locked cabinets, Resuscitation and Medical Consultancy [online 15Apr19> <http://ramcltd.com/lifesaving-aeds-kept-locked-cabinets/>

ⁱⁱⁱ Oxygen (Compressed Gas) Cylinder Hazard Summary, U.S. Department of Veterans Affairs [online 15Apr19> <https://www.patientsafety.va.gov/professionals/hazards/oxygen.asp>

^{iv} Naloxone for Community Members in Pennsylvania, The Commonwealth Prevention Alliance Campaign to Stop Opiate Abuse, <http://pastop.org/naloxone-for-community-members-in-pennsylvania/>

^v Public Access to Epinephrine, Food Allergy Research and Education [online 29Apr19>
<https://www.foodallergy.org/public-access-to-epinephrine>