

# Time Critical Care

*Load and Go has  
Come and Gone!*



**Rob Pearson, NRP**

Community Rep-North Memorial Health  
Assistant Fire Chief-City of Maple Grove

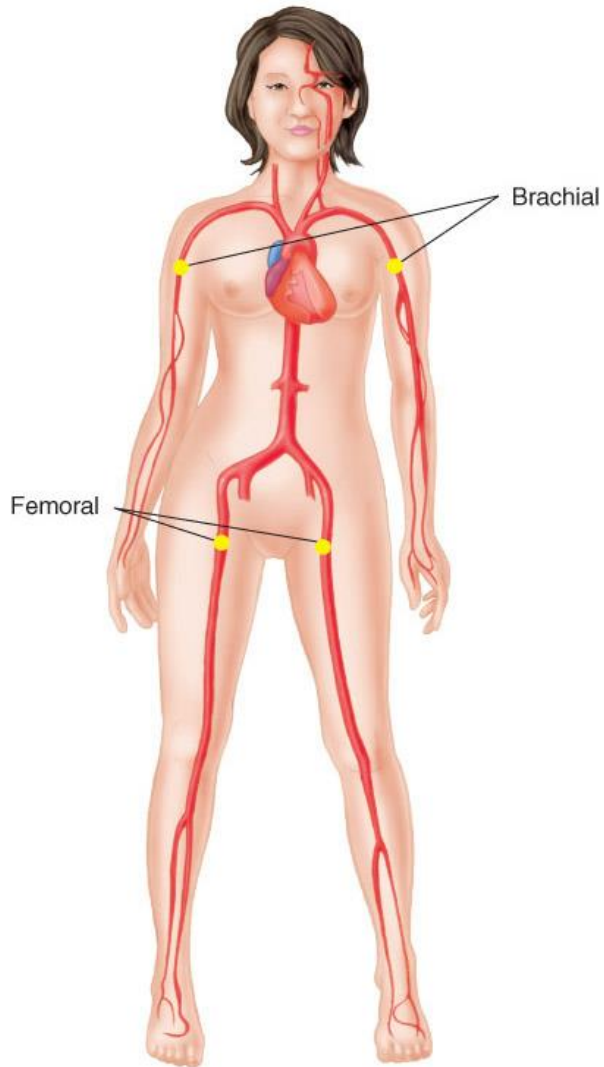
 **NORTH**  
MEMORIAL HEALTH



# Objectives

- Identify understand the importance of time sensitive patient care.
- To learn the effects of Adrenaline and Cortisol to the human body.
- To identify breathing techniques to better perform in stressful events.

# The **Art** of Hemorrhage Control



# The **Art** of Hemorrhage Control

- STOP THE BLEED!
- **PRESURE-PRESURE-PRESURE!**
- Ensure that the dressing occludes the artery. CLAMP!
- Wrap the bandage tightly enough to control bleeding with Elastic Wrap. SQUEEZE!
- Check frequently for active bleeding.
- Secure the bandaging so that it cannot slip.



# The **Science** of Stress Training!



- SIM Training.
- Active bleeding.
- Stressful environment.

# The set up!

1. You are on scene when you hear a loud explosion!
2. You have 1 patient and 1 firefighter to help you.
3. The pt is awake, yelling, and all injuries are visible.
4. You are responsible for all treatment decisions and the actions of your assistant.
5. You must initiate all care and you have all needed supplies in your bag.
6. This is real time and live. Do you have any questions?





**Our  
Brain is  
like**

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**Google**

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# Situational Awareness

*Situational Awareness is everything you have learned, experienced and believe **RIGHT NOW**, at this moment of time in these current conditions.*



# Why do we lose Situational Awareness?

- Confusion
- Complacency
- Fatigue
- Fixation
- Stress





# Experience!

- Great benefit if...
  - You do it correctly.
  - All the conditions are the same.
- If I'm a hammer, everything looks like a nail.
- Don't teach people the steps, teach them to THINK!
- Memos don't help!

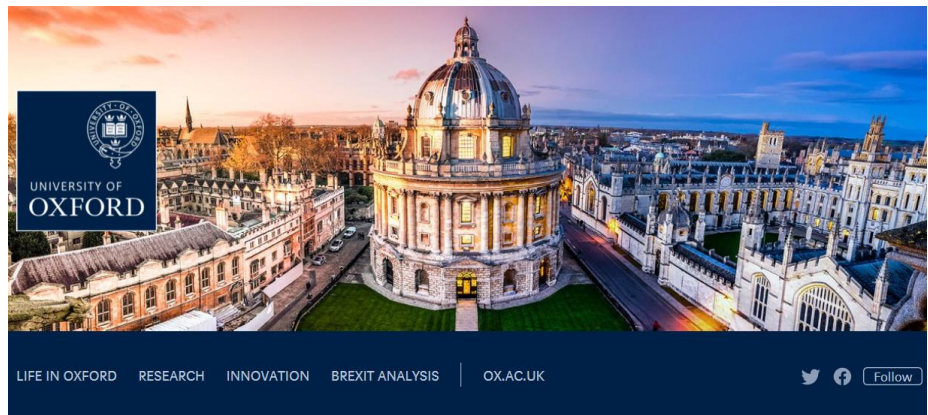
# Decision Making



# Time vs Stress!

- No Stress, lot's of time.
  - Seek expert consultation.
- Some Stress, not much time.
  - Knowledge and Experience.
- HIGH STRESS, NO TIME!
  - Reflex and Muscle Memory!





## The amazing phenomenon of muscle memory

The changes in the brain that allow you to learn new skills



Oxford University [Follow](#)

Dec 14, 2017 · 9 min read

If you live in Oxford, cycling is difficult to avoid. But as anyone new to the city can attest, hopping back on a saddle for the first time in years to weave through the narrow busy streets can be a daunting prospect. Luckily, the old saying holds true: it really is like learning to ride a bike. Many people will have experienced this phenomenon before, the amazing and long-lasting memory for skills that is often known as muscle memory.

*“Over time, with continual practice, actions as complicated as riding a bike, knitting, or even playing a tune on a musical instrument, can be performed almost automatically and without thought.”*





## From the Battlefield to our Neighborhoods: A Path to Zero Preventable Deaths

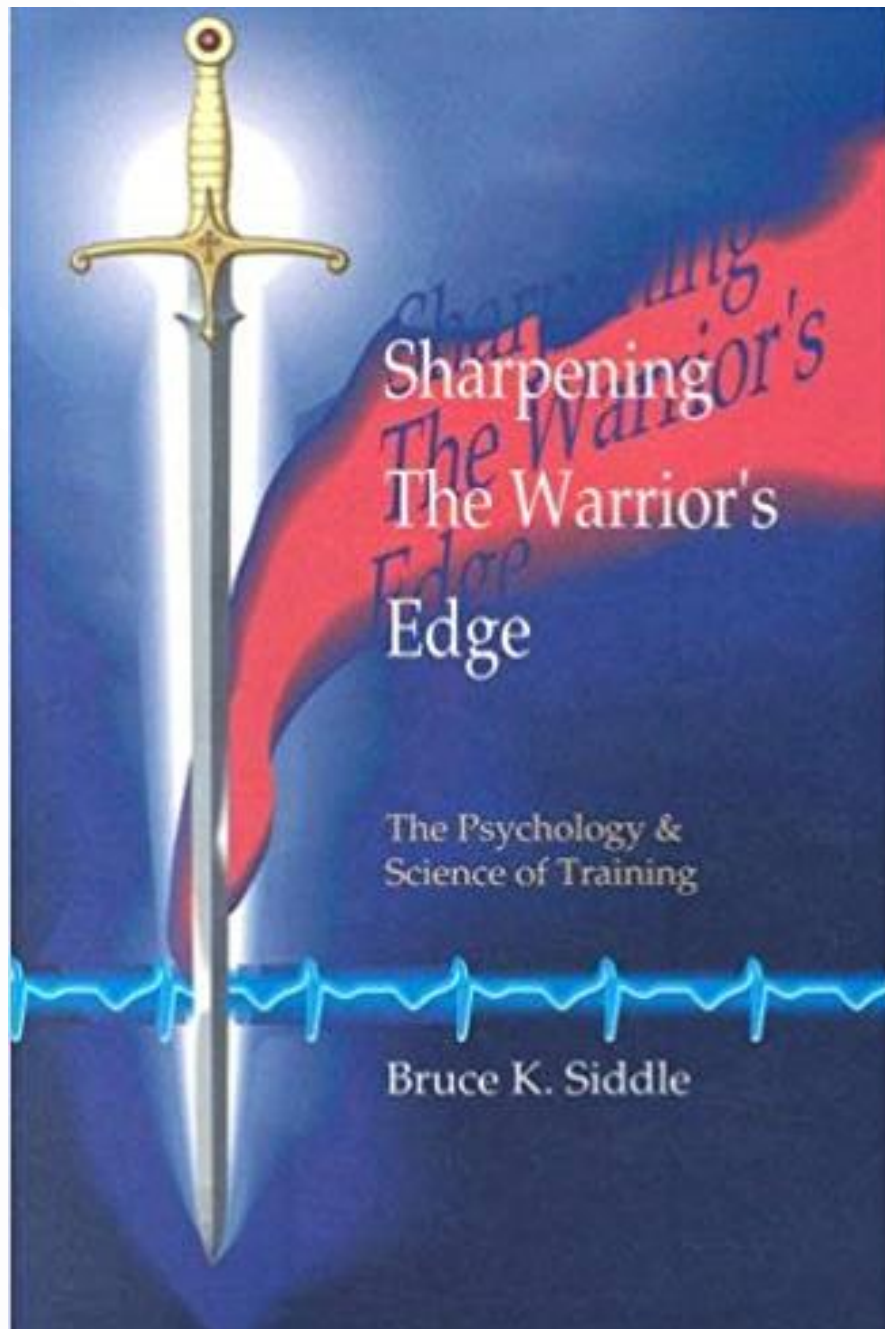


Andrew D. Fisher [Follow](#)  
Apr 23, 2017 · 8 min read

Right now, as a medical student, my life is spent in the books. But before beginning my journey in medical school, I was an Army Ranger and deploy eight times to combat. Let me share a story from one of those deployments, about Zak Graner, and how tourniquets saved his life.

On October 1, 2010 my unit was on a mission and we were using an Afghan house as a defensive position. We were heavily engaged with the enemy





*Sharpening the Warrior's Edge* pioneered "warrior science" in the modern age of combat and technology. Since knowledge is half the battle, this book is for those who want to prepare themselves for life threatening situations. Bruce Siddle does an excellent job of exploring reaction times, how motor skills play a role in the body's key survival mechanism (fight or flight), and the affects of stress on your performance.



# Situational Stress For Learning



**Time**



**Stress**



**Stimulation**





# How would you like your responder to show up for you?







**Be the best you can be,  
where you are!**



# Box Breathing Is the Navy SEAL Technique for Reducing Stress and Staying Calm



10,511



TAGS

[Breathing](#) [Stress](#)

With a motto like "The only easy day was yesterday," Navy SEALs are known for their toughness. But we should probably start lauding these combat-ready professionals for being zen masters, too. The group has a [quick, simple exercise](#) that anyone can use to reduce stress and remain calm, cool, and collected. Got 16 seconds to try it?

Did You Know

Ad

WE'LL MATCH A LOWER PRICE

An advertisement banner with a blue header "Did You Know" and a white background. It features a circular image of a person's face and a small image of a product. Below the images, the text "WE'LL MATCH A LOWER PRICE" is visible in white on a dark blue background.



## CARDIAC

Cardiovascular disease is the **number-one killer of firefighters** nationwide and is by far the leading cause of line-of-duty deaths in the fire service.

According to the International Association of Firefighters, more than **12 percent of all firefighters will develop heart disease** at some point in their lives.

Even young and healthy firefighters suffer from **hardened arteries and impaired heart function** after just **three hours of prolonged firefighting**, according to a 2010 study from the Illinois Fire Service Institute.



## CANCER

Firefighters experience **higher rates of certain types of diagnoses and cancer-related deaths** compared to the general U.S. population, according to a multi-year study from the CDC.

According to the National Institute for Occupational Safety and Health (NIOSH), firefighters have a **9 percent higher risk of being diagnosed with cancer** and a **14 percent higher risk of dying from cancer** than the general U.S. population.

The rate of line-of-duty **deaths from cancer-related illness is rapidly increasing and is on pace to overtake cardiac disease** as the leading killer of firefighters nationwide.



## EMOTIONAL WELLNESS

Those in the fire service experience **much higher rates of mental health challenges** than the general population – particularly in the areas of sleep disorders, depression, substance abuse, post-traumatic stress disorder and suicidal ideation/action.

Research suggests an association between the **number of years of duty in the fire service** and **higher levels of suicidal ideation/action**.

Most firefighters can recall at least **three traumatic events**, but the failure to talk about those memories creates a dangerous feedback loop.



# Objectives

- Understand the importance of time sensitive patient care.
  - **Load & Go does not mean drive fast.**
  - **Act, with good judgement and sharp skills.**
- Learn the effects of Adrenaline and cortisol to the human body.
  - **Stay in or get to your pre-frontal cortex.**
- Identify breathing techniques to better perform in stressful events.
  - **Repetitive muscle memory, BREATH and FEEL the Experience!**





**Rob.Pearson@NorthMemorial.com**

**763-581-9929**

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