

On the Knife's Edge: Exploring the History of Knives as Weapons and Defense Strategies against Them

A Thesis for Yondan by Lori O'Connell

Part 1: Exploring Knives as Weapons

History of Knives

Knives were one of the first tools used by people going back as far as 2.3 million years ago, to the pre-*homo sapiens* species' *homo habilis*, which used knife tools fashioned out of stone. Knives have had a place in human society ever since.¹

While the Bronze Age (3300 – 1300 BC) provided direction for the further use of metals, bronze was not a more desirable knife material than stone as it is too soft to provide a properly honed edge. Knife material changed radically when iron replaced bronze as a material around 1300 BC. Once the smelting of iron as a material for knife making appeared, stone blades in knives and weapons faded from all but the most primitive societies.²

Amazingly, pocket knives are far from a recent innovation. The earliest known appearance of pocket knives dates back to 600 – 500 BC. Though rare at the time, they were made in the Roman period with bone handles. For most of history, knives were worn in sheaths or scabbards attached to a belt. This is because pockets in clothing are a relatively recent innovation. Before that, pockets or pouches were attached to belts and the earliest folding knives would have been carried within them. In more recent times, it became illegal to carry fixed-blade knives in many societies, which proliferated the making and use of pocket knives.³

Knives have never really been a primary weapon for soldiers and warriors. Distance edged weapons (spears, swords, etc.) and later in history, firearms, were always used as primary weapons. The knives that modern soldiers carry are used primarily as a tool and only secondarily as a weapon.

Concealable knives, on the other hand, have been used more as stealth weapons throughout history. The ninja of feudal Japan carried short daggers and throwing blades known as 'shuriken' rather than long swords as their intent was not to face a man directly in battle but rather to attack and/or kill their targets secretly before they or anyone else could do anything about it.

Nowadays, knives are likely used all over the world for the purposes of assassination or other forms of sudden attack. Stabbings are frequent in the Middle East, for example, because Arab countries have a strong knife culture. Often times Westerners are targeted by Islamic extremists for being an "infidel." A common type of concealed attack is the "pass & grab". Jim Wagner describes it as follows:

¹ http://www.ecotao.com/holism/hu_habilis.htm

² <http://historyofknives.com/>

³ http://en.wikipedia.org/wiki/Pocket_knife

Two Arab men in their late 20s are talking to each other as they walk toward you to pass, and they don't seem like a threat. Then, just as the two men are parallel to you, the attacker closest to you shoves your own arm against your body with his hand and suddenly you feel a sharp pain in the kidney area. The attacker pushed your arm against your body snugly so you could not react, then he shoved the blade into your kidney as he takes the one step past you. Thinking you were punched in the back quite hard, you feel your back and see the back of your hand is covered in your own blood, and the two attackers slip unnoticed into a small winding alley nearby. Since it was an unexpected attack you never saw their faces well enough to identify them.⁴

The Legalities of Pocket Knives

These days, pocket knives are legal to own in most countries, but are legally restricted in their use. While pocket knives are almost always designed as tools, they do have the potential to become weapons. In some jurisdictions it is against the law to conceal knives larger than a specified size, or with certain types of locking or opening mechanisms. They are, for the most part, banned or heavily restricted in secure areas, like airports and schools. Some jurisdictions, including some western Canadian provinces, have even banned them in drinking establishments.

Switchblades and other "auto-openers" are banned from interstate shipment by the U.S. Government and prohibited entirely in some states, although certain statutes allow an exception permitting ownership by the handicapped, military, and police.⁵

Similar laws are also in place in Canada. The carrying and use of auto-opening knives are illegal to sell, buy, trade, carry or otherwise possess. Part III of the criminal code first defines such knives as prohibited weapons: "A knife that has a blade that opens automatically by gravity or centrifugal force or by hand pressure applied to a button, spring or other device in or attached to the handle of the knife." There is no knife banning laws in Canada beyond this. As far as possession goes, no weapon can be carried on the way to or at a public meeting. In addition, anyone who "carries, uses or threatens to use a weapon or an imitation thereof, is guilty of an indictable offence." This, of course, includes knives.⁶

In the UK, it is illegal to carry knives in public without "good reason". This term is not defined, but examples of "religious duty", "national dress" and "requirement of employment or hobby" are given. It is up to a police officer's individual discretion, and ultimately a magistrate, to decide whether or not the requirements of "good reason" are met. Folding knives with blades less than 3 inches long may be carried without needing to provide "good reason" so long as the blade is not capable of being locked in the open position. However, it is illegal to have the intention of using any object in public as a weapon, meaning that even a knife that is legal to carry without needing 'good reason' may still be found to be illegal if the police officer has grounds to prove it was intended for use as a weapon.⁷

⁴ <http://www.usadojo.com/articles/knife-attacks-around-world.html>

⁵ http://en.wikipedia.org/wiki/Pocket_knife

⁶ <http://laws.justice.gc.ca/eng/C-46/page-1.html>

⁷ <http://www.bkcg.co.uk/guide/law.html>

Grips commonly used for close combat

Reverse Grip

Some instructors advocate the use of this grip in which the knife's blade is held along along the wrist, however, this method limits the wielder to slashing manoeuvres, which aren't as effective for close combat situations as the blade doesn't penetrate the target and not much power is generated.

Sabre/Fencer's Grip

This grip is one that is taught commonly in martial arts schools, in which the knife handle is held firmly between the thumb and forefinger, while the other fingers are wrapped loosely around the handle. This grip is suitable for smaller knives like a stiletto, but not for ones with larger grips. If the hand is hit in combat using the fencer's grip, one can lose your weapon easily.

Ice Pick Grip

This grip allows for deep penetration of soft armour, heavy clothes, or protective suits. In this grip, the knife handle is held in a fist with the blade pointing downward. There are a number of drawbacks to this grip. When employing a downward strike, you telegraph your attack and expose your chest area. In addition, this grip does not allow for thrusting attacks from a standard stance. It is, however, easier to use than other grips in very close quarters.

Hammer Grip

This is the preferred grip of the military. In this grip, the wielder grasps the knife at the handle and forms a tight fist. The wrist should be kept pliant as though using a hammer or hatchet. In this grip, the knife is less likely to be knocked out of your hand and it can be used with heavier knives. It also offers great versatility. Both thrusting and powerful slashing attacks can be made. It can also be used in conjunction with punch attacks or butt-end knife strikes, should the wielder wish to use non-deadly force while wielding the knife. This grip is, however, harder to use in very close quarter combat.⁸

Filipino Grip

This grip is similar to the military grip, except the thumb is positioned along the spine. It is the grip that is commonly used in Filipino martial arts. It has a little more fine control than the hammer grip but is a little less firm in the grip around the handle. This grip is also apparently favoured by some criminals, according to Harold Janks and Michael Brown in their book, *Prison's Bloody Iron*.

Stances Used for Knife Fighting

Fencing Stance

⁸ Safreed, Robert. *Knife Fighting Tactics in the US Marine Corps: Grips, Stances, Targets*, 1. (<http://www.scribd.com/doc/44015/The-Knife-Fighting-Tactics-of-the-US-Marine-Corps>)

Many traditional martial arts schools teach this stance in which the knife is held out closer to the target with the same leg forward as the hand that is holding the knife. The idea is that the wielder has a longer reach in this stance. While this makes sense for certain types of longer bladed weapons, it is not a safe position from which to hold a knife. Experienced knife fighters never use this stance. In this position, an opponent can easily get a clean grab at the knife wielding hand. If they too are holding a knife, they can easily slash at the hand/arm in which the knife is being held. Also, the opposite arm is rendered useless as a defensive tool.

Defensive/Boxing/Triangle Stance

This is the stance that is most commonly taught by the military. Versions of this stance are also favoured by criminals.⁹ This stance keeps the knife close to the wielder's body, making it harder for an opponent to grab the arm or knock the knife out of the hand. It also allows the wielder to keep their opposite arm active as a defensive tool against punches, kicks or another knife. In the military, the wielder is often taught to "hide" behind the knife in this stance, keeping it between the holder and the target. Criminals, on the other hand, often use this stance keeping the knife hidden behind their hip until they strike so they can more easily conceal their attack.¹⁰

Knife Use by Criminals

Secret Training

Criminals have reported secret training methods that were used so they could practice while incarcerated. *Prison's Bloody Iron* recounts stories of juvenile inmates using the fingernail clipper nail files as makeshift knives so they could do pretend knife fighting. Even though these nail files are very small, they do scratch and cause some pain when contact is made, giving the boys incentive to develop better fighting methods. This allowed these boys to do an effective form of knife training without access to knives (training or real).¹¹

Knife Attacks in Prison

A typical prison knife attack or "shanking" is sudden and spontaneous from the victim's point of view. From the attacker's point of view, it's not a fight; it's an assassination. The weapons aren't usually knives, though knives are sometimes smuggled into prisons. They are usually improvised weapons, everyday items that have been fashioned into blades, like toothbrushes for example. A shanking may take place when the victim least expects it, like when they're in the shower or while playing basketball with a group. There is also typical set-up scenarios like the one described by Jim Wagner in his article *Knife Attacks from around the World*:

Prisoner A walks up to prisoner B and strikes him in the face with closed fist. As Prisoner B tries to protect himself, or is caught off guard by the brutal strike, prisoner A pulls an improvised

⁹ *Prison's Bloody Iron*. Harold J. Jenks and Michael H. Brown. El Dorado: Desert Publications, 1978, 54.

¹⁰ Safreed, 2.

¹¹ Jenks and Brown, 1-2.

knife and plunges it into prisoner B's abdomen three or four times just above the belt line as hard as he can. Once prisoner B tries to protect his midsection the attack is redirected to the neck area. Within seconds, prisoner B is lying in a pool of blood.

Civilian Knife Use

Accessibility & Portability of Knives

Knives are used more often in crime due to their ease of access as compared to guns, which are more strictly controlled in Canada. More crimes in Canada are committed using knives than with firearms. For people using knives with criminal intent, the knife is the easiest weapon to obtain and is also the most portable. Switchblades, "gravity" knives and butterfly knives are prohibited weapons, but people are not automatically charged for carrying a folding knife or a box cutter. This is likely a key factor particularly for youths and young adults choosing a knife as a weapon for violent crimes. According to a new report from Statistics Canada, those aged 12 to 24 years accounted for 50 per cent of the people accused of a violent crime with a knife in Canada in 2008. In addition, the number of homicides committed with knives has risen over the past ten years and now equals the number committed with guns for the first time since 1974.¹²

Most crimes at home use weapons of opportunity and since most homicides happen in either the bedroom or kitchen a knife is the easiest weapon to pick up and use. Almost half of knife-related homicides between 1999 and 2008 occurred between acquaintances and most commonly during an argument, the report said. Family members committed 35 per cent of stabbings, while strangers committed the remaining 16 per cent.¹³

Why Civilians Carry Knives

The knife is a great equalizer. Even the smallest, weakest and most unskilled fighter becomes dangerous when armed with a knife. This contributes greatly to its being a weapon of choice for criminals. It is important to note, however, that when it comes to violent crimes using knives, most do not result in injury to the victim. Knife use most commonly involves threats, rather than physical violence.¹⁴ But it is not only people with criminal intent carrying them. In a recent survey completed for London Home Office in which youths were questioned about their knife use, 85 percent of respondents reported that they carry their knives for protection. Only 7 percent actually used a knife to threaten someone and only 2 percent used one to injure someone.¹⁵

¹² <http://www.cbc.ca/canada/story/2010/04/27/statscan-knifing-report.html#ixzz0mOmI77A2>

¹³ Ibid.

¹⁴ Nicholas, S., Kershaw, C. and Walker, A. (2007), *Crime in England and Wales 2006/07*, London: Home Office, p.62.

¹⁵ Confidence interval: 0.0403 ± 0.0054 (95 per cent confidence). Wilson, D., Sharp, C. and Patterson, A. (2006), *Young People and Crime: Findings from the 2005 Offending, Crime and Justice Survey*, London: Home Office, 26, 33.

Types of Edged Weapons

A country's, province's or state's laws and regulations dictate what type of edged weapons are employed for criminal use. When airlines prevented pocket knives being carried on to planes, terrorists relied on box cutters. These and folding knives can also be used readily in other forms of crime as many jurisdictions have no laws against carrying them. Simple kitchen knives can be purchased cheaply and can be easily discarded after use. The use of x-ray scanners and metal detectors has led to the creation of edged weapons out of composite plastics and ground glass.

In the video, *Surviving Edged Weapons* and the book *Contemporary Knife Attacks*, all sorts of non-knife edged weapons are listed as having been used violently, including common items like pencils, dinner forks, barbeque forks, pairs of scissors, screwdrivers, etc. Recently, someone even used a meat thermometer in a stabbing following a dispute at a movie theatre in Los Angeles.¹⁶ Criminals have also been known to conceal fish hooks in their hair and clothing to injure police officers during a pat-down, and tape razor blades to their driver's licenses to use against police officers when pulled over.

The Nature of Knives as Weapons

Everyone is a Knife Expert

Knives are particularly difficult to defend against as weapons for a variety of reasons. One of the main reasons is that anyone using a knife is more or less an expert, due to their long history of experience using them. As children, we learned to cut our food and know how much force it takes to slice or stab into a piece of meat. We have all used knives to prepare meals, and various professions require regular use of knives. In most societies, men of all ages carry pocket knives as tools. This makes it that much more important to understand that you can never underestimate someone armed with an edged weapon.¹⁷

Knives Are Most Effective Up Close

The Dennis Tueller Rule states that the minimum safe reactionary distance for law enforcement officers when dealing with a suspect armed with an edged weapon is 21 feet. This is to say that when dealing with a suspect with an already drawn weapon a police officer can get her gun out of the holster, turn off the safety, and fire two shots before the suspect can close the distance (which takes about 1.5 seconds if the suspect is determined).¹⁸ This, as well as common sense, dictates that when defending against a knife, distance is your friend.

Knife Attacks Come Fast and End Fast

If a person is being attacked with a knife, it is in most cases a spontaneous attack at a close distance, one that comes in extremely fast, making it that much more difficult for the defender to react effectively. Jim Wager refers to the "Five-Second Window Rule" when it comes to dealing with knives. He states that the average edged-weapon fight lasts no more than five seconds. Within these few seconds, serious

¹⁶ <http://www.latimes.com/news/local/la-me-meat-thermometer10-2010mar10,0,7045869.story>

¹⁷ *Reality-Based Personal Protection*. Jim Wagner. USA: Black Belt Communications LLC, 2005, 142-143.

¹⁸ *Surviving Edged Weapons*. (video)

bodily injury or death is inflicted. As a result, a person's first reaction to the knife attack is critical for determining the outcome.¹⁹

Wide Variety of Attack Types

When someone comes at you with a knife, you could be facing any number of different types of attacks. You can face slashes from side to side or diagonally (high to low or low to high), all of which can be short or wide radius attacks. You can also face a variety of different stabs, including straight, upward or downward thrusts. If your attacker is particularly skilled, he could even switch between the different types of attacks. As a result, effective knife defense needs to be easily adaptable for all the different attack types.

Knives Are Lethal Weapons

This point is obvious, but it has important implications on how people react to knives. Their brutality and lethality usually lead to heightened fear, which results in increased combat stress. (See "Getting in Touch with Our Own Knife Psychology" later in this report.) Also, because it is a lethal weapon the defender is justified in using lethal force and should not hesitate to use whatever means they have at their disposal provided it is a "real" attack and not your 8-year-old nephew taking a hissy fit with a steak knife, for example. Police officers should use their firearms if they can get enough distance to safely do so. Unarmed defenders can legally justify using weapons of opportunity that constitute lethal force (including knives, bludgeoning weapons, etc) and should do so when fearing for their lives.

Knives are Most Dangerous to the Inside of the Body

All the body's main arteries and organs are on the inside of the body and one should try to keep these areas protected in the case of a knife attack. The arteries include: carotid, subclavian, brachial, radial, iliac and femoral. For a 188lb, 5'10" man at a heart rate of 130 BPM (beats per minute), cuts to the above arteries can cause shock within 1 seconds to 1 minute and 55 seconds, unconsciousness in 17 seconds to 2 minutes and 52 seconds, and death in 23 seconds to 3 minutes and 50 seconds, depending on the affected artery.²⁰ The organs include: eyes, heart, stomach, liver, spleen, intestines, and genitals. While knife wounds to organs vary in severity, all are serious injuries. It is a good rule of thumb to always protect the inside of your body when defending against a knife.

Being Cut Is Not the End of the Fight

Many knife wounds do not incapacitate the victim. There are countless stories of knife attacks in which victims suffered numerous cuts and still survived. In *Prison's Bloody Iron*, the authors tell a story in which they watched two men involved in a knife fight in prison that were each cut over 40 times before the fight was broken up by the guards. In another case reported by the authors, a man was stabbed four times in the lungs (fatal if left unattended). He ran down three flights of stairs after being stabbed before he collapsed about five minutes later. He was then rushed to the prison hospital where a fellow prisoner applied masking tape over the wounds, which kept the man alive long enough to get him to the

¹⁹ Wagner, 147.

²⁰ *Contemporary Knife Targeting*. Christopher Grosz and Michael D. Janich. Boulder: Paladin Press, 2006, 36.

city hospital for proper treatment.²¹ Needless to say, a person being attacked with a knife should keep fighting until they are no longer capable of fighting back. A survival attitude is vital.

Fear of Knives: Exploring the Roots

The knife is a deadly weapon and people are naturally going to be more afraid when attacked with one. There is room to posit theories that humans may psychologically fear knives more than other deadly forms of attack like guns, bludgeoning weapons or even multiple attackers.

Many scientists believe that evolution has produced natural fears in the human psyche, which evolved to help protect us from things that would cause us harm (i.e. fear of snakes, spiders, heights, etc). Research shows that mammals in general have developed the perceptive ability to focus on things seen as threatening, such as snakes and spiders, and to respond emotionally with a feeling of fear.²²

It's not a stretch to suggest that humans might have a latent fear of knives, which could easily be associated with other natural cutting weapons that go way back in our evolutionary experience, like the teeth and claws of the predators that once threatened us. Guns and bludgeoning weapons don't have the long history of being a life threat than small cutting weapons have in our evolutionary background.

That being said, Richard McNally, an associate professor of psychology at Harvard University in Cambridge, Massachusetts, stated: "The biggest challenge that we face in considering these theories of evolution is we cannot recover the evolutionary history—there is no fossil record," he said. "People seem to have different thresholds for saying what is a plausible account of evolution."²³

Even if we don't subscribe to the evolution theory, we can consider our own experiences. Pretty much everyone has been cut at least once in their lives even if it was just a simple a paper cut. They can actually remember what it feels like to be cut. The memory of that pain could theoretically cause a visceral fear reaction in people when they are threatened with a knife. Most people have never been shot so, theoretically, it may not evoke the same intensity of response when a gun is pointed at them.

What we see and read about in popular media may have an effect on how we perceive knives, whether the perception is accurate or not. When you see people cut with knives on TV or movies, they usually feature a close-up of the victim's face showing him in extreme pain. When people are shot, on the other hand, the pain isn't as prominent. Usually the victim just drops to the ground or goes flying back from the impact. To go further with the point of how knives are depicted in movies, the most horrible serial killers in movies are usually depicted as being hackers and slashers. All of this could theoretically contribute to a stronger fear reaction to a knife.

As children, many people are exposed to toy weapons, most often guns and swords. This familiarization at a young age could theoretically make a person less fearful as an adult. You don't usually hear about kids playing with toy knives on the other hand so one could surmise that the lack of familiarity in that way leads to a greater level of fear.

²¹ Jenks, 27.

²² http://news.nationalgeographic.com/news/2001/10/1004_snakefears.html

²³ Ibid.

Getting in Touch with Our Own Knife Psychology

There really is no definitive answer as to whether humanity fears knives more than other deadly weapons or why this might be the case. Moreover, the fear (or lack of fear) that is experienced when faced with any weapon will vary quite widely from person to person simply based on their own individual psychology, making it impossible to predict how anyone would react when the moment comes.

In Jim Wagner's Reality Based Personal Protection, he asks the following:

How will you perform at the moment of truth in a conflict situation? What's going to happen to you emotionally when you're facing the real possibilities of injury or even death? Will you have the will to survive, or will you be so paralyzed with fear that you will not be able to move at all? The answer is: You won't know until you can say, "Been there, done that."²⁴

What is generally agreed upon, however, is that knives, being a deadly weapon are likely to cause an increase in combat stress. Combat stress, no matter what kind of attack situation one is facing, has the potential to greatly harm one's ability to mount an effective defense.

When one is scared, adrenaline levels are high, which cause perception, coordination and thinking to be impaired. People can have impaired sensory experiences including tunnel vision, auditory exclusion and time distortion.²⁵ When one has gone beyond the levels of being scared to being terrified, a person can freeze up, unable to react or even move.²⁶

To prepare yourself for combat stress, a person must learn to handle themselves both physically and mentally equally. She needs to experience the physical and mental effects of combat stress in her training so she can better equip herself for what she would experience in a real attack. As Professor Sylvain puts it: "Without both, you can only remain combat illiterate, no matter how well you perform your techniques or how fit you may be."

One may also experience a fear of death when faced with a knife, which can further increase the level of combat stress. While it is impractical to practice "dying," a person can visualize their death regularly as a way of combating this fear. The Samurai were well aware of this fact, encouraging warriors to "practice death":

The way of the Samurai is, morning after morning, the practice of death, considering whether it will be here, or be there, imagining the most slightly way of dying, and putting one's mind firmly in death. Although this may be a most difficult thing, if one will do it, it can be done.

²⁴ Wagner, 63.

²⁵ *Can-Ryu Jiu-jitsu 2000*. Professor Georges Sylvain. Canada: E/S Publishers, 2003, 3-1.

²⁶ *Meditations on Violence*. Sgt. Rory Miller. Wolfeboro: YMAA Publication Center, 2008, 67.

While this may be considered a bit morbid for the average person who is unlikely to face lethal violence in the entirety of their lives, a soldier or other type of military or law enforcement officer might see the benefits from this type of psychological training.

Part II: Teaching Knife Defense

Introduction

Due to the lethal nature of knife attacks, there are a number of layers to teaching its defense so that students fully understand the difficulty and severity of the situation. All of the following must be taught for the most complete set of tools for survival against a knife attack: awareness training, weapon familiarization, physical defense techniques against various knife attack situations, and first aid.

Awareness Training

Students need to be taught to perceive threats and react appropriately to them. The Cooper Colour Code of Awareness can be used as a tool for students to understand different levels of awareness. Students need to understand that when in a 'Code Orange' situation, when they feel like something isn't right or they are faced with a conflict situation, they should use avoidance or de-escalation tactics to avoid a potential violent engagement. Here are a few examples:

- If they come across someone lurking near them on a sidewalk, they should cross the street.
- If they approach their vehicle and they see someone hidden near the driver door, they should call the police.
- If someone takes issue with them and starts threatening them or yelling at them, they should use de-escalation tactics.

In the case that the person is unable to get away from a threat safely, students should be taught to listen carefully to what is being said for verbal cues that indicate safe exit strategies (i.e. giving over their wallet in the case of a mugging) or ones that indicate the start of an attack (i.e. "I'm going to cut your heart out!"). They should watch their aggressor hands at all times. If the hand disappears, or reaches for something, they should assume that it could be to reach for a knife or other weapon so they should be on their guard for such an attack.

Weapon Familiarization

Students need to understand how dangerous knives are as weapons, as well as aspects of their own anatomy so they know what parts of their body are most vulnerable to knife attacks. They also need to understand how knives are most commonly used as weapons.

For students to understand how dangerous knives are as weapons, they need to be confronted with their lethality. The starting point for this is informational. They should be provided with information that opens their eyes to the realities. All the points in "The Nature of Knives" from earlier in this report should be covered in detail.

The first physical portion of a knife defense course should be spent learning the variety of strikes that are typically used. The eight-strike pattern (includes inside and outside slashes, downward diagonal

slashes, upward diagonal slashes, a straight stab and a downward stab) should be taught, using the defensive stance as the base stance.

So that people understand how easily they can be cut when attacked with a knife, it is a good idea to do a “reality drill.” This can be done by having each student face off against a fellow student who will attack them armed with a felt tip marker or a rubber knife that has had its edge covered with red lipstick. Students doing this drill should wear old t-shirts that can be disposed of afterward. They will quickly see how easy it is to get cut when faced with a knife.

Physical Defense Techniques

Tenets of Can-ryu Jiu-jitsu Applied

Due to the high level of combat stress a person is likely to be under when defending against a knife, the physical knife defense system that is taught should, without question, follow the tenets of Can-ryu, in particular: simplicity, commonality of technique, and usage of gross motor skills.

- **Simplicity.** A student should be able to be able to learn a defensive technique in a way that is usable in less than 3 minutes.
- **Commonality of Technique.** The system should use similar types of techniques in similar defensive situations. The purpose of this is to prevent brain stalling as a person tries to “think” of what to do, which is more likely to occur when under extreme combat stress. If the defense system that is taught is more or less the same within all the different minor variations of the same attack, it reduces the chances of this.
- **Usage of Gross Motor Skills.** Fine motor skills shut down when under high combat stress. It is therefore critical that a knife defense system relies on gross motor skills.

Awareness of multiple attackers has its place too, but if only one is armed with a knife, the one with the knife should be prioritized in one’s defensive strategy. See the accompanying “One-Hour Knife Defense Lesson Plan” and accompanying video for specific details on techniques.

Ground Rules for Knife Defense Training

Students should be made to follow the 6 ground rules for knife defense training when they perform physical defense techniques. See the accompanying “One-Hour Knife Defense Lesson Plan” for details.

Knife Defense Circle

This is an important tool for honing students’ knife defense skills on a number of levels. When they first start out, the attacks should be slow to moderate speed but unrelenting, what we call the “Zombie Attack.” When a student in the middle of the circle is at the very earliest stages of training, the attackers should use the same attack repeated (i.e. if they start with a stab, they keep attacking with a stab). As a student becomes more comfortable with the drill, the attackers can use multiple attacks, but maintain

the “zombie” speed. At the highest levels of development the attackers can use speed and variety of attacks. At this level, however, it is recommended that the defender and attackers wear wrap around eye protection and that rubber knives be used (not wood or hard plastic).

Attackers should take on different mentalities as attackers. They could come at them with knife out, yelling for the defender to hand over their wallet. They could come out as a defensive knife fighter who waits for the defender to make a move before they attack. They could even attack the student without a knife as these defenses work against other striking attacks too. The student can use the circle to develop their cognitive processes so that they react appropriately.

One last benefit of the knife defense circle is that it helps students learn to deal with combat stress. The very nature of the circle, being made to defend against random attacks from people who have you surrounded, generates combat stress for the student in the middle. An instructor can increase the level of combat for the student as their proficiency improves. She can do so by increasing the difficulty level (as mentioned above). Or she can tire the student out before putting him in the circle (using wind sprints, burpees, push-ups, etc).

First Aid for Knife Wounds

It is vital to not only learn knife defense techniques but also know how to survive knife wounds and injuries so that students end the altercation in a hospital and not a morgue.

Step 1 – Don’t Panic

Students should be encouraged to have a positive, survival mentality. They should be taught to think, “Thank God I’m still alive. I’m going to be OK!” and not give in to fears by thinking “Oh God, I’m going to die!”²⁷

Step 2 – Call for Help

If you can get help from someone close, call to them for help. If no one is nearby and you have a serious injury, you may want to call 9-1-1 before attempting to deal with your wounds in case you pass out.

Step 3 – Stop the bleeding

Depending on a person’s weight, they have 6 – 7 quarts of blood. Loss of more than one is a threat to their survival. Students should be taught to follow these steps to stop the bleeding:

- **Apply direct pressure.** Use anything available, clothing or your hand. Keep the pressure on long enough to allow for blood clotting. If you use cloth and blood soaks through, don’t remove it; add more. Removing the cloth may remove the clot.

²⁷ Sylvain, 12-12.

- **Elevate the wound.** As long as there is no fracture, elevate the wound above heart level. This will help slow down blood loss. If the injury is to the shoulder, neck or head, and there is no fracture, get into a sitting position to elevate the wound.
- **For life-threatening arterial wounds, apply a tourniquet.** DO NOT apply a tourniquet to control bleeding, except as a last resort in a life-threatening situation as doing so may cause more harm than good. If continuous pressure hasn't stopped the bleeding and bleeding is extremely severe, a tourniquet may be used until medical help arrives or bleeding is controllable. It should be applied to the limb between the bleeding site and the heart and tightened so bleeding can be controlled by applying direct pressure over the wound.
 - To make a tourniquet, use a flat band of cloth at least 1" wide and wrap them around the limb several times.
 - Tie a half or square knot, leaving loose ends long enough to tie another knot. A stick or a stiff rod should be placed between the two knots.
 - Twist the stick until the bandage is tight enough to stop the bleeding and then secure it in place. Check the tourniquet every 10 to 15 minutes.
 - If the bleeding becomes controllable, (manageable by applying direct pressure), release the tourniquet.²⁸
- **For lung punctures, seal the wound.** If you've been stabbed in the lungs and have a sucking chest wound, seal the puncture by placing a piece of air tight material directly over the wound and tape it on three sides, ensuring that air can escape. Try to breathe normally, not too deeply.²⁹

²⁸ <http://www.nlm.nih.gov/medlineplus/ency/article/000045.htm>

²⁹ St. John Ambulance First Aid: First on the Scene. Ottawa: Priory of Canada of the Most Venerable Order of the Hospital of St. John Jerusalem, 2009.