PRACTICAL SURVIVAL SKILLS

FIRST AID & NATURAL MEDICINES IN A SURVIVAL SITUATION

J.P. LOGAN

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INTRODUCTION

So, you've found yourself lost in the wilderness, injured and far from home, and you don't know where to go or what to do next. You always thought you had the answers for whatever life threw at you but this is one thing you never thought would happen to you, and now, you're faced with a life & death situation. Society never prepared you for the eventuality that you'd have to seek your own food and shelter and that you'd have to be responsible for your well-being or the well-being of others.

After the plane crash which seemed to claim

the lives of most of the crew members, you look around the area for signs of life. How will you help those who are wounded? And what about your own injuries? That grazed knee or injured arm that would never usually be an issue when you're close to the medical conveniences of a first aid kit or a hospital suddenly looks a lot more of an issue now that you don't have anything to treat it with. Minor wounds suddenly take on new significance and urgency under the quickly darkening sky and how you will approach the prospect of more serious injury or even death seems unimaginable.

At this point, there is no sense in relying on established medical help. You could be many thousands of miles from any kind of medical facility with absolutely no way of getting there. Medical help of any kind at this point is a physical impossibility. You're faced with the prospect of treating your injuries and the injuries of others using what you have in your bag or satchel and whatever is in the environment around you. The best resource you have available to you is the knowledge

that is inside your own head. To make matters worse in the situation, you're not only unable to rely on getting quick medical help but you also may be faced with the spectre of clear and present dangers such as thirst, lack of food, the elements, a new and unfamiliar environment, and the hazards that are a part of that wilderness environment. All around you, as night falls, you begin to hear strange and unfamiliar sounds of insects and animals that could harm or kill you. You have no way of knowing if there are dangers headed straight for you. At this point, the whole situation might threaten to overwhelm you completely.

The question is: *In such a situation, would you know what to do?*

Such situations are not an impossibility. They are very likely given the unstable nature of the world. We as human beings need to be prepared for anything and everything. The key at this point is not what you're going to do in the future. It is what you've already done in the past. You see, the key to handling

the difficulties of life is not acting in the moment, but by perceiving what may happen and by taking action so that you're ready to face it when it eventually does happen. By picking up this book, you've already taken the first step to readying yourself for what eventually may be terrifying and deadly situations. The key is knowledge, research, understanding, and preparation.

We live in a world fraught with danger. Such dangers include natural disasters such as earthquakes, floods, and fires, among others. We also live in a politically unstable world. Every time you step outside your front door, you're putting yourself at risk. Riots, crime, unrest, and violence are not far away for most of us, whether we want to admit it or not. The reality of life is that it is complicated by perils of various kinds. In addition, stepping

outside puts you in the position of being responsible not only for your own health but the health of anyone who may be with you. You need to have the knowledge and skills to be of use in any situation you may find yourself. If someone has a heart attack on the street in front of you, what will you do? If you injure yourself in the workplace, what will you do? If you get into a mugging and are critically wounded in the process, what will you do? The onus is on you to prepare yourself accordingly before such situations can occur so that you do not get caught unawares. The skills and knowledge you acquire never lose their value or fade away. They are always with you.

ABOUT THE AUTHOR

I understand that the reader wants to be prepared for any and every eventuality. There are few people around today who do not want to prepare themselves so that they are best equipped to deal with these situations. So, given that you want to help yourself and

others, you want a guide that is going to help you to know what to do in these situations. You want someone that you can trust and that is going to offer you accurate, comprehensive, yet simple advice to help you through any situation that you may face. There is good news. I am an ex-military serviceman with a lifetime of experience in the army. I have vast experience and know-how, and I've learned to put these skills to use in countless stressful situations over the years. My work is available to share with you in a practical and meaningful way.

Having discovered a passion for wilderness survival during my time in the military, I have worked endlessly to help and assist others to reach their potential and to prepare for the unexpected situations of life. I have a certification in wilderness first response training, and I give training and seminars on utilizing the natural resources provided by the environment to help with medical emergencies and survival situations.

Benefits of This Book

This book is intended to help you through the situations you may face on a day to day basis by helping you to be as prepared as possible for any eventuality. If you have this guide, you'll never have to worry that you're going to find yourself in a survival situation that you don't know how to deal with. You don't ever have to be worried about finding yourself in a situation where you lack the knowledge and skills you need to make it out safely.

Whatever the situation is that you're facing, you will find a comprehensive list of solutions for the issues that you have to deal with. Reading this book will equip you with the tools and the knowledge you need in order to accomplish tasks if you ever find yourself in the wilderness.

When you're in a difficult situation, you want quick access to solutions. The advice presented in this book is presented in such a way that this knowledge can be easily accessed. In order to function effectively in many different kinds of situations, you need a

mixture of both theoretical and practical knowledge, and this is what this book offers. It must be said, however, that much of what you need lies in the knowledge that you gain through doing research. So put your focus into doing that.

This book is beneficial for those who have little to no knowledge of first aid situations. It is therefore ideal for the layperson and those who are still starting out in their quest to become better at these necessary skills. The advice given in the book is presented in a detailed but simple fashion. It can be used by all different kinds of people from all different walks of life.

What's in This Book?

This book contains a myriad of helpful First Aid & medicinal plant advice which will enable you to get through stressful and difficult survival situations involving casualties. So, what is the nature of the advice you can find in this book?

The first section helps you to be aware of the

basic principles you need to know before embarking on any journey. There are fundamentals that you need to be aware of before performing any task, and first aid is one of these disciplines. By knowing these basic foundational ideas, you more clearly understand why certain actions are necessary in any given first aid situation.

Being your own doctor means you are aware of exactly what needs to be done when faced with situations requiring wound care or any other kind of medical attention. The ability to help yourself is the fundamental focus of the second chapter. It is of the utmost importance that you develop the ability to function in an effective and practical manner when faced with the stresses of a difficult survival situation.

Tissue injuries are a specific kind of injury that needs special attention because unlike broken bones, it can sometimes be difficult to determine the exact nature of the injury. It is therefore incumbent upon you to realize what the extent of the injury is by examining the

signs and deciding on the best course of action to treat it. You'll learn about different kinds of tissue injuries, how and why they occur, and what can be done to prevent them.

Bleeding wounds and broken bones are specific kinds of site injuries that need to be addressed urgently and cannot be left for any length of time. Because of the urgent nature of these injuries, you need to be able to think quickly about what needs to be done. There are several steps that you need to take from determining what kind of wound is in play to the severity of it. You then need to decide how to treat the wound based on the materials you have available to you and the environment you found yourself in.

Bites and stings are kinds of injuries that can be extremely urgent depending on the nature of the bite or sting. They are not to be taken lightly if you are unaware of what the insect or animal was that made the bite. It is therefore important to be aware of what kinds of animals and insects you can often encounter and what the procedures are when

the situation calls for serious measures. This section really helps you get foundational knowledge in this important area.

Heat exhaustion, burns, and hypothermia are dangerous conditions that require careful care and attention. Such actions may harm or save the life of the person who is in danger. There are specific steps you'll need to know about which are addressed in the sixth section. Heat-related conditions are prevalent in survival situations and need to be taken seriously.

Natural remedies are an integral part of first aid. Anyone who finds themself in a wilderness situation needs to be adept at making best use of the situation around them. This skill starts with the acquisition of knowledge that helps you to be prepared for such situations. What kinds of plants have the best medicinal use? What kinds of strategies can you use to make best use of these plants? How can different kinds of environments be tactically used to help you in difficult medical emergencies? Natural remedies are those

remedies which come from the soil, the earth, plants, trees, and even animals and insects. You need to be best positioned to use them. This final section gives you the guidance and knowledge to do that.

Quit gambling with your health and the health of your loved ones. Take the initiative today and get equipped, so you can be prepared for anything and everything, even the very worst of situations.

1

EXPECT THE UNEXPECTED—FIRST AID PRINCIPLES IN SURVIVAL SITUATIONS

There are a number of key foundational principles that you need to be aware of.

These principles apply to any survival situation you may encounter. When no help is apparent from any external source, you need to make use of your surroundings, knowledge, and materials to get the best out of the situation. This section also provides guidance on how to prepare a comprehensively put together first aid kit. What do you need to carry with you in order to prepare for these situations? There are specific key items that could make the

difference between life and death. Overall, you need to be equipped, ready, and able to deal with absolutely anything you face. It starts with these principles.

PREPARING FOR THE WORST

Let us start with a hypothetical situation. You've gone on a hike with friends. Your satchels are packed, food has been prepared, and all kinds of activities have been planned. The weather is absolutely perfect and all seems to be going well. You set off down one of the marked trails, but one of the children you are responsible for decides to venture off the marked path to look at something interesting. Suddenly, you hear a bloodcurdling scream and you turn around, alarmed, to see what it is. You discover that the child who wandered off the path has fallen into a narrow gorge and injured their ankle. Using a rope, you manage to get the child to safety, but their ankle seems to be seriously injured. What are you going to do in this situation?

I’ve been in many similar situations while in the military. It is these types of situations that made me realize that I needed to be prepared for anything.

So, what about first aid? Let us return to the hypothetical situation. Faced with an injured ankle, what are the steps that you need to take in order to treat this injured child? It is important to realize that first aid is not a cure-all solution to any kind of injury that you may encounter while on the trail. It is merely a way of stabilizing the injury until more professional help can be found. Injuries cannot be completely cured while on the trail and thus they must be handled as best as humanly possible.

In the case of the injured ankle, you will need to have the knowledge to be able to position the patient correctly so the injury doesn’t shift. You need to be able to bind and treat the wound correctly so that it is stable. Having the required skills and knowledge at this time will enable you to potentially save someone from a great deal of pain and

discomfort.

The key is that whatever skills you learn from this guide, they will not be for your use alone, but for the good of all you come into contact with. The essence of conducting effective first aid in any situation is to think of how you can make the other person as comfortable as possible until you can get them to proper help.

WHAT IS FIRST AID?

The first question one naturally considers when hearing the words “first aid” is *what does the term mean*? First aid can cover a large range of medical topics and situations. But what does it really mean to apply first aid? What are the core and founding principles that make up the discipline? First aid as a specific practice has been around since the dawn of time. Since mankind has needed to have a system in place whereby people could be treated without the need of being taken to a hospital, first aid has always

been necessary. It was not always called that, but it has always existed since the beginning of recorded medical science.

As we saw with our story, first aid is a practice whereby injuries are treated without the use of established medical treatments and centers. When you need to rely on your wits, skills, and knowledge to treat injuries and illnesses while off the beaten track, that's using first aid. First aid is the practice of taking your understanding of the human body and applying it in a way that serves and helps others who are in need.

FIRST AID PRINCIPLES AND CORE CONCEPTS

You can be forgiven if you are saying to yourself, "PRINCIPLES & CORE CONCEPTS would not have much of a place in a survival situation". You can be forgiven, because, PRINCIPLES & CORE CONCEPTS of first aid are equally as important, whether, in a conventional or a

survival setting. First aid PRINCIPLES & CORE CONCEPTS are guidelines by which if you follow & apply, will guarantee not only your patient's safety, but, also your own safety. If you have a good grasp of first aid PRINCIPLES & CORE CONCEPTS, you will be equipped to administer first aid in any environment.

Let's go over them now!

The first and foremost principle of first aid is the preservation of life. One of the initial steps that a first aider will take when faced with a difficult situation is to make sure that the patient is not in any kind of mortal danger. If they are, this danger needs to be dealt with and overcome before further treatment can be administered. A safe and stable space needs to be available to the first aider so that they can administer the best treatment possible given the circumstances.

Do not put your own life in danger in order to administer first aid. Remember that you are the sole hope for the person whose life is itself in danger. Therefore, whatever you do,

make sure that the situation is safe enough for you to be able to administer the proper help. Make sure that the area is free of debris and not in the way of passing traffic. If you're in a wilderness area, make sure that the area you are in is stable and not in danger of collapse. Ensure that the risk of further harm to the patient is minimal. If there are external hazards such as risk of falling or fire, then move the patient (in the correct manner) to an area where they are no longer at risk of being affected by these factors. Be extremely careful that you do not aggravate any injuries further.

The next goal of first aid is to prevent deterioration of a condition or injury. Using your skills and knowledge, you need to treat the condition in such a way that at the very least, the patient does not continue to get worse. This means that a broken leg needs to be stabilized so that the injury does not shift and the person who is suffering from hypothermia does not continue to lose heat, thus leading to death. Such situations call for an experienced head and one which sees what

a situation can become. By analyzing all the possibilities, you can plan ahead and prevent a situation from becoming worse. Basically, you are decreasing the danger to the person's life and giving the best chance of recovering in the future.

Promoting recovery is the next core component of first aid. The goal of any kind of medical treatment in any given situation is to make the person feel better and to ensure that their lives are saved by administering life-giving medical attention. There are a number of steps that you can take in any given situation that will increase the patient's chances of recovery and survival. It is incumbent upon you to know what these steps are. By being aware of what you need to do beforehand, you'll be prepared to efficiently act in these situations. Quick and efficient action in these situations can also be the difference between a setback and a longer recovery, or a reduced healing time and less risk of scarring in the future.

First Aid Practices

There are a number of core steps that you need to take when you first encounter a medical emergency. These steps form the basis for all kinds of processes that are going to be taken, no matter what the situation is. Let us look at some of these practices.

The first principle is that you take immediate action. Whatever action needs to be taken, it needs to be performed with the utmost speed in order to maximize recovery time. In many life & death situations, the fate of the person concerned rests on your ability to make quick decisions and to perform the necessary operations at speed. Your decisions can save someone's life. No matter what the situation is, you always need to be ready to contribute in whatever way you can.

You need to be able to calm the situation. When situations are fraught with worry, it is harder to get anything done. A cool head under pressure is more capable of making the correct decision about what needs to be done than someone who is constantly frazzled. You need to be at your best mentally in order

to help someone else who is in need. By remaining calm, you not only help yourself. You also calm down the person who is in need and reduce their stress levels. Reassurance and support are vital in emergency situations. Always try to keep a cool head under pressure.

Calling for assistance is another principle of basic first aid. Being able to call for help or alerting others to the possibility of danger is an important part of first aid. Others may be in a better position to help than you are. By letting them know what the problem is, you can help the situation more effectively. Calling for assistance in a survival situation, may mean, having to send people to seek rescue & assistance.

Applying the relevant treatment is another core principle in the system of first aid. You need to know what kinds of treatments work best in different situations. Once you learn what works, you can more effectively handle these different kinds of situations. For example, you would not apply a bandage to a

broken leg as this would not be an effective way of stabilizing the wound. Instead, you would use a splint. If someone has stopped breathing, you would use CPR to try and get them resuscitated again. It is important to identify in that moment what treatment works best for any given situation.

WHAT IS SURVIVAL FIRST AID?

When thinking about the different kinds of first aid available, one needs to consider that, survival first aid medical care is going to look very different to professional medical care. This is partly because it is administered under very different circumstances and with whatever materials happen to be on hand at the time of the emergency. So, let us talk a little bit more about what survival first aid means and how it differs from a more professional form of medical care. There are a few key points we need to be aware of about what constitutes survival first aid.

Firstly, survival first aid focuses on providing

medical care in difficult terrain and environments. It is made for times when professional medical care is impossible to access due to the nature of the situation and the proximity to civilization. When hospitals and clinics are far away, first aid needs to take over.

Secondly, when supplies are limited, survival first aid takes precedence. When you are not able to access the resources you need, you have to begin to rely on the environment around you. This is when a knowledge of what works in these situations is most critical. Without this knowledge, you have no way of knowing how to make use of the resources that are around you.

Thirdly, many common injuries can be treated by survival first aid. For more complex kinds of lesions, you are going to want to administer more professional help. For these types of injuries, a more indirect form of treatment may be employed in order to stabilize the injury until further help can arrive. These forms of indirect treatment are

put in place when the tools and equipment to deal with a medical emergency are not present. The person needs urgent medical attention and needs to be taken to hospital immediately. Survival first aid can be administered in order to keep the person stable in the interim.

Survival first aid is very much targeted at the situation that it finds itself in. A person who administers survival first aid has to be prepared to adapt to their environment, be it mountain, marine, or other kinds of wilderness. When administering survival first aid, you are also dealing with situations that are far beyond the norm. You are dealing with snakes, lightning, envenomation, insect bites, natural disasters, and other situations that may seem far beyond your control compared to professional medicine.

So, what is the point in bringing up survival first aid? It is necessary as a first aider to be aware that, you may not have any of the modern tools & accessories available to you in your survival situation, but, injuries &

casualties may have to be dealt with. Both survival first aid & conventional first aid are different and both are used in different situations. By being aware of how you can use both forms of first aid, you're less likely to make the wrong decision in a stressful situation.

The Differences Between Survival First Aid and Conventional First Aid

Overall, the difference between these two concepts is simple. Survival first aid is the practice of administering first aid when regular medical attention isn't available. First aid deals with more established practices and medical care. Remember that in a survival situation, you might not always have access to your preferred medical instruments and there may be a need to improvise. This is where the need for a knowledge of survival first aid comes in. It is this practice that will save your life. Nowhere is this more evident than in the stories of people who have personally been through these experiences. Through seeing how people dealt with the

situations they were faced with we will get a better understanding of what these two different kinds of first aid entail and how they work in different situations.

The first stories we will examine are of people who found themselves in difficult situations, injured, and needed to find a way to survive. These are stories of people who refused to accept their fate and decided to keep fighting, no matter what the personal cost.

Firstly, there is the story of Juliane Koepcke. She was a mammalogist and the sole survivor of a plane crash in 1971. Her story is an incredible tale of bravery and survival. For 11 brutal days, she endured hardship beyond anything anyone could have experienced, all while marooned in the harshest environment on the planet, the Amazonian rainforest. After a fall of nearly 3000 meters, she was lost and alone, and the chance of death seemed certain. But let’s look a little more at how she was able to deal with the traumatic circumstances facing her.

Her ordeal began when the plane she was in began to disintegrate in midair after it was struck by lightning. Still strapped to her seat, Juliane found she had nowhere to go, nearly 2 miles above the rainforest.

Alone, with a broken collarbone and in a hostile environment, many miles from civilization, what was Juliane to do? She had only a few small pieces of candy and a small stream she had discovered while wandering around the area. In this way, she was at least able to keep herself hydrated while she worked out what she could do next.

With the wound on her arm being infected by maggots, what was Juliane to do? Nine terrifying days followed in which she attempted to keep herself alive while she tried to find help. She eventually came across an encampment. At this point, the wound was completely overrun with maggots.

In order to treat her wound, she found a tank of gasoline and treated it. Gasoline is not considered as a treatment for wounds. It has been known to irritate the skin and make

wounds worse. Why Juliane decided to use this form of treatment is unknown, however, it did help her to survive during this difficult period by killing the parasites in the wound. A few hours after she'd administered the treatment, workers discovered her and took her to a hospital where she was successfully treated.

There are other survival first aid in the wilderness stories. Let us take a look at some of them.

At Goblin Valley State Park in Utah, Shelli Johnson, hiking along with her family, found themselves in the unenviable position of witnessing a young girl fall from a cliff. As first responders affected by the situation, they needed to make a decision and they needed to make it quickly. Because the location was so far away from anywhere, they had to make do with the skills, supplies, and equipment that they had on hand. This is the very essence of survival medicine, making do with what you have when you don't have access to the tools and materials you usually use. You cannot

always rely on such things.

The initial reaction according to Shelli (Johnson, 2017), was a sense of the responsibility for the life that they needed to save. At that moment, they weren't thinking about anything other than what needed to be done. Along with this weight of responsibility came a real desire to help the girl.

What they did next would shock everyone. Calling on their wilderness skills, the family of Shelli and Shelli herself sprang into action and went to help the girl. She and her family carefully descended down into the crevasse to help her. They immediately assessed the situation to see how serious it was and came to the conclusion that she needed urgent medical attention, having fallen from such a dizzy height. From her previous experience, Shelli knew that someone in that condition might have head, neck, or spine injuries and so she was extremely cautious about moving her. The uneven ground made it more difficult for them to treat her and so they needed to come with a solution to the

problem. Not having access to proper medical attention at this time made the situation more complicated than it needed to be.

After completing the ABCDE process (a process for assessing the status of a person's condition) and determining that the patient was conscious, although losing blood, Shelli was able to get into contact with qualified medical professionals that assisted the situation. The key is that without her knowledge and skills, the victim may have suffered worse damage.

The next story we will examine is that of a woman who spent several days lost in the Oregon wilderness. With her leg broken from a massive fall and running short on resources, she had little to go on, and she made several crucial mistakes. She moved further into the heart of the forest and further away from prospective rescuers. But one thing that she did do right, in the absence of key medical care for her damaged leg, was to support it using her underwear. This helped to keep the broken bone from shifting further until she

was able to make contact with authorities and get to a proper medical facility.

The next story follows the journey of a man from Japan, Hiromitsu Shankawa who was carried away by a flash flood following a devastating 8.9 magnitude earthquake. Lost, alone and far from home, he was faced with almost certain death but he got lucky because he found a flotation device and was able to hold onto it. In order to survive hypothermia, he was able to stay dry on top of the debris and thus was able to remain relatively warm. The weather after the tsunami was favorable and this also helped to avoid the constant threat of hypothermia. Eventually, after several days drifting, he was discovered and rescued. The key lesson here is that when you're faced with a large amount of water around you in a survival situation, do your best to stay dry and warm. It could save your life.

So, what are some other stories of people who have been in life & death situations and survived? Let us look at a few more tales of

miraculous survival through the implementation of survival first aid. No more are these stories more common than through the war veterans who have encountered, faced, and overcome these situations. We can learn a lot from the way in which they used the environment around them to overcome injury, illness, and death.

The next story deals with Taylor Gibler, a mountain climber who suffered a nasty fall during an expedition on Mt. Baker. She was with a small party of other climbers and hikers. The day started optimistically, and the weather was bright and clear. However, the weather wasn't to last. Several hours after they'd begun their trek up the mountain, the weather turned inclement. They kept expecting it to clear at any moment, but it never did.

Eventually, they made it to the summit where they found the temperature was close to freezing and it was impossible to see, hear, or speak. With this being the case, they decided to start back down the mountain. However,

they found the going extremely difficult and grueling. About five and a half hours later, they reached the moraine (a mass of rocks deposited on a glacier). It was at this moment of relaxation that Taylor stumbled and slipped, with devastating consequences.

She slid down the slope for about 50 feet, was catapulted into the air, and landed some 30 feet below. She felt no pain at this point. However, something was wrong. It was only when she tried to stand that searing pain cut through her body and she blacked out. It was several hours later that she woke up in the freezing cold with her colleague standing over her. Her arm had been shattered and she was unable to focus or speak clearly.

Using all her strength, Taylor managed to climb back up the steep incline using her only good arm. When she got to the top, her colleague Matt pulled her out. But she was slowly dying of hypothermia. Her colleague wrapped her in as many clothes as possible to try and keep her from the freezing air and to prevent her condition from deteriorating

further. In this case, the survival medicine or survival first aid that was required involved the care of someone who was clearly suffering with freezing temperatures. By thinking quickly, her colleague was able to keep her alive. He also used his hardshell jacket as a way to keep her broken arm from being further injured. This quick thinking in a difficult medical situation probably saved her life.

Later, she was able to receive the medical attention she needed but she had come dangerously close to dying. The actions of her colleague prevented her from dying of hypothermia and his idea with the sling helped the arm to not get further injured during the perilous trip.

The key in all of these situations was that the people who were with the victims had the presence of mind to help them and their quick thinking saved the day. But what happens when a victim is alone and has to fend for themselves? What are the stories that show how people relied on survival medicine when

they had no one else to turn to?

During the 1960s, a man by the name of Dr. Leonid Rogozov was out on an arctic expedition with about 12 other researchers. While on the journey, he started to notice incredible pain in his lower right abdomen. Not knowing what the source of the pain was, Rogozov soldiered on for a while, but eventually, the discomfort became too unbearable.

After thinking for a bit, he eventually came to the conclusion (using his own knowledge in the field) that he actually had an acute bout of appendicitis. Faced with the prospect of either carrying on and risking death if the appendix burst or entrusting his life to someone else (none of the other researchers knew surgery), he had to make a decision. With no help forthcoming from any of the people he was with, he was forced to take matters into his own hands. He decided to operate on himself. Having no general anaesthetic, he decided to use novocaine to dull the pain as much as possible. He had no

way of knowing if the incisions he was making were correct. He relied on his sense of touch alone. Eventually, when the offending organ was removed and a crude stitch job was conducted, he found that the appendix would have soon burst had he not intervened. The doctor's quick thinking had saved his own life. The key in this situation was his prompt and effective attitude toward the crisis. If he had not done what he had done, he would most certainly perish as no one else could help him. Sometimes, the safest hands are your own and, when faced with a situation that is life or death, you need to make a quick decision or risk permanent and lasting damage.

Then there are stories of people who have experienced being bitten by snakes and other dangerous animals in the wild, and they have managed to survive. In many cases, when you are bitten or envenomated, you require certain antivenoms or medications in order to survive. But what do you do when you do not have access to these resources and you need to access them or face certain death? What do

you need to do? Well, we can look at the stories of people who have experienced this for themselves and see what they did in such situations. What can their experiences teach us?

Meet Kevin Murray, an explorer who bitten while out hiking in New Jersey. While on a trail not far from his home, Murray suddenly felt a sharp stinging pain in his leg and glancing down, saw that he had been bitten by a venomous Copperhead snake. At first, he thought it might be a wasp, but then he saw the distinctive head of the reptile. The bites of these reptiles are known to be potentially fatal. Because Murray was able to seek urgent attention, he did not require antivenom and the medical professionals were able to rid his body of the venom before it impacted his system.

Murray's situation was resolved easily enough and it shows the value of having access to proper first aid. But what of those who have access to neither medicine nor a hospital or doctor? Let's look at a situation.

A man by the name of Scott Vucannon was hiking on a trail in Nantahala with his dog. It was a bright and warm day. Without thinking, he took a particular trail and was walking when he spotted a snake out of the corner of his eye. Before he could react, it had struck him in the leg. Immediately, thinking quickly, Scott grabbed the bandana off his forehead and made a tourniquet which he used to stop the blood flow to the affected leg. His quick thinking might have saved his life. He managed to locate his phone and with vision failing and his senses becoming increasingly unresponsive, he managed to summon enough strength to dial his wife and let her know where he was. However, when he looked at his phone, he saw that it said “no service.” What was he to do? Fortunately for him, his wife had already suspected that something was up and came running to his aid as soon as she discovered he had not arrived at the pre-agreed time of 4pm in the afternoon. After an ordeal lasting more than 4 hours, Scott was eventually found on the trail and taken by road to the nearest hospital. The lesson is that thinking quickly can save your

life in a life & death situation. If Scott hadn't had the knowledge to do what he had done, he would have not only lost his leg, but also his life.

So, what have we learned by looking at the various tales of people who have found themselves in difficult situations? We learned that in order to survive in the absence of proper medical care or even rudimentary first aid, you need to have prior knowledge of what to do in these situations. Educating yourself on what to do is key. Knowledge is definitely power in these situations. In addition, you also need a mind that takes initiative. Knowledge can't do anything for you if you don't know what to do with it. If you know what to do, the situation becomes clearer. In order to survive using survival first aid, you need to be adaptable in whatever environment you find yourself in. You need to be able to use the resources at your disposal to the best of your ability. In addition to all of this, the main thing you need to be able to do to use survival first aid effectively is to take risks, even if that may

mean a short-term sacrifice. In many survival situations, not having access to proper medical care or a first aid kit meant that people needed to do things which might have been outside the norm for being in a civilized environment. Some of these practices or actions may seem crude to us, such as the practice of drinking urine in the absence of water, etc. However, the people that did such things did so because they needed to survive and they were prepared to do anything to achieve that aim. The fact that they did survive is testament to the fact that their risk paid off. So, the core element of using survival medicine is one of taking calculated risks and not being afraid to try new things in order to achieve the desired result.

The difference between survival first aid and conventional first aid is that conventional first aid is the established practices, materials, and resources that you need in order to survive. If you have these resources when you encounter an injury or illness while in a survival situation, you'll have a good chance at survival. However, if none of these things are

present, you'll need to rely on survival first aid. This is the environment, knowledge, and skills gained from years of experience and training. These skills cannot be found in established first aid theory. They are the skills that come from deep within you, the ability and will to survive and overcome whatever situation you are faced with, even in the face of impossible odds. Survival first aid is the very last resort you turn to when you have nothing else left to turn to. It is your last line of defense.

SURVIVAL FIRST AID KIT

You can buy first aid kits just about anywhere or you may want to assemble one based on your needs. A first aid kit may include:

Basic tools & consumables:

- Large triangular bandage
- Aluminum finger splint
- Instant cold packs
- Cotton balls and cotton-tipped swabs

- Disposable nonlatex examination gloves, several pairs
- Duct tape
- Petroleum jelly or other lubricant
- Thermometer
- Turkey baster or other bulb suction device for flushing wounds
- Sterile saline for irrigation, flushing
- Surgical mask
- Syringe, medicine cup or spoon
- First-aid manual
- Hydrogen peroxide to disinfect
- Plastic bags, assorted sizes
- Safety pins in assorted sizes
- Scissors and tweezers
- Hand sanitizer
- Antibiotic ointment
- Antiseptic solution and towelettes
- Eyewash solution
- Adhesive tape
- Elastic wrap bandages
- Bandage strips and "butterfly" bandages in assorted sizes
- Super glue
- Rubber tourniquet
- Non-stick sterile bandages and roller

gauze in assorted sizes
- Eye shield or pad

Medicines to carry:

- Personal medications
- Auto-injector of epinephrine, or Epipen if prescribed by your doctor
- Pain relievers, Tylenol, Advil & others.
- Always carry Aspirin
- Aloe vera gel
- Calamine lotion
- Anti-diarrhea medication
- Laxative
- Antacids
- Antihistamine
- Hydrocortisone cream
- Cough and cold medications

This may seem like a lot of gear to carry, but, once packed up it will fit in your bag.

A couple of examples

2

INITIAL ASSESSMENT—BEING YOUR OWN DOCTOR

This section aims to help those who are beginner first aiders. It aims to offer advice that is accurate, yet simple enough to be understood by those who are unfamiliar

with the basics of first aid and first aid practices in a variety of wilderness situations. The purpose of this section is to help the novice first aider make the right decision when assessing an injury. It is imperative that they know how to evaluate the situation and determine the extent of the injury. There are two sets of questions you need to ask yourself in any given situation. You must consider both the general status of the situation and the more specific questions that will refer to different scenarios you might find yourself in. There is no harm in being prepared in any and all situations.

A READER QUIZ FOR EVALUATING THE SITUATION

In order to know what to do in any given situation, there are general and specific questions that you can ask yourself when you find yourself in a difficult situation. In this section, we can examine some of the more specific questions that one might expect to address in a specific scenario. The title of this

quiz might be titled “what to do in any given survival situation” or “do you know what to do in any given situation?” In order to play this game, we’ll give a specific scenario and then analyze the situation, examining what the different aspects of a specific scenario are and what to look for in this scenario. A number of answers will be given. You can choose the correct answer and then read on to see if you got it right.

In the first scenario, we see a child at a party who burned his hand while blowing out candles on a cake. There was a slip, a stumble, and the child got a minor burn when their hand contacted one of the candles. This is a relatively simple situation, but what is the first thing you think about when you see a child with a slight burn on their hand like this? What is your next course of action as the only adult at the party? Do you:

1. Assess the extent of the burn before deciding how to proceed to treat it
2. Immediately splash cold water on the burn without thinking about what it is

or how severe it may be. Speed of action is paramount!
3. Put a plaster on the burn because needs to be protected from further harm
4. Panic and call a medical practitioner to ask them for advice

What is the correct course of action in this scenario in your opinion? Do you act before you know what the extent of the injury is? Do you panic? Or do you assess the situation to determine what kind of treatment this child requires before applying the relevant treatment? The correct answer is, of course, the first one. You need to decide exactly what degree of burn is in play before deciding how to treat it. You can't simply treat it without knowing what it is. Examine the hand and make your decision for a course of action from there. Let's look at some more scenarios.

In this next situation, you're on a hiking trail and your friend has suddenly cried out that they've injured their ankle. It's a forested area and there are many rocks and trees

around. They stumbled over a rock and you're unsure if the ankle is twisted or whether it is broken. So, what do you do when faced with the possibility that the ankle might be broken? Bear in mind that you have no access to any kind of medical equipment that would help you to determine if a bone is, in fact, fractured. You need to make a quick decision. Do you:

1. Assume that the ankle is sprained and help your friend get to their feet quickly and walk it off
2. Remove the boot, support the ankle gently but firmly in the possibility that it might be broken and create a splint for it
3. Assume that the ankle is broken and wrap it as tightly as possible
4. Put an ice pack on the ankle

Let's consider what the situation is. You don't know what the state of the ankle is so you can't make your friend walk if they are unable to do so. You also can't wrap the

ankle. In fact, you can't administer treatment if you're unsure as to the status of the ankle. Your best course of treatment is containment of the injury until further help can arrive. If the injury improves slightly over a few days or a period of time, then you would know that it wasn't as serious as it first appeared. However, with no way of being sure, you can't make any assumptions as this may lead to further damage of the already injured ankle. You want to remove the outer layers that are preventing you from seeing the injury first. Then you can make a decision about what to do. Make sure that the injured part is supported without shifting it too much. If you move the injury around, you might run the risk of damaging the injured part further.

In this next scenario, we'll examine a situation in which a girl has been trapped inside a burning building. As well as suffering multiple injuries, she has also suffered from smoke inhalation which you can observe by looking at her condition. The issue is, with multiple injuries affecting her, what do you as a first responder do to help

her? What is your priority at this point? You have to take a look at the victim and assess exactly what her highest needs are. Bear in mind, there may be injuries affecting her that you can't see. So, having made sure that the victim is safe from any harm and in a place where she can be treated safely, your next course of action is to do what? Let's look at some of these options:

1. Lift her onto a stretcher and get her to a medical facility with all due speed. They can check on her injuries in hospital.
2. Ensure that she is breathing regularly and steadily despite the injuries. Make sure that her heartbeat is regular and stable.
3. Treat her ankle that seems to be either twisted or broken
4. Treat her cuts and grazes

What's the best course of action in this situation? Well, you need to first prioritize what is most important to the patient's health.

What is a matter of life and death and what can be treated later? What will keep the patient alive a bit longer, and what kinds of treatment do they need to receive that is vital to their lives in the present danger that they find themselves in? In this case, because the young girl has been treated for smoke inhalation, it is your job to make sure that her vitals are fine. You need to do an assessment on her that will determine whether she is breathing normally and her heartbeat is fine, in spite of the shock. There is no sense in attending to her superficial wounds because they are not the highest priority. And the injured limbs, whilst serious, can be treated by more professional medical professionals. Your job is simply to make sure that she is alive and responsive so that she can receive the treatment that she needs. If she is not breathing or responsive, you can go ahead and administer life-giving CPR treatment and move her into the recovery position so that she is ready for the arrival of further and more professional medical attention.

In the next scenario, you've found yourself at

a campsite where someone was playing, swinging on a rope over the river, when it broke, sending them into the water below. Arriving on the scene, you find the still wet form of the victim lying on the dock next to the river. You immediately observe a few things. The person is in a state of unconsciousness. You want to start the process of CPR, but what do you need to make sure of first? Let's look at some of the options:

1. You kick the person with your toe in order to see if they are awake or not and to check for their reflexes
2. You listen to the person's breathing by putting your ear close to their nose
3. You throw cold water on the person while shouting loudly in order to wake them up and see if they are responsive
4. You pinch the person's face hard to see if they will respond to the pain

In this situation, what do you need to do in order to satisfy yourself that you can begin

the process of CPR or see that CPR is needed? The last thing you want to do is pinch or hurt the person. So, any actions involving this are off limits.

So, what did we learn throughout this process of looking at different situations and the problems that they present? What did you learn by looking at your decisions and comparing them to the correct decisions (if you chose a different option)? There are various reasons why people or first responders might choose a specific course of treatment for a victim that makes sense to them. But before you find yourself in a situation, be sure to educate yourself on the correct way to respond to a situation so that when you do eventually find yourself in it, you're ready to make the right decision. But how can one be sure that one is making the right decision or a decision based on emotions? Is there a standard for the decision-making process that one needs to make when one finds oneself in a situation responding to a medical emergency?

There is a system whereby you can assess a specific situation and ensure that you make sound decisions that are in line with medical health guidelines. This system is known as the five ABCDEs of treatment. I understand that sometimes when you find yourself in a difficult situation, it can be tempting to forget the basics of first aid and how to treat someone in a difficult and stressful situation. You need a system that helps to remind us of the most important things when we are faced with such situations. As long as you can memorize the first 6 letters of the alphabet, you should be fine in these situations.

Let us examine what each of these letters stand for and what they mean. This is a mnemonic that means airway, breathing, circulation, disability, and exposure. What do these terms mean? They are terms that refer to the various processes that you need to go through in any given medical situation. Each of these terms refers to a specific aspect of injury that you need to check for in these situations, and they reflect the priority of what you need to check. The airway is the

most important aspect of life and thus must be assessed first. Breathing is next in terms of importance. You check the chest in order to determine whether a person is breathing. Circulation (or issues pertaining to the heart) is next in order of priority. “D” stands for disability which means you need to take note of any allergies or disabilities that the person has. Finally, the “E” stands for exposure. You need to remove the clothing from areas of the body that require it while still keeping the patient comfortable. And so, you continue on, checking each issue or set of issues on the list by adhering to the levels of priority as suggested. Let us imagine a hypothetical scenario in which you will need to use this system to check for various issues and injuries that might be present in the victim.

Your friend, Samantha, has taken a tumble into a gorge while off hiking. She appears to be unconscious and bleeding due to the fall. You need to assess the level of her injuries. So, in order to make sure that you make the correct assessment, you’re going to use the ABCDE system.

Before you begin your assessment, make sure that you have the consent of the person concerned, in this case, your friend. If she is non-responsive, make sure that you have the consent of her legal guardian or someone in authority who is responsible for her welfare. If you have exhausted all avenues and you have not managed to obtain consent and the person is unresponsive, you need to use your own initiative and examine her in the interests of her own health and safety.

First, check your friend's airway. Is it clear and free of any obstructions? In order to check the airway, you need to gently open her mouth and check inside. If there is nothing there, or you are still unsure, gently tilt her head back and listen for breathing.

Once you've checked that the airway is working correctly and is free of any obstacles, you can proceed to the next stage of the check, her breathing. So, what aspects of breathing are most important to be aware of? First look at the chest. Is it rising and falling? If you can't detect anything, place

your ear close to her nose. Can you detect any signs of breath? Make sure that you can feel her breath against your cheek. If you can't, it may be time to initiate emergency procedures such as CPR. If you can detect signs of breath, you can move on to the next stage of the assessment.

The next stage is the "C" stage or the circulatory stage. This is the stage in which you determine whether Samantha has had any kind of cardiac arrest or cardiac event. If she has, she requires very specific kinds of treatment. There are specific things that will alert you to the signs of circulatory issues with her. Is she coughing or groaning? Are there signs of movement in her limbs? There's a simple test you can use to detect if she has problems with her circulation. Having made sure that her airway is open, pinch the bridge of her nose and give two breaths into her mouth (as you would for CPR). Observe her chest and see if it is rising. If it isn't, check her pulse. If there is no pulse, perform 30 chest compressions. Wait and see if there is any change. If not, try again. If you sense

that she is breathing, move on to the next stage of the assessment process.

The next stage is the “D” stage or the disability stage. What does “disability” mean in this situation? Well, it means that you check for specific indicators that could highlight if Samantha has some kind of condition that could lead to a negative response to treatment. You also check if it was a disability that caused her condition in the first place. Did she suffer a blackout and collapse, which led to her fall in the first place? Could this mean that she struggles with low blood sugar or sudden drops in blood pressure? Does she have underlying health issues? All of this information, if you can locate it, will help you to understand her condition and thus treat her in the correct manner. Without being aware of this, you could misdiagnose her and potentially give her treatment that is less effective or treating the wrong kind of issue. Check her pupils to make sure that they are the correct size. Abnormally sized pupils could indicate some form of brain damage or paralysis. Take her

glucose levels if you're able to do so. Assess her level of consciousness and talk to her continually. This will be helpful in determining her responsiveness.

Finally, you will move onto the "E" stage which means the exposure stage. You may need to remove some of Samantha's outer clothing if you are going to be sure of her health status. Always remember to respect her dignity and keep her warm at all times. Make sure that she is protected and safe from harm during the examination process.

Treatment Plan Assessment

Once you have conducted this initial assessment, it is time to conduct what is known as a head-to-toe assessment. This involves a specific and detailed check of various parts of the anatomy for the purposes of checking the victim's status and the presence of any specific injuries that may be affecting them.

This assessment can be conducted on others as well as on yourself. There are no limits in

this regard. If you find yourself in a survival situation where you are injured, you can definitely use this system to determine what injuries you may have.

There are a number of words that we can use to guide us during this treatment plan assessment. These words are basically based on our five senses: looking, listening, feeling, smelling, and asking (trying to gauge responsiveness through questions).

Formulating a treatment plan is largely based on the situation surrounding the survival context, the patient, and their injuries as well as their medical history. Even in a survival situation, you should quickly formulate a plan and a set of goals that you want to achieve. In the case of Samantha, what do you want to achieve with her? If her injuries are too serious for you to handle on your own, you need to adopt a policy of containment. You need to make sure her injuries don’t get any worse and that she stays alive until you can access more professional medical care. Your goal in this case is not to try to cure her. You

need to get her to a place where she can receive the care she needs, and she needs to survive. Always set realistic goals for yourself in these situations.

Let’s look at what it means to conduct a head-to-toe assessment. Let’s start by examining what it means, in brief. When we talk about a head-to-toe assessment, we’re talking about a general assessment of someone’s health. It is not such a detailed look, but it is a checkup of certain aspects of human anatomy that will enable the first responder to determine the best course of action to take. There are also various types of assessments that you can do based on the situation you find yourself in.

Complete health assessments take into consideration all factors related to the patient’s immediate health and their past health issues. All factors are considered when administering first aid.

The problem-focused assessment is one which works according to specific goals depending on the situation that is currently

being worked under. For example, in a survival situation where time is of the essence, the medical examination will take this into consideration when determining the best treatment.

In both of these situations, you'll be looking for specific signs that will point you towards both the patient's condition and the best form of treatment for them. The following section is a guide to observing the vital signs of a person.

Checking Vital Signs

The first thing you need to know is what the different parts of the body are that need to be

examined. These are the head and face, the shoulders, the arms, the abdomen, the pelvis, the legs and ankles, and the spine. So, what do we look for in each of these situations?

First, we start by checking the pulse & general condition of the patient, whether they are conscious, breathing etc. If they are. Then we perform a full body examination to ascertain any injuries. If they are not. We carry out CPR until the patient is stable.

Firstly, we'll start with the head and face. You need to make sure that there are no fluid emissions coming from anywhere on the head and face. Make sure that there are no visible fractures or injuries and that the eyes are open and responsive to light. Check for any deformities around the head and neck area.

The next region is the shoulders. Check for any fractures, misalignment, or unevenness which might indicate the presence of a scapula fracture or any other kind of fractured bone in the shoulder or the presence of a dislocation.

In the case of the arms, you need to check for any sign of deformity or any sign of an open wound that would indicate a broken bone. Check both the upper and lower arms for signs of distress. Make a note of any possible bites or stings. Also make a note of any tags on the arms that would indicate a possible condition that the person struggles with. Having prior knowledge of what some of these tags mean is also helpful in these situations. Different kinds of tags can contain different kinds of information that needs to be understood. In many cases, these tags will also contain personal information for the person concerned that can be used to contact relevant parties.

When examining the abdomen, you need to look for soft spots which could indicate the presence of internal bleeding. These spots are very distinctive when they are felt, and they can be identified more easily if you have prior experience in these situations. Check your hands and fingers when you’re doing the examination. Do you notice the presence of any blood or bodily fluids? This could be the

sign that there is internal or external damage to the abdomen. In addition, check and see if there are any abdominal deformities which would indicate damage.

The pelvis, in healthy people, would be uniform. If it is damaged, you'll notice unevenness in the legs and the abdominal area. You'll perceive that there is a difference in the way the hips and legs are aligned. This is a surefire sign that there has been some form of pelvic damage.

Check the legs and ankles for signs of scars, open lesions, and deformities which would indicate the presence of a break. Some leg injuries can be hard to detect if they are hidden deep inside the leg structure, so always be careful you are identifying the signs of damage correctly.

The spine is a critical part of this examination because if it is damaged, permanent paralysis or even death can occur. It is vital to be aware of the signs of a damaged or impacted spine. If you see any sign of misalignment or deformity, or if you suspect that there is

damage based on the way the patient is lying or positioned, then do not shift them too much. Be careful when examining the spine and do not press down too hard on it.

Preparing a Treatment Action Plan

Once you've determined what the issues and problems are, you need to formulate a plan that will allow you to address this situation and treat the patient to the best of your ability and in accordance with sound medical principles. A treatment plan must be comprehensive and it must take into consideration all possible variables that one could expect to find in different survival and wilderness first aid scenarios. In the sections after this one, we are going to examine specific conditions and ways that these conditions can be treated.

5 Essentials of First Aid Outdoors

There are several key parts of first aid that having the knowledge of will make you a more effective first responder. These key areas are controlling the spinal area, having a

knowledge of how to make and apply splints and wraps while in the wild, the ability and knowledge of how to stop bleeding, and the ability and knowledge of how to treat heat exhaustion and hypothermia. Having knowledge in these key areas will really help you to be equipped for any and all situations you might find yourself in.

Controlling the spine is a phrase used to refer to the management of an injury of the spine and ensuring that a damaged spine does not (if it has not already) lead to permanent damage or paralysis.

The chances of you having this level of equipment in your survival situation are slim. However, note the prone body position & that is what you would be looking to achieve with items nature would have to offer in your particular survival environment. Total immobilization of the patient from head to toe. Let’s look at a hypothetical scenario.

Every year, many children and adults alike enjoy the fun and freedom of a trampoline park. However, there are also many accidents in this surprisingly hazardous activity. Trampoline-related accidents can run into the thousands per year. Most of the injuries that occur as a result of these accidents are spinal injuries, caused by a jumper missing the trampoline as they come down and either landing on the supporting springs or completely missing the trampoline altogether.

Because of these accidents, spinal injuries are common and thus must be treated with the utmost seriousness and care. Say you were at one of these parks and you encountered someone who had just injured themselves in this way. What would you do in this situation? This is where knowing how to manage spinal injuries comes into play. Unlike other parts of the body such as the arm or leg where, getting it wrong might adversely affect the injured party without endangering their life, a spinal injury is a very serious thing indeed. It is therefore paramount that you know exactly what the

steps are in order to stabilize the person and any spinal injury they may have.

Step 1 involves moving the patient as little as possible. The last thing you want is for any potential injury to turn from being potentially dangerous to being actually life threatening. Your actions during this time are very critical.

Let us look at the process.

- First, you need to reassure them that help is on the way or that they will be helped. If they are responsive, tell them not to move at all.
- Next, you support their head and neck. Ensure that their head and neck are in a straight line and that there are no obstacles where they are lying, as these could potentially hinder them from lying flat. If the patient is lying on an uneven surface but cannot be moved, try to make them as comfortable as possible. To move a patient who is in this position, there is a technique you

can try. Kneel or lie behind the patient's head and support their head with your hands on each side, next to their ears. Do not cover their ears or they won't be able to hear you. In this position, hold up the patient's head until medical help arrives.

- Place rolled up towels or blankets under or near the patient's head as a way of supporting them until help arrives. The most important thing is that the patient's head must be held in a neutral position until help eventually arrives.
- Keep monitoring the patient's vital signs and breathing until help arrives.

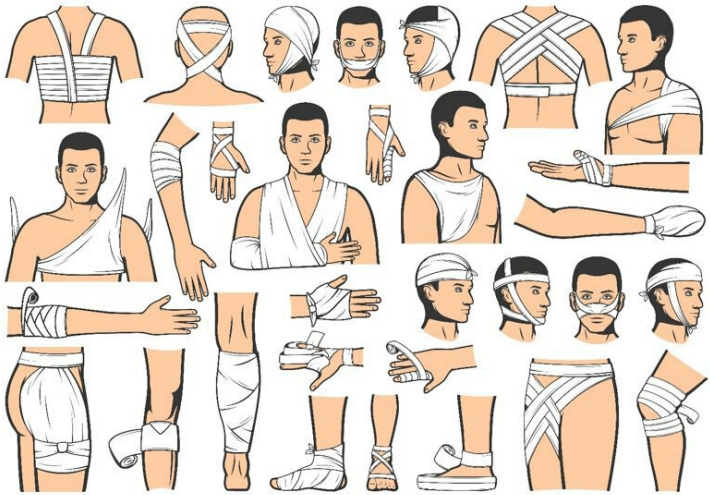
These are the initial steps that one needs to take in order to ensure that the spine is managed correctly in order to ensure that you avoid exacerbating any existing spinal injury.

The next principle we will need to focus on is how to wrap or bind up wounds when faced with medical and survival situations in the wilderness. It may seem like a simple task but

it is actually a lot more complicated than it sounds, and there are various things you need to be aware of. Binding a wound is about so much more than just placing a dressing on it. You need to be aware of what kind of wound you are dealing with, what kind of treatment it needs, the extent of the damage caused by the wound, and many other factors. You also need to consider what material you have on you to make sure a wound is securely bandaged. You may not have access to bandages. You therefore need to decide what material would work best, if for example, a wound is bleeding. You need absorbent materials, etc.

However, more than materials, you need a system for determining how to bandage a wound. Fortunately, such a system exists and is effective. This system is known by the acronym RICE. Let’s look a little bit at what the letters in this acronym mean. These letters stand for rest, ice, compression, and elevation. Each step needs to be followed in order to adhere to safe and sound medical guidelines for dealing with both open and

closed wounds. But what do each of these terms refer to and how can they be used in any survival context?



Let’s start with rest. The key to dealing with any wound is to give it as much time as it needs to recover. That means avoiding moving the injured part as much as possible. This also means that you rest the part after it has been injured by taking care of it and making sure that it is protected against further injury. By doing so, you’re avoiding delaying the healing and even making sure that the

healing process is sped up in some cases. Always give a wound time to breathe and recover.

The next thing you need to be aware of is ice. What do we mean when we refer to ice in the context of an injury or an open wound? Ice is a substance or material that can be used to reduce the swelling on a ligament, joint, or muscle. Ice has properties that allow for the reduction of pain, inflammation, and tissue damage. Ice should be applied to injuries for a period of about 10 minutes at a time and no more. Prolonged exposure to ice will cause tissue to start breaking it down. Overuse of ice can also cause frostbite. Ice helps to decrease circulation to an area and compresses blood vessels, thus stemming the flow of blood. It can be useful when you want to stop a wound from bleeding heavily. It is a natural astringent. Let us look at how you apply an ice pack to a wound.

- First, fill a bag about half full with crushed ice.
- Next, wrap the ice pack in a cloth to

protect your skin and the injury from direct contact with the ice.

- Put the ice over the affected area for about 10 to 20 minutes. Check the skin during this time for any signs of discoloration or blistering. If you notice any changes, remove it immediately and treat the affected area by warming it again.
- Throw the ice pack away once used.
- Apply to the affected area as many times as you require. There is a school of thought that you should only use ice packs up to 4 times a day. When in doubt, consult a medical practitioner so that you can have a guide as to how many times ice packs can be applied.

Once you've applied ice and you are using it routinely, you can also consider the importance of compression in a wound. Compression means that you press tightly down on an affected area, thus restricting the flow of blood to an injured area. One of the easiest ways to do this is to apply a

tourniquet. This will obviously close off the blood vessels, capillaries, and arteries around the wound and prevent blood from flowing to the area, thus stopping the flow of blood out of the wound. However, it is most important to know how to apply bandages, so let's look at a few of the steps of compression as well. The next section will delve more into how bandages should work and how to apply survival treatment with bandages when you are in the wilderness effectively. For now, the issue is how to administer compression treatment effectively. Compression at its basic form is just putting pressure on the wound and then binding it using a wrapping of some kind. This keeps the wound safe and secure and stops the injury from getting debris in it as well. So how does one go about compressing a wound properly? Let us look at some of the steps. Bear in mind that compression is a kind of dressing that you put over the wound, without necessarily being the bandage itself. The bandage is only used to hold it in place over the wound.

Bandage around objects.

- First, make sure that the wound or affected area is clean and free of dirt and debris. This is important to avoid the occurrence of infection.
- Next, hold the injured area steady while you bandage it.
- You can start by using an elastic bandage or an Ace bandage or wrap. These are good because they have flexibility. Try not to wrap the bandage too tightly around the injured area as this can cause the blood flow to be cut off entirely, and it can lead to other issues.
- Then, you need to know how to put the bandage on. Start by unrolling it and

cutting it to the correct size that will go around the injured part, be it an ankle, knee, bone, or other body part. Always take into consideration what you're going to use the bandage for before cutting it to size. Let's take the example of an injured foot that is about to need compression treatment in the form of an Ace bandage.

- You're going to position the foot so that it is at a ninety degree angle from the ankle.
- Next, keeping the foot as steady as possible, wrap the bandage around the ball of the foot, making sure that it is not too tight. Starting from the ball of the foot, continue to wrap until you reach the arch of the foot. Keep it completely covered, but still allow for a little movement. Don't worry if the position of the foot seems initially awkward. When you wrap, you're going to allow for a little movement and flexing in the foot and ankle.
- Continue wrapping from the foot to the ankle, moving as you go to the achilles

tendon. Make sure that the heel and the arch of the foot is also bandaged. If you notice the bandage start to slip down the heel, do not be concerned. This is normal when wrapping a foot and it provides a little exposed skin so the foot will be able to get some air.

- Finishing wrapping the ankle by continuing past the ankle bone. Wrap the top and the bottom of the bandage in order to hold it lightly in place. At this time, remind the patient to limit the mobility of the affected limb so that the bandage does not come loose.

Overall, the principle of compression is that you lightly pressure the affected area, restricting the flow of blood but not cutting it off entirely. You want the wound or affected area to be covered and protected, but not damaged in any way. There is always a balancing act between these two things.

The next essential principle of RICE is elevation. What this means is that the injury has height so that blood flows naturally back

into the body towards the heart and not the other way round. Blood flow in the body is affected by gravity like everything else in the universe. It therefore stands to reason that you want to keep your injured limb (or the limb of the patient) above your heart. So, how do we elevate the affected limb? We need to ensure that the affected part is in the correct position, firstly.

- First, get the person or patient to lie down flat on a comfortable surface if possible.
- Then, get a couple of pillows and place them under the affected limb. The angle should be around 45 degrees or at least raised above the heart. Make sure that the limb is in a secure position during this process. Also, make sure not to move the affected limb too much as it may aggravate the injury.
- Keep the elevated limb in the same position for a period of about a couple of hours. Do not try to hold the position for too long though. Vary the position

of the limb at times so that the blood can flow evenly and naturally to the area. If the person experiences discomfort while in this elevated position, immediately lower the affected limb and try again in a short period of time.

The next thing we need to consider in the compression state is if a wound is bleeding. Knowing how to stop bleeding is a crucial step in the RICE process.

- The first step is to put pressure on the bleeding area. At this point, you need to determine how severe the bleeding is and what kind of pressure is required. If the wound is only small, less pressure is required and the injury will probably not even require a bandage or dressing. These kinds of wounds are best left to dry and heal in the open air. However, if you encounter a wound that is bleeding more heavily, then you need to act quickly to prevent the loss

of blood. So, what do you do in the case of heavy bleeding?

- Keep the victim calm and get them to sit or lie down. Make sure that you use an absorbent material such as gauze to stem some of the initial blood flow. You can use any kind of material such as a cloth or rolled up bandage to pressure the wound initially. If blood soaks through the initial material, apply more material to the area and keep the initial material on the wound.
- If there is an object or foreign body inside the wound, do not remove it as this can cause even more damage. Instead, package the material around the wound as much as possible and keep pressuring the affected area.
- When the bleeding has subsided, clean the area and add antiseptic cream.
- Use sterile bandages and a dressing to keep the wound from being infected.
- Make sure to keep the affected part elevated as much as possible.

These stages in the RICE process are intended to help you manage an injured limb, particularly in the case of soft tissue damage. By making use of these techniques, you can make the patient more comfortable and hopefully protect the affected area from further harm.

Heat exhaustion is another problem that is encountered frequently whilst in the wilderness. It can affect either you or another person. But what exactly is heat exhaustion and what are the symptoms of it?

Heat exhaustion is a condition whereby the internal temperature of the body is too high and various components of the body stop working properly as a result. The only way to restore the body to normality is to reduce the internal temperature of the body. Heat exhaustion is also the body's response to the loss of water and salt. When this occurs, certain functions within the body are thrown off. This creates serious health issues. Symptoms of heat exhaustion include dizziness, headaches, fainting, confusion, and

nausea. If first aid is not administered, more serious symptoms could occur.

There are two main ways to deal with heat exhaustion. One way is to keep yourself as cool as possible. The other way is to deal with it should you ever find yourself in a position where you are suffering with it or if someone you encounter is suffering with it. The ways to deal with this condition are simple. You need to rest in a cool place, and keep yourself calm. Take in cold fluids if you are struggling. The reason you need to deal with heat exhaustion is that it might be a precursor to other more serious ailments such as dehydration. When you're in a hot environment and you're in the wilderness, make sure you are drinking water constantly.

Finally, we'll examine the essential skill or key skill involving the treatment of hypothermia. This is a condition in which the internal temperature of the body gets too low.

- First, move the person out of the cold and try to get them into a warmed area. Take care of any other external and additional injuries they may have at this time if possible.
- Handle the person with care. You never know what kinds of other issues or injuries they may be harboring.
- Remove any wet clothing.
- Wrap the person up in blankets.
- Make sure that the person is not in direct contact with cold ground as this can make their condition worse.
- Make sure that the person’s breathing

rhythm is normal and not irregular in any way. If breathing is irregular or absent, initiate CPR immediately.

- Provide the person with warm beverages if possible.
- Make sure to give compression treatment with warm and dry compresses. This can consist of warm water in a hot water bottle or a plastic bottle. Don’t apply this heat to the legs and arms as this could lower internal body temperature even further, causing potentially fatal results.

Principles of Survival First Aid

Overall, when one is confronted with a situation in which one needs to survive by knowing the most important techniques, what are these techniques and how can they be of use to us in stressful and traumatic circumstances?

Firstly, always remember to stay calm and don’t panic. You have a better understanding of what to do if you keep your head in these situations. Next, make sure that you prepare in advance by educating yourself and being mentally prepared and ready for any situation you may encounter. Some situations may appear distressing and unfamiliar. But, if you have a thorough grounding in the basics of first aid, you can cope with almost any situation. The final principle is knowing what you have on hand to use. Being aware of your

materials and supplies can help you to make use of them to the best of your ability. Knowing what you have on hand will allow you to plan ahead in many situations.

3

STRAINS, SPRAINS, AND DIY SLINGS

Soft tissue injuries are common in wilderness and survival situations and need to be prepared for adequately by training yourself to deal with them and by having the right kinds of materials on hand to deal with them. This section deals with the differences between strains, sprains, and other kinds of soft tissue injuries, how to make splints wraps and other kinds of bandages based on what materials you have, and it gives a step by step process on how to easily treat other kinds of soft tissue injuries.

SOFT TISSUE INJURIES

Let’s start by examining what soft tissue injuries are and what they are not. It can be hard to tell the difference sometimes. The best way to do this is through examining real-world experiences.

Once, I was walking through the mountains with a friend and we stopped to snap pictures of the gorgeous scenery. I was so engrossed in my activity that I took my eyes away from

the situation and instead focused on the bright blue sky, the scent of pine needles, and the lush greenery around me. My friend, Mark, had stopped to take something out of his shoe. I wasn't paying much attention to him. As I moved to climb onto a higher rock so that I could see the scenery better, I heard a sharp cry behind me. Turning, I saw Mark now lying on the dusty path, clutching his ankle in pain. His face was pale. What had happened? I asked him what was wrong, and he said that he'd stepped on a loose stone and completely turned his ankle. There was a nasty bruise on the ankle already, and it was swelling badly. It was a valuable lesson to me, personally. Injuries could and often did strike at any time, without warning. One needed to be prepared at all times. What this also taught me was about the nature of soft tissue injuries. Looking at Mark's injury, I immediately noticed a few things about the ankle that helped me to understand what kind of an injury I was dealing with:

- Firstly, there was swelling on the ankle.

This kind of swelling is common with soft tissue injuries.

- Secondly, Mark was unable to put any weight on the injury. This is common in soft tissue injuries and it can often lead to the injury being confused as a break or fracture.
- Thirdly, Mark could not move his ankle at all. This limited range of mobility is common with soft tissue injuries.
- Fourthly, Mark experienced both cramp and weakness in the affected area.
- Fifthly, there was a bruise or mark on the site of the injury. This is common in all kinds of tissue injuries and indicates that there has been some kind of rupture beneath the skin that is causing this kind of internal bleeding within the injured joint, tendon, or muscle.

Overall, soft tissue injuries are characterized by swelling, pain, limited or no mobility, bruising and tenderness, and inability to use the injured part. Now, let’s take a look at why

such injuries happen. What are the situations we can often expect to see these kinds of injuries?

How Do These Injuries Occur?

Soft tissue injuries can occur in many different kinds of situations, but they are especially common in activities where stress is being placed on the joints and where there is a chance that a joint might be exposed to a sudden change of movement at any moment. This violent exertion or stress on a tendon, muscle, ligament, or joint may cause it to be damaged severely leading to a soft tissue injury. Soft tissue injuries can also occur when a body part is subjected to too much stress or use. As with all kinds of machinery, the "machinery" of your body is susceptible to wear and tear over time. If it is used too often, the various components of that machinery begin to wear out. It is then that injuries can occur. Soft tissue injuries can occur when muscles, joints, ligaments, and tendons aren't given enough time to rest after a prior exertion. If you try to exert the part

that has been stressed too many times, it will get injured.

These injuries can occur within situations such as sporting activities, where all parts of the anatomy are under stress, hiking, swimming, walking, running, and any other activity that is high intensity. Overall, though, soft tissue injuries can occur at any time and strike from out of nowhere if you're not being careful. That is why proper care of one's muscles and joints is important. So, having said all this, let's look at how to recognize the signs and symptoms of a soft tissue injury so that you can distinguish it from other kinds of injuries such as breaks and fractures.

WHAT ARE THE SYMPTOMS OF SOFT TISSUE INJURIES?

I've taught on the subject of sprains and strains for many years at the community center. It is one of the most commonly confused types of injury. But it is of the utmost importance that you recognize the

signs and symptoms of each type of injury as sometimes it can be difficult to spot for the casual observer. In this section, I'll help you to identify some of these signs and symptoms.

The difference between a strained or sprained ankle is that a strained ankle (or any kind of strain) means that the muscle attaching to the bone has become injured. Think of it in this way. You can strain the muscles in your calf or thigh. But you cannot sprain these muscles. This is because a sprain refers to damage done to the ligaments, cartilage, muscles, and tendons that hold bones together. So, overall, a sprain occurs between the bones. Strains affect the muscles themselves. Having said this, what are symptoms of each of these injuries? Let's take a look.

The Differences Between a Strain and a Sprain

The signs of a sprained ankle will vary depending on the severity of the injury:

- A sprained ankle will be painful
- A sprained ankle will also be bruised and swollen
- You will have limited ability to move the affected ankle
- You might hear a click, snap or pop every time you try to move the injured part

The signs of a strain, however, are a little different although there are some similarities:

- There will be pain in the muscle and in the affected area surrounding the muscle
- There will be bruising and muscle weakness
- You might experience muscle weakness and spasms

Overall, the differences between the types of injuries are most commonly defined by the areas in which they are found, although they are similar in many respects.

So, what are the risk factors with these kinds of injuries? What are the situations you can expect to find them and how can you avoid these situations?

- High intensity sports can really be a risky exercise and they are very stressful on your joints, muscles, and ligaments.
- Walking on uneven and rocky ground needs to be done with care as one miss-step can cause a very serious injury indeed. Always remember to wear the correct shoes when you go out hiking as they can save you a great deal of trouble. So, before you go out, consider how you're going to look after your feet while you're on the trail. Sometimes, you might not have a choice. You will have to make do with whatever you can find to put on your feet. Whatever you decide to do, make sure that your feet and ankles are always protected while walking or hiking.

- Overusing a muscle or joint can also lead to these kinds of injuries. In particular, your ankles get a lot of work if you're a heavy walker. Always make sure that your walking style is as ergonomic as possible and that you don't put unnecessary pressure on feet and ankles.
- Environmental factors can cause risks to your ligaments, joints, and muscles without warning. You may be walking near ice and suddenly find yourself stumbling and injuring yourself, even though you had no intention of putting yourself in danger.
- Fatigue can cause you to make decisions that sometimes put your body at risk. Always be m0re careful about your actions when you're feeling tired.
- Ill-fitting clothing, footwear, or equipment can lead to injury. Always make sure that you're using the best quality that you can possibly afford.

Remember the RICE principle? If you find

yourself suffering with a soft tissue injury or if you encounter someone who is suffering with this, you need to make use of the principles found in this acronym. Each of these principles will help you to manage the soft tissue injury more effectively.

Let's go over what the acronym stands for once again to remind ourselves. The "R" stands for rest. All soft tissue injuries need to be managed and rested effectively. The "I" stands for ice. Making effective use of ice over an injury can help to reduce swelling and pain. The next letter stands for compression. Some kinds of soft tissue injuries (most, in fact) require there to be a bandage or some kind of dressing in order to maintain control of the wound and protect it from further damage. The final letter stands for elevation. Elevation means that an injury is positioned in such a way that it allows for effective blood flow away from the injury and towards the heart. This puts less pressure on the injury.

Having looked at this acronym, one can also

add another letter to the word RICE. This is another aspect of injury management that is sometimes added to the set of principles to make the word “PRICE.” So, what does the “P” in PRICE stand for? It stands for protection. Protection of an injury can mean many things. But in this case, it means that an injury is shielded from harm by the use of support. If the injured part needs to be used, it also needs to be protected. For example, if the patient needs to walk, they can make use of a pair of crutches in order to protect the damaged limb. Protection means that you do whatever it takes to make sure that the injury does not get any worse. We will examine the actual treatment of soft tissue injuries later on. But for now, the RICE or PRICE set of principles can be used to manage the injury and prevent it from getting worse. In addition, because the “P” comes before all the steps, it means that the protection of the injury is paramount and therefore should be attended to before the other steps. The “P” in “PRICE” is added when there is possible danger to the injury and a specific need to make sure that it is protected.

TREATMENT OF SOFT TISSUE INJURIES

We now come to the most important part of this section which is learning how to treat soft tissue issues themselves. Instead of managing them, we are looking for ways to help them heal a lot faster. This means that instead of adopting a more defensive approach to the treatment and management of these injuries, we are now actively trying to find ways to get them to heal faster.

There are three initial stages in treatment which we are going to look at here. Each of these stages details a different phase of the treatment and healing process. Each phase or stage will require different kinds of management and control. As the injury progresses in its healing, it will require less and less management. In the early stages, more management and control are required. It is up to the person managing the injury to decide how much the injury needs to be managed at that particular point.

Stage 1

In the first 24-72 hours, it is vital that you protect the injured area, be it your own injury or someone else's. During this time, you need to gain an accurate diagnosis and find out exactly what is wrong with the ankle. It is after you've assessed the injury properly that you can begin to set a timeline for recovery. Follow the PRICE system and treat the injured part as gently as possible. Pain-free movement should be encouraged as much as possible to prevent the injured area from becoming atrophied. Movement is key, but it needs to be done in a manner that is as safe as possible.

Stage 2

In stage two, swelling will begin to reduce and normal mobility will begin to return. It is during this treatment phase that you'll begin to put a little weight on the injured area to test out the extent of the recovery, but no more than that. The process of healing has only just begun and needs to be respected. Take things easy and slow and allow the injury to

progress in its healing stage at a natural pace.

Stage 3

Stage three is where you begin to return to more normal movement. There may still be some stiffness and soreness, but this is more easily coped with. The swelling has all but disappeared and the ankle or injured part is beginning to show the signs of healing. Itching deep within the injured part may occur as blood cells flood the affected area, causing the growth of new organic material. As the injured area heals, the deadened nerve cells are replaced with newer and healthy cells, thus causing this sensation of itching. Treat the injured part with caution, but slowly begin to ease it back into normal life. These are the three main stages of treatment and healing.

Arm and Ankle Injuries

It is worth noting that there is a difference between arm and ankle injuries and how they should be managed. In one case, obviously, there is more weight being placed on the

affected area. In the case of arms and hands though, this is not so difficult. However, having limited mobility can still create tremendous problems for patients with injured arms. When encountering these injuries in wilderness and survival situations, there are certain considerations you need to make depending on what the nature of the injury is and the part of the body that is affected.

First, determine what the nature of the situation is. Is it too dangerous to help the patient effectively? Be aware of any and all danger that surrounds the area before helping the person with their injury. Next, determine whether the patient needs any kind of urgent medical help. This would be the case particularly in times when the patient is bleeding heavily.

Once you've assessed the status of these two important issues, it is time to see what you can do to help the patient. The first way you can do this is by constructing a sling or bandage to support the injured limb. By doing

so, you're ensuring that the patient at least does not have to put any weight on the injured part.

A Sleeve, a Rope, and a Sheet Bend

The first thing you need to be aware of is how to construct different kinds of bandages. Simply knowing how to construct one kind of bandage is not enough if you're going to face a variety of different situations. The first kind of bandage that we will examine is called the sock arm bandage. This can also be called the sleeve bandage. It is a bandage that fits over the entire arm and supports it like a sling. These kinds of sling type bandages are useful in keeping arms in particular in a specific kind of position and preventing injuries from shifting.

Sometimes, you might not have access to the bandages you need in order to wrap the wound or injury correctly. If you have to improvise, you can make use of your own clothing to bind the injury. One of the ways you can use your own clothing is to create a soft sling using your sleeve.

- Use your own coat or long-sleeved shirt to create a bandage by loosening the sleeve as it comes down past your hand.
- Tie the end of the shirt sleeve together so that it is closed at the end.
- Tie the end of the sleeve to a rope and pass the rope around the back of the neck of the patient (or your own neck). Ensure that the other end of the rope is attached to a sheet bend (which you can attach to the shirt sleeve itself).

This sleeve-type bandage is very useful when you don't have anything else to use, and it can support the injury for a sustained period of time. Plus, it can be made from whatever clothing you happen to have available. Let's look at other kinds of bandages.

A Bandanna or a Triangular Bandage

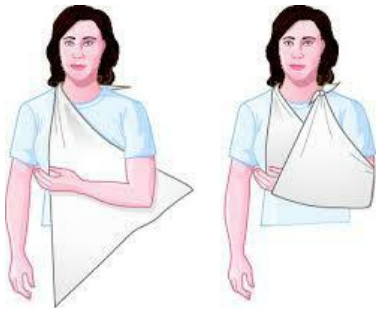
The next kind of bandage you can make is called a triangular bandage. This is a bandage that can be used for wrapping around an injury that is in need of support. The

triangular bandage fits under the injured limb like a sling and helps to support it.

So how does one apply the triangular bandage? The first thing to note is that there are two separate bandages you need to have. One is known as the triangular boundary and the other is known as the roller bandage.

- To treat the shoulder: Place the center of the roller bandage at the base of the neck on the injured side of the body. Fasten it just forward of the opposite armpit side.
- Slide the apex of the triangular bandage under the roller bandage at the base of the neck and bring it over the shoulder and the affected arm.
- Bring the two ends together around the arm and tie them.
- Secure the apex of the roller bandage by either tucking it in or by fastening it with a safety pin.

If necessary, sling the arm after applying the roller bandage.



This kind of bandage arrangement is for shoulder injuries. What about the lower arm or other injuries? There are similar bandage arrangements for this. You can make a splint made of bark. What does this look like, you say? Well, a splint is just a piece of wood or

some other kind of similar material that is placed on an arm, next to an injury, to prevent it from shifting around and becoming worse. A splint is fastened in place and remains on the injury until it is healed.

- Wrap the limb in padding, bandages, or any other kind of material that you may have available to you.
- Next, find some strong sticks or bark and place them next to the wound so that they support it. Fasten these in place using string or line. Pass the one end of a line around the back of your neck and tie the end to the splint. Make sure that you don’t tie the end too tight as this could cut off the blood flow. All you are trying to do here is to support the injury, not restrict the flow of blood to the area.

Lower arm splint using clothing as the splint.

Overall, soft tissue injuries can occur at any time when you're performing physical activity. Being prepared for them is the best way to deal with them. Only by being prepared can you adequately manage these injuries when and if they occur.

4

BLEEDING, BROKEN BONES, FRACTURES, AND DIY SPLINTS

This section deals with broken bones and how to manage them. The concept might frighten most first responses because of the severity of situations in which these injuries occur. However, there is hope. You don't need to fear dealing with these injuries. You can more easily deal with such situations by being prepared. We've examined strains and sprains. These are moderate enough injuries on their own. But what if the injury goes beyond just a simple sprain? What do you do if you can observe that the patient has actually suffered a break or a fracture? Never

fear. This section is here to help you get prepared adequately for such situations. Many people, when they see such an injury, would rush to get the patient to the nearest hospital. But what if you are many miles from such a hospital and cannot access the medical care and attention you normally would? What then? You need to have the knowledge and skills to deal with such a situation yourself.

There are two kinds of fractures you can expect to encounter in many different kinds of situations. From my perspective, I've dealt with many fractures before and it is critical to know exactly what fracture you're dealing with and how to deal with it. Once you know this information, the process of helping the patient becomes a lot simpler. It is important to administer the right kind of treatment for the right kind of fracture.

Open and Closed Fractures

There are open fractures and then there are closed fractures. Closed fractures are the type of fracture where the broken bone does not pierce through the skin or any surrounding tissue. These fractures are generally easier to set. Open fractures are fractures that are complicated by the bone which is broken piercing through the surrounding tissue and sometimes through the skin itself. These fractures are extremely serious and require urgent medical attention.

How to make a splint was addressed a bit earlier, but it is always helpful to go over how this process works in more detail. What is of particular importance is how to make splints.

We've looked at how to make a bark splint or a splint out of sticks. But there are also other kinds of splints that you might need to know about. One of the most important ones is the pillow splint. This is useful when you want to stabilize the injury by placing some kind of padding around it. The way to make a pillow splint is as follows:

- Place a pillow (or two pillows) or any other kind of padded material around the injured leg.
- Stabilize the outside of the padding with two sticks (just as you would if you were splinting the leg).
- Holding the sticks and padded material in place against the leg, duct tape the material so that it holds together.
- If pillows aren't available, you can use other forms of material. You can make use of clothes, padded jackets, woolen fleeces, any form of material that has some kind of insulation properties. You can even use thick socks or underwear. Anything similar can work in this

situation.

Open fracture of the Femur bone dressed & splinted.

So far, all the splints we've looked at so far have been splints for injuries and fractures that are closed. But what happens when you meet an injury that is open or a serious fracture that has penetrated the skin? You can't simply cover the injury and hope that it heals. It is not possible, and it would certainly be extremely painful for the person who is injured. You need to think of another way to

splint the injury. Fortunately, there are measures that you can take.

First, make sure that you stem the flow of bleeding in a wound. This will depend on the severity of the wound, and it needs to be done very quickly. Let’s quickly take a look at how to deal with the bleeding from moderate and severe wounds.

- Firstly, assess the severity of the bleeding. If a wound is bleeding lightly, a lighter compress might suffice while you work on the actual fracture. If, however, a wound is bleeding heavily, proceed to the following steps.
- If a wound is bleeding extremely heavily, apply a compress to the wound and hold it in place or secure it. If it gets soaked through, apply more material without removing the previous material. After a while, the bleeding should begin to clot, no matter how serious the injury. This might, however, take a long time in some

cases. Keep the pressure on the injury and allow it to clot naturally.

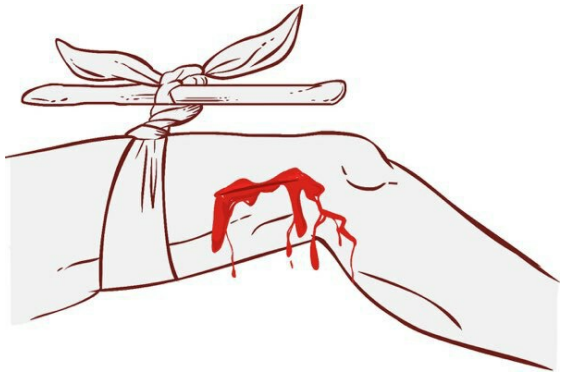
- Work around the broken bone that is visible. Avoid touching the injury while you try to stem the flow of blood. If you must touch the wound to clean it, touch it as lightly as possible to avoid discomfort to the patient.
- Calm the patient down and try not to stress them out. They should be seated or lying down at all times during this treatment.

There are a few other ways to stop bleeding. One of these is known as digital litigation. This is when you reach inside the actual wound (make sure that your fingers are sanitized and that you are wearing gloves) and hold the arteries and vessels closed using your fingers. Keep your fingers on the area until the bleeding stops.

Another way that you can stop bleeding is through the use of tourniquets. There are a lot of mixed opinions about the use of such tools, with many saying that it is unhealthy to

restrict the flow of blood to a wound. However, tourniquets have been tried and found to be healthy and safe to use in many medical procedures. Therefore, if you find yourself in a situation where you need to stop bleeding urgently, you might want to consider this option. Whatever you decide to use, make sure that you always follow sound medical guidelines and take into consideration the context of the situation.

Having determined the extent of the bleeding and managed to stem the flow, it is important to turn your attention to the broken bone itself. Firstly, you need to make sure that the wound is clean. Do not put pressure on the damaged area, nor attempt to remove anything that may be stuck in the wound. If the bone is jutting out, do not attempt to touch or interfere with it. Try, as lightly as possible, to clean away some of the dirt and debris if there is any around the wound.



The tourniquet must be loosened at regular intervals to prevent loss of limb through no blood flow. The patient MUST be monitored at all times when a tourniquet is applied.

What Is CSM?

When a fracture is open, it is logical to assume that there is also damage to the area surrounding the bone. This includes nerves, blood vessels, arteries, and even organs sometimes. Before you can treat the fracture, you have to deal with the possibility that there may have been some form of internal rupture or serious damage inside the wound that you cannot see. Because you cannot see inside the wound, you'll need to use other

methods to determine whether there was damage. This is done by a process known as CSM. What does CSM stand for? It stands for circulation, sensation, and movement.

Check the color of the limb near the injured area. Is it a different color than the rest of the skin? If so, it might indicate that blood flow to the area is being restricted or there is some change in the nature of blood flow to the area.

Check the pulse below or near the injury. If it's weak, you can likely assume that there has been internal damage that has affected the flow of flood to the area and thus the pressure is off from what it usually would be.

Perform what is known as a capillary refill test. Using your forefinger and thumb, press down on a toenail or fingernail of the injured limb. When the nail turns white, release the pressure and wait to see how long it takes to return to the normal color. If it takes longer than 2 seconds, it is safe to assume that internal capillary pressure has been affected in some manner.

Ask the patient if they can feel anything below the injury. If they cannot, this is a sign that the nerves surrounding the area have been affected.

Ask the patient if they can move their fingers or toes below the injury. If they cannot, it is a sign that paralysis might have occurred, temporary or otherwise. Urgent intervention is required at this point. It is time for the patient to be evacuated, if possible, to a medical facility. In the meantime, you can move on to direct and targeted help that you can offer (with the help of a little knowledge and skill).

Performing Traction

Traction is the means by which a fracture can be gently eased back into place. It is not the same as setting a bone. Setting a bone would require the bone to be cast and held in a specific position for a long period of time, or it could require the use of pins to hold the piece of a bone together so that they can repair themselves. Traction is simply the process by which the ends of a bone are lined up so that the pressure on the surrounding areas of tissue is reduced somewhat. This can sometimes help the surrounding blood pressure, capillary pressure, nerve sensation, and the other sensation in an area to return to normal. But how does one administer such treatment? Don't be afraid. It is not as complicated as it sounds. But you do need to be aware of certain things.

First, be aware of when traction is required. Look at the limb. Is it visibly deformed? Is there bone visible? Is the limb discolored? Are there signs of poor circulation and is it impossible to immobilize the injury in its current position? It's time to act urgently if any or most of these signs are apparent.

Don’t use traction if applying pressure to the area causes significant pain (this would also be a sign that the nerves in the area are working as they should). Also, don’t apply traction if you feel resistance on the distal part of the fracture (the part of the fracture that is furthest away from the body of the patient). Having gone over these ground rules, let us look at the process of applying traction.

- Make sure that the limb is stable while you perform the action. Make sure that it is in the position that it was found in (do not move the person around). If you can’t do this on your own, get a group of people to help you if this will make things easier.
- Grasp the limb that has been fractured above the affected area and as close to the body as possible. So, say for example, the femur was fractured. You’d grasp the area above the affected part, which, in this example, would be the part of the thigh which was closest

to the body.

- Once you've done this, use your free hand to gently grasp the distal part of the fracture (which is the part further away from the body). At this point, you should have one hand on one side of the fracture and one side on the other.
- Using gentle down movement, push the limb back into its normal anatomical shape.
- In the case of situations where the bone is protruding from the wound, using traction can help the bone to go back under the skin and return to as normal a position as possible. The end goal of traction is to try and get the ends of the bone to line up as normally as possible.
- Once you've managed to solve the problem of the protruding bone, you can then begin to dress and clean the wound as normal.

Checking CSM Again

Once the wound has been dressed, you can retest for the signs of circulation, sensation,

and movement. If the sensation in the limb has returned to normal and the victim can feel again, you can move on to the recovery and support phase of the operation. If there is still no feeling in the affected limb, you need to ask yourself why. What would affect the limb negatively? Is the patient wearing any jewelry? Remove it if so. Also remove any clothing that might be restricting the flow of blood to the area. The other problem might be that the bone has still not been restored to its proper anatomical position. If this is the case, then continue traction until the bone has been restored to its proper position. Once you've determined that sensation has at least been restored to the area, you can begin the next phase of the process. This involves the making of a splint to support the injured area. But what if you don't have a splint ready-made? You might need to make use of the resources around you.

Gathering Splint Supplies

Splints can be constructed of many different kinds of materials. A home-made splint can

consist of three different kinds of components: the splint itself, something to fasten it with, and the padding which will stop the splint from chafing and rubbing against the area. It is a relatively simple process to construct such a splint, and you can use almost anything that is robust and sturdy to do it. Let us look at some of the items you can use.

For the splint, ski poles, dry sticks, tree branches, tent poles, rolled up newspaper, small planks, and other similar items can all be used.

You can use anything to fasten the splint together. Duct tape, bandages, rope or string, bootstraps or laces, paracord, or any other kind of binding material can be used.

Finally, for the padding, you can use a pillow, padded material, jackets, clothing, socks, life-jackets, bedding materials, and many others. Padding is necessary because wounds can swell and become extremely painful. In addition, wrapping material around the injury before applying the splint can prevent the

occurrence of circulation problems. A padded splint will allow the injury to flex instead of continually bump against a rigid structure. Support for the injury is important, but it should not be so rigid that it becomes uncomfortable for the patient.

A good tip for splinting is to practice on an uninjured limb first. In this way, you can determine whether the splint will be effective at supporting the injury while at the same time allowing it to breathe and be relatively comfortable. You can work out the best position for the splint in this way, without causing pain and discomfort for the patient in the meantime. Having said all this, let us look at the way in which a splint can be constructed and the steps to making an effective splint.

DIY splint. Note the padding & magazine used for splint.

SPLINTING INSTRUCTIONS

When splinting, you're going to have to be aware that each bone or set of bones in the human body is different. Depending on which bone set you're dealing with, you're going to use a different and unique method of splinting.

General splint instructions have already been covered at length in this guide. But there are a few general instructions that you might also

want to know about.

In general, splints should be what is known as BUFF (big, ugly, fat, and fluffy). Use this set of terms to determine what your splint should look like. Make sure to use adequate padding, always.

Ensure that you use two splints, one on either side of the injury. This will offer more support than just one splint, and it will prevent the injury from shifting to either side.

Ensure that the splint is long enough to cover the joints above and below the injury. You definitely don't want the joint flexing. The arm should be held immobile so that the injury can begin healing, or at the very least, not get any worse. In the case of a broken arm, though, you do want the elbow to be bent and the arm to be set in a sling. This is the best position for the arm and the most comfortable for it.

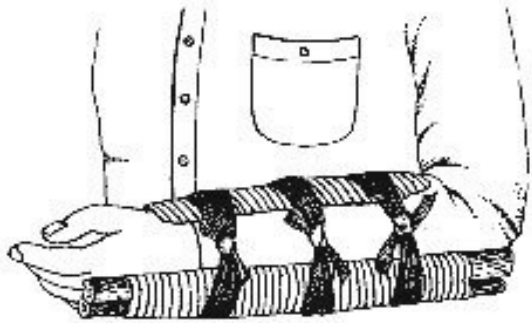
Broken knees and legs should generally be splinted in the position in which they were found. The same is true for elbows.

Make sure that you don’t cut off the circulation to specific areas by making the splints too tight as this can cause adverse results.

It is also important to look at how splints work for specific areas.

WHERE IS THE BROKEN BONE?

Lower Arm Splint



When splinting a lower forearm, ensure that the elbow is bent. This will make the arm easier to splint and it should prevent the arm from moving around and thus making the

injury worse. Place a piece of rolled-up material in the palm of the patient (0n the side of the arm that is being treated). What this does is keep the hand in a natural position and also helps to relieve some of the pressure and discomfort.

Apply padded splints on either side of the arm (while the elbow is in a bent position). The splint should be longer than the forearm. It should extend beyond the elbow and beyond the fingertips themselves on the other side.

Make sure that the splints are fastened in at least three different places. These fastenings should be above and below the injury and across the hand in an “X” shape.

Make sure that circulation is not cut off while applying the splint by checking the patient’s pulse.

Once the splint is in place, apply a sling to the arm to support it. The arm itself should be at around 90 degrees and the hand should be higher than the elbow to reduce risk of

swelling.

Take a long, wide piece of material and wrap it around the upper arm and body. Make sure this is securely fastened. Ensure that the patient is comfortable and there is no pain caused by this set up.

Finally, encourage the patient to move their fingers often so that circulation is kept constant.

Upper Arm Splint

An upper arm splint requires the elbow and arm joints to be immobilized. In this case, the victim might not actually need a traditional splint because their own body weight can give the arm the rigid structure it needs in order to stay in place. All you need to do is place the arm in a sling and tie it around (wrap it) using a swathe (or the piece of material referred to in the last set of instructions).

Gather two long pieces of material. They can be about 6 inches wide. You'll also need to get a triangular piece of cloth to use as a sling for the arm.

Place the arm of the patient inside the sling and ensure that the corner of the triangle lines up with the elbow and is supporting it.

Tie one piece of the material above the site of the injury and wrap it around the sling and around the body as well. Fasten it securely. Take the other piece of material and fasten it below the fracture site.

Lower Leg Splint

The lower leg splint is used to treat injuries of the tibia and the fibula. Make sure that the ankle is held in place, either by a SAM splint folded over the foot or held in position by being tied.

While the foot and ankle are in this position, make the splint. Ensure that it is not too long but that it is long enough to immobilize both knee and ankle.

Use four fastenings to keep the padding and splints in place.

Make sure that the ankle is slightly bent and keep it in place using a cloth or bandage. Cross the cloth over the top of the boot and then under the sole. Finish by tying it onto the ankle area of the boot so that it is secure. If additional support is still required, consider tying the injured leg to the non-injured leg. This will prevent the patient from walking but it can be an effective way to secure an injury against further damage.

Elbow and Knee Splints

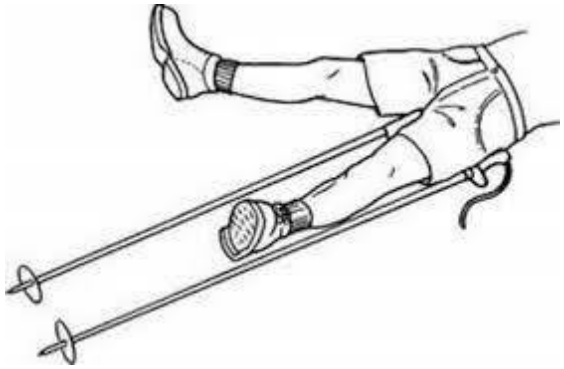
These injuries need to be splinted in the

condition in which they were found. Do not attempt to straighten the joint in order to splint the injury. You may end up causing further damage to the injury. The same principles apply to all joints, be they knees or elbows. You can use the same splinting techniques for both areas of the body.

With the joint in the bent position, get a padded splint and fix it to the arm or limb. Make sure that you place the splint diagonally beneath the joint so that one side is on the forearm side and the other is on the upper arm side. Fix the splint to the arm or affected part by using a wrist sling.

You can also try putting two boards, one on each side of the affected joint and at diagonal angles, on either side of the arm. Make sure that you fasten them securely.

Upper Leg Splints



Upper leg splints often involve the treatment of the femur. This is one of the largest bones in the human body and is considered to be extremely difficult to break. Nonetheless, it is possible. If the femur breaks, it will affect the position of other bones and muscles around. This is something to be aware of when splinting.

Even in the event that you try to straighten the bone through the process of traction, because it is so strong, it may overlap again with other bones and pull itself out of position. The only thing to do is to create a splint that will continually keep the bone in a state of traction.

Find two, long, sturdy and rigid splints. The length of one of these splints should be from around your armpit area to just past your foot (about 10 inches). The length of the other splint should be from around your groin area to about 10 inches past your foot.

Make sure that the two splints line up equally past the foot.

Make sure that you add padding to the splints or to the affected area. Use about 4 fasteners in order to do this.

Tie a smaller stick between the ankle end of the two sticks and wrap a small cloth around this stick and also around the ankle itself. The smaller stick should almost form like a crossbar between the two poles or sticks.

When the two legs are roughly the same in length, tie the ankle wrap in place.

Hand Fractures

Hand fractures usually aren’t seen as that serious, but they can become extremely painful if they are not attended to because

they often go unnoticed. If swelling sets in, the hand can become borderline impossible to splint. This is why at the first sign of discomfort, you need to address the hand problem. Additionally, hands are made up of many smaller bones and it can be difficult to tell which of them is being affected at any given moment.

When you splint the hand, make sure that it is in its normal and functional position. The hand should be slightly open, as if it were

going to grasp a soda can or a glass of water (approximately). Placing a roll of material or a sock in the person's hand will help to hold it in position.

Fractured hand symptoms.

You can tape fingers together for the purposes of support and rigidity. Make sure that you include material between the fingers to stop them chafing together and to stop them from getting sweaty.

Place a large, wide splint under the hand (palm side). Make sure that it extends past the wrist. Secure the splint in place using string or duct tape. Make sure that the entire hand is immobilized to prevent injuries from shifting and from getting worse.

Placing the arm of the affected hand in a sling will help to prevent swelling, if necessary. However, this is an optional step.

Ankle Splint

Broken ankles can occur all the time when out in the wilderness. It can be difficult to define what a broken ankle means, but basically, it is when one of the small bones that make up the ankle are fractured or broken. A broken ankle can also refer to a fracture in the joint that connects the bones of the leg to the foot itself. Because of the amount of walking that takes place when one is in a survival situation (or a wilderness expedition) ankles and feet are particularly at risk from injury.

One of the ways in which you can support a broken ankle is through a wire frame splint or a ladder splint. The other is through a stirrup-type arrangement. If you don't have any materials and you need to make a splint in a hurry, the latter is probably the best option for you. So, let's examine how to make a stirrup splint.

Construct a SAM splint out of a rigid but also pliable material such as tarp or any other kind of similar material. Bend the material into a "U" shape.

Place the foot inside the “U” shape as if the patient were stepping into a stirrup.

Secure the splint in place. Make sure that the ankle is thoroughly wrapped so that it does not move, and do not encourage the patient to put weight on the injured part. If possible, keep the foot and ankle up and off the ground as much as possible.

Hip Splint

Hip splints are extremely difficult to treat without proper medical care because there are certain things that the patient will not be able to do such as move the affected leg up, walk, or even sit up properly. These types of injuries require a little more care and

attention than the average break. Let's look at some ways we can begin to manage the extreme pain of a broken hip.

What the victim really needs is evacuation and to be airlifted to a hospital. But until these things arrive, you can make their lives more comfortable by constructing and applying a splint to the affected area.

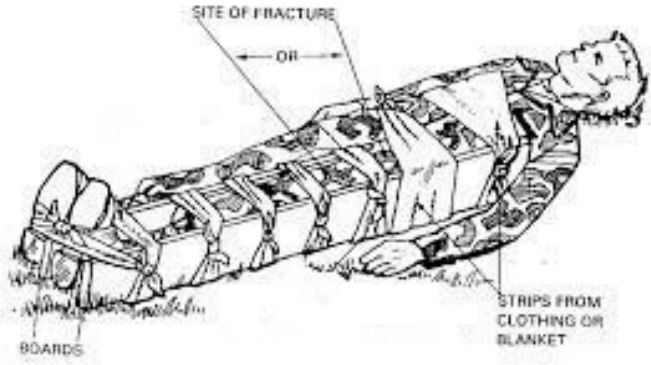
The first thing is to gather material for a splint. This needs to be a flat and wide material. It needs to be able to go around the entire hip area and cover it. A jacket, tarp, shirt, or any other kind of material will work for this.

Tie the patient's feet together using a soft material such as a sock or anything that can prevent them from moving. This is so that the hips are moved into a position where they are most natural and where they are under the least amount of pressure.

Pass the splint material behind the patient's legs, ensuring that they lift their legs as little as possible. Someone else can help you with

this if the patient is in a severe amount of discomfort.

Use the splint material to immobilize the hip area and stop them from shifting out of position. Ensure that there is still circulation in the affected area after you've finished applying the splint. Make sure that the splint material is tied in place.



When the patient is being lifted, make sure that their hips and legs remain aligned and that they are on a level surface such as a flat board.

As a final tip, before applying a splint, make sure that the hip is not dislocated. Oftentimes, the symptoms can appear the same as for a break. If a dislocation is present, do not attempt to align the legs or tie them up. Use bulky and fluffy materials to support the hip until help can be found.

MATERIALS FOR A SPLINT

If you're out and about, exploring, you're going to eventually need these materials, whether you decide to make a splint or not. This section helps you to identify which one of these materials are the most important for you and how they can help you in a variety of situations.

Puffy jackets make a ground base or padding for an improvised splint. Socks and similar items can be used to make improvised slings as well. But always be careful to keep yourself warm and don't sacrifice your clothing to make splints if you're going to risk catching hypothermia as a result.

Sticks or poles of various kinds can make great splints. Tree branches and other large sticks such as bamboo poles can make terrific splints as they are lightweight and durable. However, they can also have splinters, so be careful.

Camping mattresses and sleeping pads can make great padding for splints if they are slightly deflated and can be wrapped around an area. Make sure to keep any extremities warm by covering them with a glove, a hat or a scarf, if possible.

Tarp or ground cloth make great wrap-arounds or splint pads if they are rolled up into a small enough size.

Cords or ropes can be used to fasten splints together. Duct tape is another invaluable resource you are going to want to have in your itinerary. Make sure that your splint is fastened with a bow, not a knot. In this way, you'll be able to keep the splint secure, but you will also be able to adjust it if necessary. If you tie it using a knot, you might have to damage your rope in order to adjust the splint

and the whole arrangement could be ruined.

ACE wraps and bandages are great for compressing splints and for supporting a splint and the injured area.

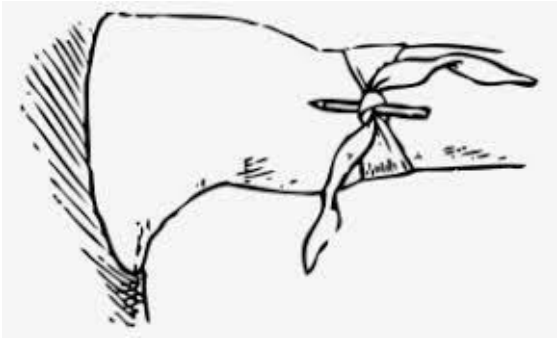
Snacks? You might wonder why this is important. However, it is imperative that you keep up the morale of the patient. If you can make them feel a little better by giving them something to eat, this might help the situation. Whatever situation you might find yourself in, remember that it is not about your comfort. It is about the comfort of the person who has been injured. Always remember to do whatever you can in order to make them feel warm and comfortable until proper medical attention can be found.

BLEEDING AND OPEN WOUNDS

So, moving away from the idea of broken bones for a moment, what do you do when you encounter a wound that seems to be bleeding profusely? The sight of blood can unnerve and upset many people. However, it

is of the utmost importance that you overcome your fear and reach out to help the other person.

DIY Tourniquet



One of the ways you can at least lessen the flow of bleeding is through the application of a tourniquet. It is a relatively simple thing to apply, however, there are certain considerations that you need to be aware of.

Firstly, we need to consider what a DIY tourniquet actually is. It is a strip of material used to close a wound and prevent the flow of blood to a particular area. It can be made of any kind of absorbent and flexible material.

The main function of a tourniquet is just to prevent blood from moving to a specific area or away from a specific area. This is particularly important in the context of bites or stings when you really want venom to not spread to the rest of the bloodstream.

The other important question is when it is necessary to use a tourniquet. Sometimes, it can be difficult to tell exactly when the need to restrict blood flow is most urgent. This guide gives some idea as to when the best circumstances to use a tourniquet are.

The most useful application for tourniquets is when a wound is bleeding and there is a need to stop it. Otherwise, if you've tried to apply pressure to the bleeding area, either by digital litigation or through some other process, and it hasn't worked, you need to apply a tourniquet to the area urgently in order to stop the flow of bleeding.

How to apply a tourniquet depends on what kind of material you are using to bind the injured part. If you're making use of a triangular bandage as a tourniquet, follow the

steps below that also show you where to apply the tourniquet.

- Begin by wrapping your bandage around the injured part, above it, around 2-3 inches from it. Tie a square knot to secure the bandage.
- Within this knot, you need to add a “windlass.” This is a short stick or other similar implement that is used to apply pressure to the affected area. Insert the stick vertically through the knot and tie it in place using another knot. Then begin to wind the stick by turning it vertically (think of the hands of a clock at this point). The more you turn the windlass to the side, the more pressure you’ll apply on the knot and in turn on the affected area.
- Every time you turn the windlass, make sure to check the pulse of the affected area. This can be achieved by placing your fingers below the affected area. If a pulse is not present, it means that blood flow to the area has been cut off.

- Once you've reached this point, secure the windlass in place so that it does not move anymore.

You can also use simple cords, ropes, handkerchiefs, or other similar items to create a tourniquet for a particular part of the body. But the nice thing about the windlass is that it allows you to control the strength of the pressure you're placing on the affected part. However, if you don't have a lot of time, you can consider just a simple cloth wrapped tightly around the affected area, for example.

DIY Bandage

DIY sock arm bandage.

Oftentimes, you'll find yourself in a wilderness situation and you've encountered a situation where there is a wound that is bleeding, but for some reason, you've run out of bandages. There might be many reasons for this. Maybe you had another emergency and all your bandages were used. Or you didn't pack enough or any and now you're in trouble. What does one do in a situation like this? Well, you have to improvise. One of the most commonly encountered materials you're going to find in the wilderness are the leaves of trees. You need to learn to make use of

them as they can be a real life-saver in situations where you need to stop the flow of blood quickly.

So how do leaves fulfil the role of bandages? Well, for the first part, some leaves have natural antiseptics within their leaves that help wounds to stay bacteria free. Some have natural properties that aid with coagulation or blood clotting.

One of the most effective leaves for binding wounds is known as the plantain leaf. It has both antibacterial and anti-inflammatory properties. What you need to do is to chew up a portion of the leaf and make a kind of poultice. Then you place it over the bleeding area (this works best for smaller cuts) and place another, unchewed, larger leaf over the top of the wound. Secure the leaf in place and allow the injured part to rest for a while. In this way, you can ensure that small wounds, bites, cuts, and stings don’t become infected (which can easily happen when you’re out on the trail).

Plantain plant.

If you don’t have access to leaves as a form of bandage, you can also make use of duct tape. Duct tape is quick and easy to use and it can be used as a short term measure in order to stop the flow of blood out of wounds. However, there are a few considerations to be aware of. Let’s look at how to use it in the process of closing a wound.

Duct tape works best for wounds that are simple and straight cuts (although this is not its only use). In order to use it, cut a strip that is slightly longer than the wound you’re wanting to close. Make two slits on each side of the tape at both ends. The best way to describe this is that you cut the tape into the

form of an “H.”

Next, you’re going to fold the middle of the tape to make a non-adhesive surface that will go over the top of the wound itself. When placing tape over the wound, ensure that you apply even and consistent pressure in order to close the wound properly. Make sure that the non-adhesive side of the tape is the part of the tape that goes over the wound in order to avoid having it sticking to the wound. This would be painful for the patient in this case.

Overall, you want to make use of tourniquets, bandages, and tape whenever you are unable to get hold of proper medical materials. Remember that these items are not intended to cure specific ailments. They are meant to maintain control of an injury until proper medical help can arrive.

Pain Relief and Natural Remedies for Bleeding

When encountering a wound that is bleeding in a survival situation, you can’t always count on having prepared medical supplies ready. It

is therefore important that you have the knowledge and skills to deal with such situations. There are different kinds of wounds and different kinds of bleeding that you might encounter. You need to make sure that you know how to use a variety of different materials to deal with such situations. Let's briefly look at the various types of bleeding that you can get. Some are more serious than others, as you will see.

Venous bleeding suggests bleeding from the arteries used to bring blood back to the heart. This blood is generally darker in color. The flow of a wound bleeding from this kind of artery is generally slower and more consistent in nature. Nonetheless, it still needs to be dealt with, with the utmost urgency.

The next kind of bleeding one can expect to encounter is arterial bleeding. This is the most serious and urgent kind of bleed that one will encounter. The color of blood from such a wound is usually lighter red in color, and it tends to come out in spurts. This means that blood is rushing away from the heart and

thus could severely impact organ function within a matter of minutes. It needs to be dealt with as quickly as possible.

Capillary bleeds occur when smaller blood vessels closer to the surface of the skin are affected. Blood flow is bright red and rapid but these are rarely serious. You do, however, want to address them as quickly as possible to avoid the problem of infection.

The great thing is that there are many different kinds of natural and organic ways to deal with both pain and bleeding. All you need is a little knowledge of the area and the environment around you and can you address

the majority of problems. But it does start with knowing where to look. Let's start by looking at the natural materials you can use.

Sphagnum Moss

Sphagnum moss is a type of organic plant form that grows typically in lower-quality drainage areas where the soil is typically moist. It typically grows on the surface of a swamp. It is also most common in wet climates. This should give you a great idea on where best to find this material. It is an absorbent material that can really stem the flow of blood in an effective manner. It is also known to have antibacterial properties.

Its usage is easy. All you do is grab a handful and squeeze so that the moisture is released. You can also air dry it which makes it even more absorbent and effective. The only other consideration is that you positively identify what sphagnum moss is. There are many that look similar, but are not quite the same thing. If you try to use them, you'll not have the same results. Let's look at how to correctly identify the right kind of mosses in a wilderness situation:

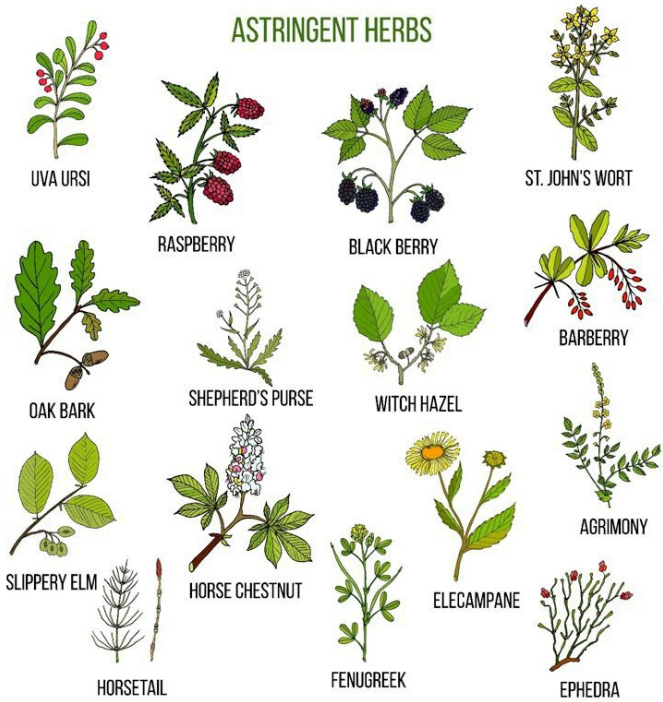
- The leaves of sphagnum moss are generally toothed and have tiny ridges on them.
- The moss generally grows in tufts, no more than about 4 inches in height and it is close to the stem.
- It is usually a bright and verdant green, but can often appear in other colors such as yellow, brown, and red.

The other important thing to remember, of course, is that sphagnum grows in marshy, wet, and boggy places. Therefore, you want

to avoid those mosses that appear in dryer areas as they won't give you the results you want.

Herbal Poultice

A herbal poultice is, as the name suggests, a mixture of herbs that is placed over a wound in order to prevent infection, inflammation, and bleeding. These herbal remedies work by releasing their curative properties into the wound and into the blood. There are many different kinds that you can find on your walks and hikes. It pays to have a knowledge of what some of these are.



Examples of these herbs include yarrow, witch hazel, and others. These herbs work by providing an astringent which narrows the blood vessels and capillaries and restricts blood flow. Other herbs are antibacterial in nature. Examples of these are garlic, wormwood, sage, and others. You can make a poultice of herbs by grinding them and

mixing them with water or you can make a tea from the herbs, steep a bandage or piece of material in the tea, and then apply it to the wound. In this way, you'll help to prevent swelling, inflammation, infection, and pain.

Honey

Honey is a surprisingly useful ingredient for both stopping bleeding, providing relief and for preventing infection. The reason honey works is because of its natural antibacterial properties. Manuka honey is considered to be one of the best kinds of honey for treating various kinds of wounds. But you can use other varieties as well. If you need to get hold of honey and you don't have some, you can

smoke out a beehive if you need to.

5

BITES, STINGS, AND PESKY INSECTS

This section of the guide is intended to provide advice about the nature of insect bites, stings, and injuries caused by animals and wildlife. We don't always consider how the environment around us might react to us when we venture out into the wilderness. It is therefore important to consider what might happen if we are attacked by a venomous creature. Some have the potential to trigger potentially fatal reactions in humans. Their bites and stings need to be taken into consideration when educating yourself about the potential

dangers you could face while in the wilderness. Even in everyday life, it is still useful to know about how to deal with annoying bug stings, bites, and scratches. Let's look at some real-world stories to get an idea of how these kinds of experiences can affect us.

We were camping one sunny June day and enjoying the sights and sounds of the mountains around us. My wife and I had decided to take a weekend off and we'd decided to bring the kids along with us to enjoy the same scenery. They were not doing anything but playing in the undergrowth next to a path, and all was quiet and serene. Suddenly, the silence was broken by a shrill cry. "Daddy, look!" my daughter cried. I called her over and examined the spot on her leg that she was pointing to. The familiar round body and short legs embedded in her skin told me exactly what I was dealing with. Unbeknownst to her, a common tick had attached itself to her clothing and it had made its way down her dress where it came into contact with her skin. I examined my son, and

I found out that he had two more ticks attached to him. Being used to such situations, I refused to panic and instead considered what I could do to remove them.

In the wilderness, you might be faced with a similar situation, requiring you to find innovative ways of dealing with insect bites and stings. Insects are one of the most common creatures you will meet, and thus must be prepared for accordingly. Such insects include biting flies, ticks, mosquitoes, ants, bees, wasps, and many, many others.

Many of these stings are little to no trouble and cause only minor discomfort. However, if the victim has an allergy, a seemingly minor bite can turn into something much worse. Or you could encounter a bug with a serious form of venom. Never take chances with bites and stings, and always prepare accordingly.

Symptoms of Bites and Stings

In this section, we take a look at the signs that someone has had a sting or a bite. Bear in mind that such injuries are not always easily

apparent because they are very small. Therefore, knowing the signs is key to dealing with and treating these ailments. So, what are these signs? Let's look at a few.

Insect Sting Allergy Symptoms

One of the first things you'll notice when someone has been stung is that they are in pain, either minor or otherwise. You might notice a swelling on a limb or body part. If you can see the affected part, you might notice that there is a stinger lodged in the skin. The area around the stinger might be itching or swollen. This is known as a local reaction because it is localized (this means that it is confined to a specific area of the body).

As far as if someone has an allergy to a sting, this should be immediately apparent from the time that they are stung as the venom of bees and wasps tends to act quickly on the body. Therefore, you also need to identify the signs quickly. There are other signs that are helpful to be aware of.

Firstly, be aware of the status of the victim's breathing. If you notice that their breathing is shallow or labored, or that they're struggling to breathe, it may be a sign that they are having an allergic reaction to the sting or bite. If you've already identified that they were bitten and then see them exhibiting signs of allergic reaction, move immediately to treatment depending on the severity of the symptoms.

Some insect bites and stings have very specific signs. Let's look at a few specific bites that you can identify by looking at the symptoms.

Fire ants are almost guaranteed to cause a reaction due to the severity of their venom. If you know someone doesn't have an allergy to bee or wasp stings and yet they are still showing the signs of allergic reaction, they might have been bitten by fire ants. These small red creatures are the bane of many family picnics.

The signs of fire ant stings or bites are hives within the affected area that disappear within

about an hour. Small blisters start to form within about 4 hours.

Within about a day, red pustules form and burst. These are not dangerous. Over the next few days, the sores should begin to heal although there may be pus, redness, and swelling at the site of the affected area. Consult a medical practitioner if the area becomes infected.

Consult your doctor immediately if the patient exhibits signs of the bites all over the body. This may be an indication that there has been an allergic reaction to the bite. On the whole though, fire ant bites are rarely dangerous and are more painful than anything.

These more serious symptoms include the following:

- Hives all over the body
- Difficulty breathing
- Fainting or feeling dizzy
- Racing heart or chest pains

- Diarrhea, vomiting, or nausea

Blood pressure may be low and the patient may be in shock. Seek medical help urgently. These symptoms are also common in allergic reactions to insect bites and stings in general.

If reactions are severe, there are a few things you can do to help the situation although self-treatment for allergic reaction is generally not recommended. Follow these steps if you encounter such a medical emergency:

- Tell the patient to remain calm and remain calm yourself
- Get out of the area where the insects are and reposition yourself in a safer and more protected location
- Take an antihistamine
- Use inhaled medications such as *albuterol*
- Lie down (or have the patient lie down) and raise the legs so that they are higher than the heart (or the limb that is affected)

- If the patient is unconscious, CPR needs to occur
- If seeking medical attention, tell the emergency services personnel exactly what medications the patient is allergic to and what kind of reactions they have been known to suffer in the past
- You can administer an epinephrine injection to yourself or the patient. This is a specific process which will be covered in a little more detail in the following sections. Basically, it is an injection you can use when you've suffered an allergic reaction that will help to lessen some of the symptoms and might save yours or the patient's life.

Using an Epipen

Before you head off on your travels, always make sure that you have an Epipen with you. This is a tool that you can use if you ever find yourself in a medical emergency where you're struggling to breathe, either due to allergy or due to some kind of medical condition. Having an Epipen might be the best decision you make, and it can be one of the most valuable tools in your inventory. If you know you have allergies, this becomes all the more important. But how does one go about using an Epipen or what is the most effective way to use it? You're about to find out.

- First, realize that adults and children are different and thus may respond to the ingredients in Epipens differently. Always be sure you know how to apply the Epipen to both children and adults.
- Be aware of how Epipens work. Their primary purpose is to reverse the harmful effects of anaphylaxis by introducing a shot of adrenaline to the body. Adrenaline assists the body's natural response to the onset of anaphylactic shock, and it helps the body to maintain its normal rhythms through this time.
- Be aware of a few things before using the Epipen on yourself: Make sure that the blue safety release is not raised and that it is not difficult to remove from the plastic case. Ensure that the device is functioning as normal before you inject yourself. If you spot any of the two above issues, return the device to the manufacturer immediately.
- Carefully remove the injection from its carrier.
- Grasp the end of the injector in your

dominant hand and make sure that the orange end is pointing downwards.
- Inject the orange part of the injector into your upper thigh and push it so that it clicks. Hold it in this position for at least 3 seconds and then remove it.
- Gently massage the area for about 10 seconds.

If you have to administer an Epipen to a child, note the following considerations:

Follow the pre-injection procedures as above. In addition to the above steps for the injection procedure, make sure that the child is positioned securely. They can either be lying or sitting on your lap as you administer the injection. Smaller children may need to be held as they receive the injection.

Treating Specific Bites and Stings

The following is a guide to dealing with different kinds of bites and stings by specific insects. This section offers a brief look at how to address the emergencies presented by these stings.

Bees and wasps have stings which lodge in the skin and must be removed. Be careful with wasps as they can sting more than once, and when stinging, they release pheromones which call other wasps to the site. If you find yourself being stung by a wasp, relocate to another area in order to avoid this.

Bee.

In order to remove the stinger, you need to know how. Don’t attempt to grab it out with your fingers, particularly in the case of bees. The venom sac is at the end of the stinger. Grabbing it or squeezing it with your fingers causes the venom to be ejected further into

the skin which is something you want to avoid. The correct way to remove a stinger is by removing it from the side. The way you do this is through using a flat and straight edge such as a butter knife, a thin piece of card, or anything similar. Once you've removed the stinger, discard it and treat the sting using a herbal remedy such as crushed garlic, onion, dandelion sap, or similar substances. There are many organic materials that can be used to treat the pain and itchiness caused by the sting if you don't have access to your usual medical supplies. Placing a cold compress over the wound can help to reduce swelling and inflammation.

Spider bites can sometimes be dangerous, depending on what the spider is. Some of them can even be fatal. They must be treated with the utmost seriousness. There are a couple of spiders you need to be particularly aware of. These are known as the black widow and the brown recluse spider. Both of these creatures are extremely deadly and any contact with their venom must be dealt with as soon as possible to avoid permanent damage and even death. You can identify both spiders by looking at the following markings:

- Black widows typically have a red hourglass shape on them
- Their bodies are typically shiny
- Their size ranges from about 3 mm to 10 mm (a little over ⅜ of an inch)
- They are common the world over

Black widow spider.

Also be on the lookout for the equally venomous brown widow which is similar but lighter in color, hence its name. Now, let's turn our attention to the brown recluse. Where does it live and how does one recognize one?

Brown recluse spider.

- It has a violin-shaped body with two

distinctive stripes down the back. The creature itself is dark brownish to orange.

- It has eight longish legs and a set of eyes on the top of its body, near the front.
- Brown recluse spiders are found in abundance all over the US.

In general, if you get bitten by a mildly venomous spider, you might be slightly sick for a while. In the large majority of cases, all you would have to deal with is the bite itself. You need to prevent it from becoming infected. There are a few things you should know about treating a spider bite.

First, wash the area with soap and water to prevent infection from setting in. Then, apply a cold compress to reduce swelling and to slow the spread of poison from the area. Elevate the affected limb above the heart. Take an antihistamine to prevent an anaphylactic reaction. If the bite is from one of the spiders mentioned above or the patient starts to show signs of allergic reaction, seek

medical attention immediately depending on the severity of the symptoms. Use your first aid training to keep the patient under control and calm until help can arrive. In the meantime, manage the affected part the best way you can.

Ticks are another creature that presents a serious menace when you're out in the wilderness. Once they attach themselves to you (or your animal companions), they don't tend to let go easily. However, there are ways to get them to relinquish their hold on you. And that is by making them as uncomfortable as possible.

Ticks.

One way to get rid of ticks is by using tweezers or a sharp implement (this is assuming they are buried deep within the skin). Do not pull at the tick by the body. This will risk tearing the tick apart and leaving the head still stuck in the wound which will then become infected. Pull upwards on the tick near the mouthparts with a steady, upward motion. If the mouthparts are left behind in the skin, you can still try to remove them using the tweezers.

If all else fails, you can try to burn the ticks off using a lighter. They will respond negatively to the encroaching heat and may back out. Whatever you do, don't pull the tick out by hand as this will risk making the situation worse.

Mosquito bites are another annoying issue you'll have to face if you are going to spend any amount of time in the wilderness, particularly in low-lying areas. There are two kinds of mosquitoes, those who carry malaria and those which do not. Do your research before visiting an area to make sure that there

is no malaria risk there. If there is, consider relocating to an area where you will not encounter this threat or go to your doctor and receive a vaccine or medication which will render you immune to the threat of malaria. However, you'll still have to deal with the bites from these creatures. So how does one deal with the bites from mosquitoes? Fortunately, it is a relatively simple process. There are two things we need to be aware of: how to prevent mosquito bites and if we are bitten, how to treat these bites. So, let's dive into it.

To prevent mosquito bites, consider investing in a mosquito net. This is a net made of a very finely-meshed material which prevents mosquitoes from getting to you as you sleep. It is draped or placed over the person's sleeping place as they are resting. It is extremely valuable at night.

Mosquito bite.

But if you do get bitten, consider the following options to deal with a bite:

- Wash the area with soap and water
- Apply an ice pack or a compress to reduce the amount of swelling
- Make a paste of baking soda and water (if you have access to these) and apply it to the area. It will help you to reduce swelling and itching.
- Use an antihistamine or over the counter medication to reduce the discomfort

Puncture wounds from animals are wounds where the animal has used its teeth or claws (usually a mammal or maybe sometimes a bird) to scratch and break your skin. If an animal uses its teeth on you, there may be a deep wound or gash. This is at serious risk of infection and must be dealt with urgently.

Animal bite on leg. Note the depth of the wounds.

- Wash the wound thoroughly with antiseptic and water.
- Try to stem the flow of blood, and

assess the severity of the injury.

- In many instances, the wounds from mammals in particular will be made by teeth. These wounds will therefore be puncture wounds. Ensure that you assess the extent of the damage based on this fact.
- Cover the area with a sterile bandage and some gauze.
- If there is pain and inflammation, apply a cold compress and administer painkillers if you happen to have them on hand.

Dealing With Snakebites

Sooner or later, you're going to run into snakes while you're in the wilderness. They may be secretive creatures, but they live all over the world on most continents (barring some countries in the Australasian region). And if you encounter them, unknowingly or otherwise, there is always the risk that these confrontations could lead to a nasty bite. So, what does one do if you find yourself in the situation where you've been bitten?

First, realize that there are many different kinds of snakes. Not all of them behave in the same way and they all look different. Some are deadly poisonous and some are completely harmless. Some will not bite you at all because that is not their preferred method of killing their prey. The general rule of thought when you encounter a snake is to leave it alone and don't interfere with it. But if you find yourself in a situation where you've been envenomated (that is, bitten by a venomous snake), you need to act quickly.

Firstly, assess exactly what you have been bitten by. If you recognize the snake as being

typically harmless, then you simply treat the wound as you would a normal bite or skin laceration.

If you suspect that the snake is venomous, you need to do the following, and with the utmost urgency:

- Move the patient or yourself away from the snake and the danger area as far as possible.
- Keep the victim as calm as possible and get them to lie down. Get them to remain as still as possible because moving around may cause the venom to spread to other parts of the body faster.
- Remove any tight jewelry or clothing from the victim.
- Do not attempt “venom sucking” or tourniquet techniques. These have long been studied and have been found to be largely ineffective.
- Take a picture of the snake if you’re intending on seeking medical attention. Medical practitioners will know what

antivenom to administer if they know what the snake is.

- If you're not close to any medical facilities and you're out in the wild, there may be only one alternative: shock treatment. What does shock treatment entail? Well, it is meant as a last resort when all other alternative methods have failed. Many would doubt whether giving a victim an electric shock in these circumstances would work, and yet it has been shown to be effective. So how does it work?

It works through a process of transferring electricity to the victim's body, thus somehow disrupting the way in which the venom works in the bloodstream. First, a spark plug is taken from an electric mower, for example. Next, it is applied to the victim's skin. Finally, the starter lead is then pulled. Typically, what happens is that electrical impulses are pumped into the area surrounding the bite. This is done several times over intervals of a few seconds. This

process is not without its risks and needs to be administered extremely carefully and by someone with experience in these matters. It is a last resort, life & death play, otherwise, just follow standard protocol above.

Natural Remedies for Allergic Reactions

Having looked at some of the insect bites and stings that can occur, it is important for us to know what kinds of natural and organic remedies are available for these issues. We

aren’t always going to be able to rely on medications and other first aid items, so what do we use when we have nothing? We use the environment around us.

When faced with a severe allergic reaction, there may be a need for CPR. There are also other symptoms that occur that need to be treated. Natural remedies can assist with this. So, let’s look at some of these natural remedies. Below are seven natural remedies that can be applied topically in any given situation.

The first of these remedies is ice. Ice can be used to reduce swelling and inflammation and it can be used to reduce the size of blood vessels, which in turn stops the spread of histamine through the bloodstream, thus halting the allergic reaction.

Vinegar is another great substance for halting allergic reactions because it neutralizes the venom from bees and wasps. Soak a ball of cotton or a piece of material in vinegar and apply it to the affected area. Leave it to rest for a few moments.

Milk is a great substance for neutralizing venom because it contains proteins which calm inflammation. Place a cotton ball dipped in milk over the site of the bite or sting and hold it there for a few moments. Hopefully, it should reduce some of the swelling and inflammation.

Tea tree oils reduce swelling and they also act as a natural mosquito repellent.

Lavender oil has antiseptic and anti-inflammatory values. Dilute it with a bit of olive or coconut oil before applying it to the affected area.

Basil leaves crushed make a great dressing for a sting or a bite. Grind up some of the leaves and make a paste. Apply it to the wound and secure it in place.

Use lemon balm in the same way you would basil. It has antihistamine and other healing properties.

Prevention Techniques and Pain Relief

Prevention is better than cure, an old saying

goes. And this is true. You would rather be proactive in dealing with issues than reactive. But what does one do to prepare for situations before they happen?

Wilderness repellents are one way that you can prevent yourself from being stung or bitten. By avoiding being stung, you're avoiding all the problems that come with it. So. what are some of these repellents and how do they work?

Cover yourself in thick mud from head to toe. If you're wearing clothes, you don't need to cover yourself under them. Make sure that the exposed parts of yourself are encrusted in mud and bugs and other insects won't be able to access your exposed skin.

Light a smudge fire. Make a fire with strong smelling wood such as beech or oak and sit near it. The scent of this fire should cling to your skin and repel insects from landing on your skin.

Smudge fire for insect repelling.

Natural repellents are those which you find in the wild such as yarrow and wormwood. You can crush the leaves and rub them on your skin. But be mindful that the effects of these plants only last for a few hours before you need to apply them again.

Yarrow & Wormwood

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HEAT EXHAUSTION, BURNS, AND HYPOTHERMIA

Burns are a common injury when you're on wilderness expeditions. The need for fire and heat means you're always going to be relying on this most vital of tools. But while fire and heat can be a lifesaver, it can also be a danger. So, what do you do when you find yourself on the wrong end of fire's fierce power? In addition, we often disregard the impact of weather on our lives when we're in the wilderness. In this section, we'll examine how to deal with some of the conditions that the weather throws at us and how these affect us. One can never be too prepared.

DEALING WITH UNEXPECTED BURNS

One chilly September evening, the family and I were sitting around a campfire singing quiet songs and just generally enjoying the stillness of the evening. The sound of crickets and nightjars filled the night and there was the scent of pine in the air. We were quite far from home, having decided to stay at an off-grid cabin in the woods that belonged to friends of ours. It was quiet and peaceful there, and we could rest without being disturbed. As I stood up to shake the dust out

of my clothes, my sleeve accidentally brushed the flames of the fire. As it caught, I did not immediately notice it. My 5-year-old son cried out as the flame caught my hand. I heard his cry and turned around to see that my sleeve and hand were on fire! Immediately rubbing my hand into the soft dirt and starving the flame of oxygen, I was able to eventually extinguish it. But I was in some serious pain afterward. What was I to do with the red, angry burn on my hand?

ASSESSING BURNS

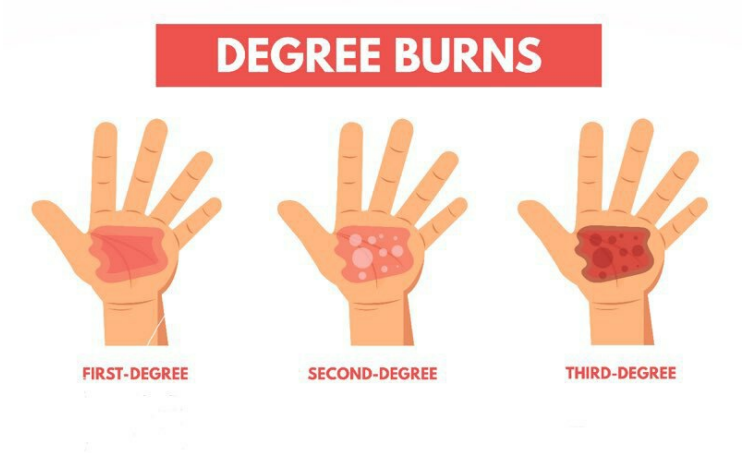
When assessing a burn, there are several things you're going to need to be aware of:

- determining what degree of burn you are dealing with
- the size of the burn
- the cause of the burn
- the part of the body that was burned
- the age and health of the victim

The reason this is important is because different severities of burns require different kinds of treatment. If the treatment is inadequate, long-term scarring could occur. Proper treatment is vital.

The location of a burn is important because if the burn is on the face, for example, it could affect the breathing and airway. Burns to the feet could result in a lack of mobility or function. Finally, burns to the extremities could impair circulation in these areas.

Types of Burns



Let’s take a brief look at different degrees of burn and how they can be identified. Firstly, we have the first degree burn in which only the top layer of skin is affected. There may be redness and swelling, but no blistering will be present. In the case of second degree burns, there will be redness, swelling, and blistering. The area will be extremely painful to the touch. In the case of third degree burns, serious damage to the deeper layers of tissue will be observed. Skin will be dry and leathery to the touch. There will be zero sensation in the area due to the nerve endings of the area being destroyed.

Sources of Burns

It is important to realize that heat is not the only source of burns. There are many other sources, even in the wild, that can impact you in this way. It may sound strange, but there are some varieties of plants that can cause painful burns. It’s time we examined how poisonous plants can cause severe burns and how these burns can be treated. First, we'll see what some of these plants are. Some may

grow in your area. The best way to learn about them and where they grow is to study them and the areas that they are most common in.

Poison ivy is a toxic plant that grows on vines. Its leaves can be identified by their distinctive three-cornered, bright-green or dark green appearance.

Poison oak can be identified in much the same way as poison ivy by its three-cornered leaves.

Poison sumac has around 7 to 13 leaves that grow in clusters around the stem.

The most certain way to identify which plants are poisonous and which aren't are by looking at the following signs. Examine the leaf of the supposed poison ivy plant. Do you see three leaves on each individual stem? Look at whether these leaves are individual (on their own off the larger stem or if they are joined together). If they are individual and on stems, it probably means that the plant is poisonous and should be avoided at all costs.

If you came into contact with a poisonous plant and are worried that you might have been affected, follow the following steps:

- Try to determine what plant you have been around or brushed past.
- Rinse the location with water.
- If you find that you are experiencing problems breathing, proceed as you would for anaphylactic situations.

TREATING BURNS

This guide includes treatment for all kinds of

burns, ranging from mild to more severe. The key to effectively treating burns is to address them as soon as possible.

For first degree burns or less severe burns, you need to only treat the outermost layer of skin and thus you should attempt to cool it down as quickly as possible as this will avoid blistering and scarring. Contrary to popular belief, you don't want to be using ice cold water to cool a burn as this can damage the sensitive layers of the skin. Instead, consider cooling the surface of the skin using lukewarm water. For very large burns, don't attempt to use ice water or cool water to lower the temperature. You might cause the victim to experience hypothermia or a sudden temperature drop.

If there is no blistering, you can cover the skin with a light dressing. If there is an open wound, you might want to consider not putting any kind of dressing on it yet. If the skin is tender and painful, but not open, you can consider putting a dressing on it.

If the burn is major, immediately move the

victim away from the source of the burn. Ensure that they are breathing. If not, initiate CPR and check their vital signs repeatedly. If they are breathing, turn your attention to the burn. Remove any clothing that might be on the victim and treat them for shock, if needed. If the victim is actually on fire, get them to initiate the “stop, drop, and roll” procedure. Next, cover the wound with a cool and sterile piece of material. Finally, protect the victim from further shock by covering them with a blanket and elevating the affected area. Before moving the victim, ensure that they are not suffering with any other injuries before doing so.

Natural Remedies

For natural remedies for burns, there are many plants and herbs which can make a difference. Some of these are found in your very own home or garden.

Banana leaf dressing for a burn.

One specific remedy that is often overlooked is called the banana leaf remedy. The way you apply it is simple.

Simply place the leaf over the wound and secure it in place. Make sure that the leaf itself does not have anything on it which could infect the wound. You can give it a quick wipe with some antiseptic before applying it. But otherwise, the only thing you would need to make sure of is that it fits the burned area.

Remedies to Avoid

Some remedies you definitely don't want to be using on burns include the following: ice, butter, or fat or any kind. Also, don't break any blisters that are on the skin. Doing so might cause the burn to become infected.

HEAT ILLNESSES

Finally, we will examine two common types of conditions related to changes in climate, both hot and cold. These are heat exhaustion and hypothermia. It's important to realize that burns are not the only source of danger that comes from heat. Heat exhaustion and its associated illnesses can also be an issue.

Firstly, what is heat illness or more commonly, what is heat exhaustion? It is a condition that occurs when the temperature inside the body is too high due to external factors. A person may be unable to bring their temperature down without help. Organ function is affected. The signs and symptoms of heat illness are as follows:

- Fainting
- Painful muscle cramps
- Dizziness, nausea, sweating, headaches, blurred vision, and other similar symptoms

How does one treat heat exhaustion?

- Have the patient lie back on a comfortable surface
- Elevate the patient's legs
- Keep the patient hydrated and be sure that their electrolytes are balanced by giving them salt water

You can also prevent heatstroke by staying hydrated at all times, walking in shaded areas if possible, and by wearing loose-fitting and light-colored clothing. If you're in a hot environment and struggling to find water, here are ten easy ways to do so:

- The most obvious way is through lakes, rivers, and streams which you will find

in any given environment.

- Puddles are always a good option.
- Look for the signs of bees as they are usually attracted to water. Likewise, the same is true with birds.
- Rainwater is a godsend and it can really help you out in a tight situation. Look for it in rocks and holes after it rains.
- Sometimes, you'll find water if you dig a deep hole. Wait for it to fill up before siphoning off the top.
- Morning dew is another valuable water source.
- Distill your own water.
- Plants are another great source of water.
- Seawater is a form of water which can be ingested, but only after being treated.
- Snow can be used, but it must be prepared first.

Whatever form of water you use, always do your research first.

Hypothermia and How to Treat It

Hypothermia is the opposite kind of condition where the person's internal body temperature is too low and they are unable to raise it. The symptoms of profound hypothermia are as follows:

- Intense shivering
- Pallid color on the skin and face
- Weakness and lethargy
- If the temperature drops low enough (88 degrees), the person will stop shivering altogether
- Lack of coordination
- Irregular pulse and breathing

In order to treat profound hypothermia:

- Keep the person warm by piling as many soft blankets on them as you can given the circumstances
- Do not give them anything to eat or

drink if they cannot handle it
- Handle the person gently
- If the patient shows no sign of breathing, initiate CPR

What Not to Do When Treating Hypothermia

- Do not feed the victim if they are struggling to breathe. They are liable to choke. If they are experiencing mild hypothermia, do feed them.
- Telling someone to walk it off.
- Feeding the victim alcohol.

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NATURAL REMEDIES

We hear so much about natural remedies. But what do they mean and where can they be applied? These remedies are used as a last resort, when you don't have access to your usual supplies. What we are going to examine are the ways in which natural materials can assist us in wilderness situations where we don't have access to anything else. The best form of being prepared is through educating yourself about what you might face in the future.

Nature's Plasters

The following items can be used as small dressings or plasters for wounds:

Seaweed has antibacterial and anti-inflammatory properties. It also contains iodine which assists with wound healing. As it dries, it shrinks and fits over a wound nicely. You just need to find the right size and shape to fit the injury that you're dealing with. It works best for smallish wounds such as finger, leg and hand injuries.

Seaweed for plasters.

There are different kinds of fungi that also make great dressing for wounds. It may sound strange at first, but in reality, fungi are found very close to many homes and neighborhoods. Look on trees, specifically, as these contain different kinds of fungi that you can use. If you're far from home, this becomes even more important. Look out for the birch tree specifically. This variety of tree contains the type of fungus that has antibacterial and curative properties. Using a sharp knife, cut the polyphore into a plaster-like shape and apply it to the affected area.

Fungus plaster.

Natural Flu Medicine

Wild Elderberries.

Flu is a common ailment when you're out on the trail. One of the most effective remedies against it is a fruit and bush by the name of elderberry. All you need to do is to gather its fruits, stems, leaves, and roots and boil them in water for a while. Drink the liquid that is left behind after straining the plant. It tastes wonderful and is even better for you.

Twelve Plants for Your First Aid Kit

Having mentioned a few of the plants that have curative properties, it is time to delve into some more that can be useful for you. This list contains a number of plants and their beneficial properties. These plants wouldn't look out of place in your first aid kit, and they don't cost anything. Knowing what these are might save your life.

Rosemary is a rich source of antioxidants and anti-inflammatory compounds, which are thought to help boost the immune system and improve blood circulation.

Rosemary.

Lavender is believed to have antiseptic and anti-inflammatory properties, which can help to heal minor burns and bug bites.

Lavender.

Garlic has antiviral properties, and could help combat sickness – including the common cold.

Garlic.

Sage is used for digestive problems, including loss of appetite, gas, stomach pain, diarrhea, bloating, and heartburn.

Sage.

Oregano contains chemicals that may help to reduce a cough. It is also thought to help with digestion and with keeping bacteria and viruses at bay.

Oregano.

Ginger reduces pain and inflammation.

Ginger root.

Echinacea has been shown to improve immunity, blood sugar, anxiety, inflammation and skin health.

Echinacea.

The health benefits associated with elderberry are its ability to help boost immunity and assist with seasonal wellbeing such as a winter cold.

Elderberries.

Thyme is taken by mouth for bronchitis, whooping cough, sore throat, colic, arthritis, upset stomach, stomach pain & diarrhea.

Thyme.

Raspberries.

Raspberries are rich in many essential nutrients your body needs including fiber, vitamin C, vitamin E, manganese, and vitamin K.

Lemon.

Lemons contain a high amount of vitamin C, soluble fiber, and plant compounds that give them a number of health benefits.

Calendula.

Calendula has been used to treat a variety of ailments affecting the skin as well as infections and fungus.

Dandelion.

Dandelion is a bitter little herb that is packed with nutrients and vitamins. It is a diuretic and can be applied to skin (in a paste form) in order to treat various mild skin ailments.

Burdock.

Burdock is a plant that can be crushed and used to treat bumps, scrapes, and bruises. It has anti-inflammatory properties and can also be used for treating burns. Crush the leaves and apply them to the burned area.

Selfheal is a plant which, as the name suggests, has great curative properties. One its primary uses is for fighting viral infections, colds, flu, and many other similar ailments. It can be thrown in hot water, brewed, and drunk as tea.

Selfheal.

Plantain is a kind of plant which, when dried, can be used for placing on bites and stings.

Plantain.

Chamomile is a plant which is most well-known for its distinctive scent and use in teas around the world. It is a soothing and refreshing herb and one which can be made into a poultice. It helps with the process of sleep and it can be used as a relaxant.

Chamomile.

Identifying Plants

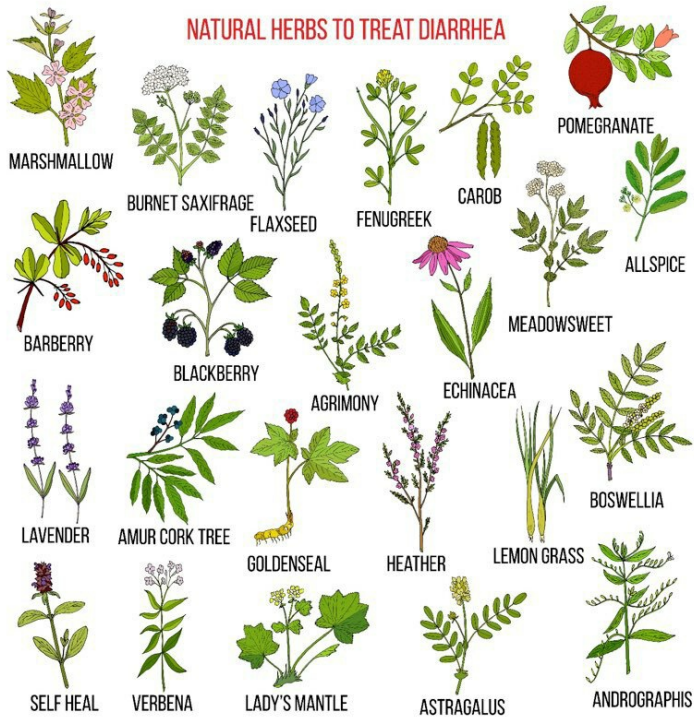
So how do we know that we've got the right plant? There are so many. Which are healthy for us and which are poisonous? This information is of vital importance to the survivalist or anyone who has been lost in the

wilderness at any time. Below are a few defining features of popular plants.

Plantain are large, green clusters of leaves that have a central stalk which is around 7 inches high. It has a central stem and the leaves are arranged around it at ground level in a star shape.

Lichen (which can be used to stem the flow of blood in wounds) can be easily identified as it hangs down from trees. Be sure to dry it before you apply it if possible.

Yarrow is often identified by its fern-like leaves that are common at the sides of paths.



Look these up to see what else they are good for.

Basically, these are a few plants that are really useful that you can easily identify. The point is that you need to educate yourself on what different and useful plants look like so that you can use them when you encounter them. I have set you some homework to further your learning. Following are more

edible & medicinal plants that can be utilized in a survival situation. It's your opportunity to carry on this journey, by, finding out their uses & how to use them.

Again, look these up & find out what they are good for & how to use them.

Purifying Water

The following is a guide to purifying water without boiling it, boiling might not always be possible if you don't have access to fire. However, you will boil your water whenever

possible, as this is guaranteeing yourself clean water.

Water purifying tablets are the next best option. Tiny amounts of bleach can work, or you can make use of more natural ingredients such as iodine tablets. These are more convenient to carry around, but they do leave a bitter taste in the water. However, the water you use will be pure.

Water purifying tablets.

Another way you can purify water is through sunshine. Place the water inside a plastic bottle and lay the bottle on its side. Lay the bottle in the sun and leave it for about 6 hours in direct sunlight. After this, it should be purified. It works best if you can lay the bottle on any reflective surface, as in the example image, aluminium is used to lay the bottles on.

Water purification using the sun.

Lifestraw portable water filter.

Finally, consider investing in a lifestraw which you can carry around if you head out on your travels. These devices are actually portable water filters through which you can suck water. Inside the straw is a filter which purifies the water as it is drawn up through the straw.

CONCLUSION

So, overall, what have we gained by looking at this brief guide to first aid in a survival situation? We learned that it is important to be mentally prepared, educated, and in the right mindset to face any problem when you find yourself in a survival situation and faced with a medical emergency.

In chapter one we learned to expect the unexpected & to be ready for it. We covered what first aid is, it's principles & core concepts & we looked at the difference between survival first aid & conventional first aid as well as some first aid practices. We

also covered first aid kits & medications to have.

In chapter two we looked at, initial assessments via our reader quiz, being our own doctor. We looked at treatment plan assessment & preparation. We also covered checking vital signs & looked at the 5 essentials of first aid outdoors.

In chapter three we covered strains sprains & DIY slings. We covered soft tissue injuries, what they are & how they can happen. We looked at soft tissue injury symptoms & the three stages of treatment & we noted the difference between strains & sprains.

In chapter four, we covered a lot. We looked at bleeding, fractures, both open & closed & making DIY splints. We covered how to splint most parts of the body. We looked at materials suitable to be used as splints & we touched on DIY tourniquets & bandages. We then finished off chapter four by looking at natural remedies & pain relief for bleeding.

In chapter five we covered bites, stings &

pesky insects. We learned bite & sting symptoms, how to care for someone suffering from sting allergic reaction. We covered using an Epipen, treating specific bites & stings & snakebites. We finished off looking at some natural remedies for allergic reactions & finally, we covered prevention techniques & pain relief.

In chapter six we covered heatstroke, burns & hypothermia. We covered, types of burns(1^{st}, 2^{nd} & 3^{rd} degree) & how to assess & treat them with conventional & natural remedies. We covered dealing with patients suffering from either heatstroke or the opposite, hypothermia.

In chapter seven we covered natural remedies from natural plasters to natural flu remedies. We looked at twelve & more plants that would not be out of place in your first aid kit. We also started on our journey to being able to identify plants & know their uses & finally, we looked at how to purify water.

I hope in some way this book may help you

down the path to being ready & prepared for any medical emergency at home & or, more importantly, should you ever find yourself in a real survival situation with casualties.

Your own mind is your most valuable tool. This is what this book aims to provide. It gives you the tools to exercise your mental creativity. First aid training is the next key to your success.

You don’t have to freeze when faced with difficult situations anymore. You can face any situation with confidence. Think about what materials you already have. What do you need to invest in? Preparation is everything.

If you have found this book helpful, please leave us a review!

Practical Survival Skills Shows You How To Make Fire Without Matches

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