

# CHAPTER 7 – HOUSEHOLD MILITARY MEDIC



THE COMPLETE STEP-BY-STEP SYSTEM TO GUARANTEE YOUR SURVIVAL

## **Chapter 7 - Household Military Medic**

In a crisis situation, medical services tend to become overloaded. The disaster itself causes many people to be hurt and then many more are hurt as they deal with surviving the aftermath and putting their lives back together. On top of this, there is the usual workload of babies being born and people with chronic illnesses that the medical community has to deal with.

With all that, it can be hard to get to see a doctor, except for the most serious of circumstances. Then there's the problem of getting to a doctor. Roads may be blocked by fallen trees, gasoline pumps may not be working and roads may even be damaged.

That's why it's a good idea to have a good first-aid kit on hand, as well as learning some basic first aid skills to use in taking care of your family's injuries and minor illnesses. With the right medical supplies on hand, most of which can be purchased over the counter, you can take care of a lot of things yourself, leaving the doctors to take care of the more serious illnesses and injuries.

## **Building a Survival First-Aid Kit**

With medical services potentially overloaded, you need to be ready to take care of things yourself, especially wounds. I'm not talking about a little paper cut here, but major wounds, like gunshot wounds or someone hitting themselves in the leg with an axe. Those need quick treatment to stop the bleeding and prevent infection.

The type of first aid kit you can buy at your corner pharmacy isn't going to do a thing for these larger wounds. You can buy larger kits, known as "trauma kits," but I prefer to make my own. That makes it more complete and ensures that I know what to do with everything in the kit.

To start with, you'll need a good case for it, something to keep everything together, organized and protected. Most commercial trauma kits come in soft cases, but I like using a large fishing tackle box. That provides a lot of room and some pretty good organization. To make larger areas for supplies, I cut out some of the dividers between compartments in the trays.



I recommend buying high quality first aid supplies and equipment. This isn't a good place to cut corners. High quality supplies will hold up better, do a better job of taking care of your patients and ultimately cost less, because they will work correctly.

So, what do you need to put in this kit?

#### **Personal Protection**

- Medical grade gloves You always want to wear gloves when treating anyone. Many
  infections can be transmitted by the blood. By wearing gloves, you can help ensure that the
  patient doesn't infect you and that you don't infect the patient.
- Anti-bacterial hand cleaner Always clean your hands, up to the elbows, before treating a
  wound. Your skin has a lot of bacteria on it and you don't want that to get into the patient's
  wound.
- Medical mask For keeping you from breathing directly on the patient's open wound. It also
  protects your nose and mouth, should they cough or sneeze.
- CPR mask Used when doing CPR to keep saliva from passing from one person to the other. Viruses and bacteria can pass with bodily fluids.

#### **Medical Equipment**

- Blood pressure cuff For diagnosis. Helps you determine if the person has bled too much or
  if there is internal bleeding. High blood pressure is also dangerous in and of itself, triggering
  strokes and heart attacks. If you have anyone in your family who is susceptible to these, you
  should monitor them regularly.
- Blood sugar kit Also for diagnosis. Low blood sugar is a prime cause of people fainting or passing out. If they feel dizzy, weak or are shaking, check their blood sugar.

- Medical scissors For cutting away clothing and removing old bandages. Don't cut corners
  here, as good ones should be able to cut through blue jeans, including the seams.
- Fine-pointed tweezers For removing splinters and other foreign objects.
- Eye loupe For use with the tweezers
- Eye cup For rinsing the eye out when it has foreign objects in it. It is used with a sterile saltwater solution.
- Hemostats For closing off exposed blood vessels that are bleeding profusely. This is risky, as you will be cutting off blood blow to parts of the body, so only do it when absolutely necessary to prevent the patient from bleeding to death.
- Tourniquet (the kind that can be used one handed) Used when there is a severed limb or
  when there is excessive bleeding. Like the hemostats, you need to be careful, as you are
  cutting off blood flow to that limb. Only use when absolutely necessary and even then,
  release pressure every ten minutes to see if the wound has clotted. A tourniquet can also be
  used as a pressure bandage, if you are careful with it.
- Snake bite kit Conventional wisdom has moved away from the old snake bite kit where you
  cut an X and sucked out the blood. The only snake (and insect) bite kit on the market today
  which works is made by Sawyer. It works by suction, drawing the poison out through the
  holes it was injected in.

#### **Medical Supplies**

- Blood clotting agent A powder which absorbs blood and helps promote clotting. This is
  available either as a powder alone or impregnated into a bandage. Very effective for wounds
  where there is a lot of bleeding, reducing overall blood loss.
- Fabric adhesive bandages (assorted sizes) The fabric bandages work much better than plastic ones, as they are flexible and conform to the movement of the body. They can be put over joints, without coming loose. There are special bandages for knuckles and fingertips, both of which I recommend highly.
- Larger bandages Larger bandages don't usually have adhesive strips on them, being held in place by medical tape. Stock an assortment of sizes, ranging from 2"x 3" up to 5"x 7".
- Sanitary napkins These are great for bandages on large wounds. They are sterile and designed for absorbing a large amount of blood. They are also considerably cheaper than normal bandages.
- Butterfly closures Used in place of suturing, for those that don't know how to suture. They look like an adhesive bandage strip, without the middle pad. The center area, where the pad would normally be, is just a thin strip, to hold the two adhesive parts together. They are placed over open wounds, pulling the skin together so that it can heal.
- Medical tape For holding all types of bandages in place. While more expensive, the new
  cohesive tape they have come out with is much better. This tape is like a thin, stretchy
  rubber band. Instead of sticking to the skin (and hair) it sticks to itself, holding the bandage
  in place.
- Antiseptic ointment For putting on wounds to keep them from becoming infected.
- Irrigating syringe A large syringe used for flushing out a wound and floating out foreign objects. The syringe can be used with any water that is purified enough to drink with. It comes with a plastic "needle" for getting inside the wound.

- Alcohol towelettes For cleaning and disinfecting wounds.
- Elastic bandages The old "Ace Bandage" is great for stabilizing all sorts of injuries to joints. They are also useful for holding splints in place.
- Formable splint ("Sam Splint") This splint material is aluminum, backed by foam rubber. The splint can be cut with medical scissors and is flexible, allowing it to be bent to conform to the injured limb. It is held in place by elastic bandages. The fastest and easiest way to make a splint.
- Cold packs Applying ice or a cold pack to a recently injured joint can help to prevent swelling. For this to help, it must be applied as quickly as possible and held there for the first 15 minutes, as that is when most of the swelling occurs.

As you can see, this is a lot to keep in a first aid kit. Even so, you're going to find that you are limited by space. It is a good idea to have a box of backup supplies, to replenish your first aid kit, when things are used. For example, you will probably only keep one Sam Splint in the kit, but when you use it, it would be nice to have another to replace it.

#### **Basic Medicines You Should Have**

It is impossible to stockpile all the medicines you might need for every eventuality. Fortunately, that's not necessary. Even if you did, you don't have the knowledge or the test equipment to diagnose any and every possible medical situation. However, just stockpiling a few basic medicines will take care of most situations you are likely to be faced with.

Other then the antibiotics, most of these are over the counter medicines. However, antibiotics are controlled to prevent them being misused. Without proper understanding of their use, taking antibiotics indiscriminately can be dangerous.

- Pain relievers Common pain relievers like Acetaminophen and Ibuprofen are the first thing you want to include in your medical kit. These also work as anti-inflammatories. Many times, pain is caused by inflammation, rather than by damage. In either case, these pain relievers will help reduce pain and can also help to reduce fever.
  - One thing you should know about these pain relievers is that both of them can be taken at the same time. So, if you have a situation where there is severe pain, you can stagger taking both of these medications, taking one, than the other, every two hours. They do not react with each other and will not cause the patient any harm.
- Antihistamine The number one medicine for dealing with allergies, colds and the flu.
   Antihistamines block nerves to prevent the excess forming of mucus. It does not cure anything, but merely deals with the symptoms, while the body's immune system overcomes the disease.
- Decongestant Used for clearing blocked sinuses. One must be careful with the use of decongestants, especially nasal sprays, as it is possible to become physically addicted to them. However, for the short duration of most colds, there is no risk.
- Imodium, also known as Loperamide The most effective OTC medicine for dealing with diarrhea. As one can become dehydrated from diarrhea, it must be treated seriously, especially in a survival situation. Improperly purified water can cause diarrhea.

- Antibacterial ointment (Bacitracin or Neosporin) For protecting cuts and abrasions from becoming infected.
- Hydrocortisone cream Used extensively for treatment of rashes and other skin irritations.
   More than anything, it reduces the itching so that the patient doesn't scratch it and enlarge the infected area.
- Meclizine (Dramamine) For the relief of nausea, vomiting and motion sickness. It can cause drowsiness in some people, so it can be used as a sleep aid for those people.
- Clotrimazole cream Used for treatment of various types of fungal infections. If you buy the lotion, rather than the cream, it can also be used for vaginal fungal infections.

In addition to these, it would be a good idea to have some basic antibiotics on hand. This can be tricky, as the right antibiotic needs to be used for the right infection. Here is some basic information on the most common antibiotics and what they can be used for. There are a number of medical websites online which can give you more information about these medicines. <sup>1</sup>

- Ampicillin a form of penicillin, but more effective. Can be used for respiratory tract infections, bacterial meningitis, urinary tract infections and gastrointestinal infections.
- Azithromycin A great all-around antibiotic. Can be used for Chlamydia, Lyme Disease, PID, Syphilis, Typhoid and much more. There is a slight chance of abdominal pain, nausea and diarrhea.
- Cephalexin Great for almost any type of respiratory infection, such as bronchitis, pneumonia, strep, etc. as well as middle ear infections. It is also safe for pregnant women.
- Amoxicillin This antibiotic will handle most of the same infections as Cephalexin. It is also safe for pregnant women and small children. Some people are allergic to it, in which case Erythromycin should be used.
- Erythromycin Another good antibiotic for respiratory and middle ear infections. It is also good for syphilis, lyme disease and chlamydia. It is also safe for women and children. However, it can have side effects, such as nausea, abdominal pain, vomiting and diarrhea.
- Doxycyline Treats the same things as Erythromycin, however it is easier to find. Can also treat sinus infections, Typhus and Malaria. It should not be used by children, pregnant women or nursing mothers. It can cause kidney impairment and sensitive skin.
- Ciproflaxacin Best for urinary tract infections, prostrate infections and respiratory
  infections, as well as bacterial diarrhea, anthrax, and colitis. Should never be used by
  pregnant or nursing mothers.
- Metronidazole Used primarily for treating anaerobic bacteria in the intestine. It can also treat bacterial vaginosis, diabetic foot ulcers, joint or bone infections, lung or brain abcesses, meningitis and a few other infections. Should not be used by children, pregnant women or nursing mothers.

<sup>&</sup>lt;sup>1</sup> Please note that I am not a MD and therefore I cannot and am not prescribing these medicines or recommending that you use them for any particular purpose. The information I am providing here is commonly available on the internet. I recommend you study this out for yourself and always proceed with caution.

• SMZ-TMP - Sulfamethoxazone and Trimethrpin (the actual name) - Can treat most respiratory infections, but are often used for urinary tract infections. One of the best things about it is that it can be used to treat resistant staph.

While it is difficult to buy these antibiotics over the counter, there are ways of buying them. I buy them in the pharmacy in Mexico, where I don't need to hand over a prescription to buy them. You can also buy them through some online suppliers without a prescription. Be careful about this though, as not all online suppliers sell you what they say they are selling you.

Another very effective option is to buy these medications as veterinary pharmaceuticals. In most cases, they are the same medications, produced in the same factories, but packaged differently. While labeled as not being for human consumption, in a survival situation, they are much better than not having anything to use.

Some of the common veterinary equivalents for these antibiotics are:

- Ampicillin "Fish Cillin"
- Cephalexin "Fish Flex"
- Amoxicillin "Fish Mox"
- Doxycyline "Fish Cycline"
- Ciproflaxacin "Fish Flox"
- Metronidazole "Fish Zole"
- SMZ-TMP Sulfamethoxazone and Trimethrpin (the actual name) "Bird Sulfa"

Please be careful about allergic reactions to these antibiotics. Reactions can be severe at times. If you see any abnormal symptoms, be sure to terminate treatment immediately.

## **Understanding Hypothermia and Hyperthermia**

One of the most dangerous killers you are likely to encounter in any survival situation is hypothermia. It can not only cause problems during the time of the disaster itself, but all the way throughout the recovery process. Every year, countless lives are lost to this killer, many of them unreported, except in local media. There, they are often referred to as people who "died of exposure" or "froze to death."

People confuse hypothermia and hyperthermia all the time. That's simply because of the Latin prefixes to these terms. However, if you can remember that a child who is overly active is referred to as "hyperactive" or simple "hyper" then you will be able to remember that "hyperthermia" means too much heat. So, the other term, "hypothermia," means too little heat. While both are dangerous and both can kill you, hypothermia is more common and generally more dangerous.

It's easy to make the mistake of thinking that hypothermia can only happen when it is bitterly cold out, but that's not true. Since hypothermia is a lowering of the body's temperature, it can happen anytime when the ambient temperature is considerably lower than the body's natural core temperature. Every year there are people who die of hypothermia in the summertime, usually because they get wet.

Water makes the body radiate heat more quickly, just as perspiration does. So, if the person gets wet or their clothes get wet right before sundown, say by falling in a stream, they could be in grave danger. At the same time that the ambient temperature is dropping quickly, the person is radiating heat quickly.

Most types of fabric actually cause body heat to radiate faster when they are wet, than being naked. In fact, the only cloth that retains some of its insulating value when wet is wool. Even soaked through, wool will retain half its insulating value. But all others draw body heat away, sometimes as much as 200 times faster (a down jacket will do that).

Technically, hypothermia is a lowering of the body's core temperature. The body has several defenses it can put into play to avoid hypothermia. The first of these is shivering. When we shiver, muscles are being contracted and then allowed to relax again. That movement of the muscles burns energy, which is then converted to heat. The second defense is to slow the flow of blood to the extremities, so that the body's heat will stay in the core. Taken to an extreme, that can cause other problems, such as frostbite.

One of the problems with both hypothermia and hyperthermia is that it doesn't take much of a shift in the body's core temperature for the individual to lose the ability to think clearly. Once that happens, they probably won't be able to save themselves. There have literally been cases of people who seemed more or less okay, but hypothermia had progressed to the point where they walked right past their car and off into the woods, without seeing the car.

Because of this inability to recognize what is happening to ourselves, it is important to recognize and heed the first signs of hypothermia. It is also important to recognize it in others and watch out for it. Most people who are rescued from hypothermia are rescued by others, not by rescuing themselves.

There is a detailed list of symptoms, which breaks down by levels of hypothermia, but learning all the details isn't as useful as knowing the basic symptoms to look for. These are:

- Shivering
- Decreased awareness (especially of one's own condition)
- Confusion
- Inability to think clearly
- Apathy
- Loss of dexterity

As the individual progresses through the various stages of hypothermia, these symptoms will increase. For example, their dexterity will degrade to the point where they start to stumble. Their speech will become less clear and more slurred. They will make less effort to protect themselves from the cold, even to the point of acting as if they were warm. They can even reach a point where they stop shivering.

Treatment for hypothermia requires warming the person up immediately. That is accomplished by removing any wet clothing and getting them into a sleeping bag, if possible. Put another person in there with them, to share body heat with them. If there is shelter available, get them into it and

some heat going. Light a fire and get them close to it. You can also give them hot liquids to drink or hot soup to eat.

While hyperthermia is the opposite of hypothermia, there is some similarity in the symptoms, especially those referring to the person's mental state. However, they will also exhibit other symptoms which are particular to the heat:

- Nausea or vomiting
- Decreased appetite
- Severe thirst
- Generalized weakness and possible muscle spasms
- Headaches
- Their pulse may become irregular

Hyperthermia is treated by bringing the body's core temperature down. The easiest way to do that is to douse them in cool water (not ice water) or to use ice packs. In the hospital, they use alcohol, as it evaporates faster than water. If you have it available, submerging their body in water, while holding their head above the surface is about the fastest way to bring their temperature down.

## **Treating Wounds**

Proper treatment of wounds is important for two basic reasons; ensuring healing and preventing infection. Of the two, preventing infection is actually more important. During the Middle Ages, more people died of the infections caused by wounds, than by the wounds themselves.

Let's define what we are talking about here. For the purpose of discussion, when I use the word "wound" I'm referring to any unnatural opening in the skin. It doesn't matter if that's a scrape, cut, hole or tear, they are all the same thing. What makes them the same is that the skin is penetrated, making an opening for bacteria to enter the body.

The skin is actually a very important part of our autoimmune system, in that it is an almost impermeable barrier for bacteria, viruses and other germs. So, unnatural openings in the skin are worth being concerned about, regardless of how big or small they are.

- Before treating any sort of wound, it's important to make sure that you aren't going to
  introduce any bacteria into it. So, start by cleaning your own hands with antibacterial hand
  cleaner, all the way up to the elbows. Then, if you have them available, put on surgical
  gloves. While this may seem redundant, we're talking about your family's health, so it's
  worth taking the extra step.
- 2. Examine the wound to determine the extent of the injury. You need to notice if there are any foreign objects in the wound, how fast the blood is flowing and whether the skin comes back to meet over the injury.
- 3. The first actual step in treatment is to clean out the wound. There are two goals here. The first is to clean out any foreign objects, such as splinters, gravel or dirt. At the same time, you are hopefully removing at least some of the bacteria that might have entered the wound. Since bacteria are all around us and we can't see them, we have to assume that at least some have entered.

The easiest way to clean out a wound is with an irrigation syringe. This is a large plastic syringe with a plastic nozzle. It allows you to squirt water directly into the wound, even putting the nozzle below the surface if there is an opening. If you don't have an irrigation syringe, running water can be used. In either case, if the water is safe enough to drink, it's safe enough to irrigate the wound with. In an absolute emergency, urine can be used, as it is biologically pure.

- 4. Use alcohol or hydrogen peroxide for the next stage of the cleaning process. Water won't kill bacteria, but these will. You don't only want to clean the wound, but also the area around it.
- 5. Apply an antibacterial ointment to the wound to kill any bacteria. Make this a generous application, without becoming wasteful and globing it on. A thin coating over the entire open area is sufficient.
- 6. If the wound is bleeding profusely, it may be necessary to apply a blood clotting agent. This absorbs the blood and helps with the rapid formation of a scab to protect the wound. Blood clotting agents can either be in powder form or impregnated into a bandage.
- 7. If the wound is open in the sense that the skin doesn't meet, try to make it meet by pushing on the flesh on either side of the wound with your fingers. If it can be made to meet, it will heal faster. In a hospital, they would suture such a wound, but you can do just as well by using butterfly closures to hold the wound closed.
- 8. Cover the wound with a bandage which is large enough to ensure that the whole wound is covered by the gauze part of the bandage. This way, there will be something to absorb the blood and promote clotting. Tape the bandage in place, sealing all the edges and ensuring that the tape will not pull loose by movement of the limb.

Generally speaking, bandages should be changed every 24 hours. This is mostly because they become dirty. If the bandage becomes stuck to the wound, you may have to pull it loose, which could pull off part of the scab and cause the wound to start bleeding again. This should be done with care, to minimize blood loss.

Each time the wound is re-bandaged, clean the area and apply antibacterial ointment once again. While there may be a scab in place to protect the wound, your action of removing the bandage may have opened up the scab, allowing bacteria to enter. Better to play it safe and keep the wound clean.

## **Treating Broken Bones**

Broken bones are difficult to treat on your own. You are limited by the inability to see what is actually happening, unless there is a compound fracture and the bone is sticking out through the skin. These are extremely dangerous, with a high risk of permanent disability or even death.

In theory, all that has to be done with a simple fracture is to ensure that the bones are aligned and then immobilize them until they heal back together. Even a slightly more complex fracture, where the bones are separated, but haven't penetrated the skin only requires aligning the bones and immobilizing them for healing to occur. That's the theory anyway; in reality, it's difficult to properly align those bones if you don't know what you are doing.

The best thing to do is to immobilize the bones and get the patient to a doctor who knows more than you and I do. That means splinting the limb. For a splint to be effective, it must immobilize both of the joints that surround the break. So, a break to the shin would require immobilizing the knee and ankle. Any movement of either of these joints would cause the fracture to move as well.

Splints can be made of almost any stiff material. Tree branches have been effectively used for centuries. However, if you have it, a Sam Splint is much easier to work with. A Sam Splint is a piece of aluminum sheeting that is coated with about 1/4 inch of high density foam rubber on one side. It can be cut with medical scissors and shaped with your hands. This makes it a more or less universal splint for use in immobilizing any fracture in a limb.

The Sam Splint should be shaped off the patient's body, so as to not cause them any undue pain. Once shaped, place it on both sides of the limb and tie it in place. The easiest way to tie them in place is by using elastic bandages; the type that are used for sprained and strained joints.

If you absolutely have to set the bone, you will have to work by feel to locate the fracture and how the two ends of the bone are in relation to one another. If they are overlapping, the limb will need to be stretched, so that they can be guided into position. Once stretched, the ends of the bone will tend to find each other and settle into the correct position. Verify this by feel and then splint the bone.

There may be a possibility of a surface wound in conjunction with the fracture, even without a compound fracture. In that case, you'll have to decide which you have to deal with first. In most cases, you'll have to immobilize the fracture first, and then work on the wound. That means you have to ensure that you leave access to it, even when the splint is tied in place.

#### The Importance of Personal Hygiene

Personal hygiene is an important element in maintaining your health, especially in a survival situation. Many diseases are passed from person to person, especially in third-world countries, simply because of a lack of personal hygiene.

When we do something as common as eating, without ensuring the cleanliness of our hands, we open the door for bacteria to enter our bodies through our mouths. This problem becomes even worse when we are eating with our hands. So, something as simple as dirty hands can adversely affect our health.

Many people become sick during the aftermath of a crisis, because of lack of proper hygiene. We are accustomed to being able to use copious amounts of water to wash with, so when that water is not available, we tend not to keep ourselves as clean. While dirty hair won't make you sick, that's about the only part of your body you can let go, without some sort of risk of affecting your health.

It is possible to wash with very little water. I've had to learn this, because I travel to third-world and emerging countries. In many places, the "shower" consists of a small cement room and a bucket. You fill the bucket with water and use a smaller plastic container to scoop water out of it. About a quart is enough to wet your body, if you use it carefully. Then you soap your body and use the rest of the water carefully to rinse off. I've actually managed to wash myself, including my hair, with less than a gallon of water.

Keeping out clothes clean isn't as important as keeping our bodies clean, but who wants to put on dirty clothes after bathing? To save water on washing your clothes, put them in the bottom of the bathtub while you are taking your bucket shower. As you bathe, walk on your clothes, ensuring that they get wet. Then, once you're done bathing, you can wash your clothes in your bath water.

The other really big issue when it comes to personal hygiene is dealing with human waste. If you happen to have a septic tank at your home, you have an advantage. With a septic tank, you don't have to worry about city water and sewage working, to take care of your sewage. You can still use your toilet, although you should only flush it with grey water (water that has been used for cleaning) to conserve water.

If you don't have a septic tank, there are two options you can use. You have to realize that human waste, especially solid human waste is highly toxic, with a high concentration of bacteria. Improper disposal of this can cause serious health problems.

One option is to dig an old fashioned outhouse. If you do, you should keep it at least 100 feet from any water source. That means wells, streams and ponds, including those of your neighbors. Bacteria can travel through the ground and infect water sources, if they are too close. Don't allow your outhouse to be uphill from these places either, as that increases the distance the bacteria can travel.

If you live in a place where you can't dig a well, you can always use a five gallon bucket as a toilet, with a plastic bag inside. All you need to do, in order to do this, is to mount a toilet seat on the bucket. The bag can be removed every day and tied up, saving it until it is possible to dispose of it properly.

## A Quick Word About Herbal Medicine

Modern medicine has its roots in herbal medicine. Ancient doctors gathered herbs, flowers, seeds and plants, making their own medicines out of them. Many plants have medicinal properties, which have been passed down through the generations.

Today's pharmaceuticals are copies of what is naturally found in nature. Pharmaceutical laboratories look for naturally occurring chemicals which deal with diseases. They then develop an artificial means to create a chemical that is extremely close to the naturally occurring one, which will accomplish the same thing, but doesn't occur in nature. They then patent that new chemical and sell it a medicine.

The reason for all this is obviously profit. Pharmaceutical companies can't patent naturally occurring chemicals and can't make any money off of selling what you and I can pick in our backyards. So, they have to go through a lot of extra work. But, the natural remedies still work and often work better than what man has created.

In a post-disaster world, herbal medicine may be the only medicine available to us. While there are few people around who are true experts in this field, there are many books available. I would highly recommend buying a good book on herbal medicine and another on plant recognition, preferably written from the viewpoint of herbal medicine. That way, when the time comes, you'll have the information ready at hand.