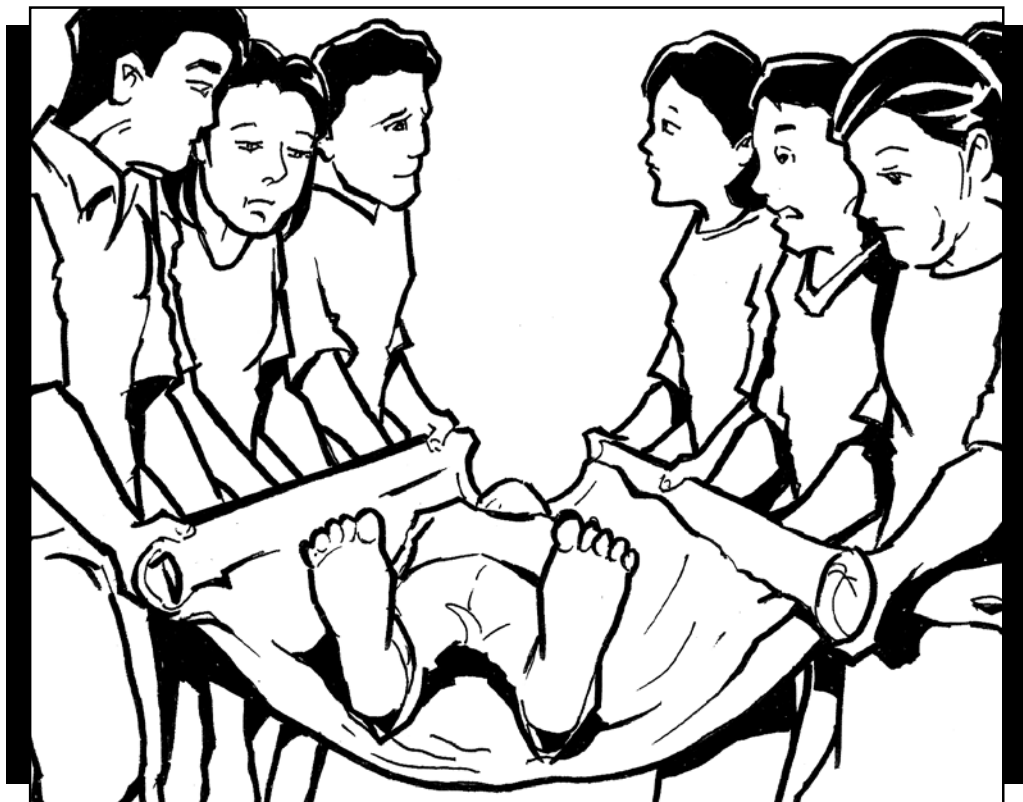


Emergency First Aid

a handbook for communities



**Clear simple step-by-step instructions for
resuscitation • treating injuries • emotional care**



Community Based Disaster Management (CBDM)

More information: www.idepfoundation.org



Third Edition, 2011 © IDEP Foundation

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THE AIM OF THIS BOOK

In the past, disaster management has generally been the responsibility of government agencies, working alongside local authorities and disaster affected communities. When disasters happen, communities often have to wait a long time for outside assistance to arrive. By being more prepared and knowledgeable about what can be done to mitigate and manage disasters communities can play a key role in ensuring that losses and suffering that may occur are kept to the minimum possible.

The development of IDEP's CBDM Kit has been made possible thanks to the hard work of many dedicated contributors over the years. In the development of this handbook, special thanks goes out to the people listed on the left.

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Developed with support from

BNPB, MPBI, UNESCO, USAID, OXFAM, and the people of Indonesia

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Emergency first aid

Emergency first aid can save lives, prevent injuries from getting worse, accelerate recovery, and help protect and resuscitate unconscious people. First aid is not only needed in times of disaster, these techniques can also help people who have suffered everyday accidents and trauma.

This section provides basic instructions on how to give emergency first aid. Giving first aid properly is not easy to do, especially in an emergency situation. However as explained above, proper first aid can save lives so it is highly recommended that as many community members as possible receive first aid training from a relevant organization such as the Red Cross or a local medical care providers.

***Make sure to read
and follow the
instructions in this
handbook.***

•

***Treating someone
using the wrong
methods can actually
make their condition
worse.***

•

***Every minute counts
for injured people
- so help them quickly!***

Immediate actions when helping injured people

1. Stay calm. Only calm people can help others
2. Do not help an injured person unless it is safe to do so. Make sure the road is safe and clear, check for any fire or electricity hazards, or anything that might be dangerous to you and those around you, such as damaged buildings that could fall, etc
3. Get help. Whenever possible, it is very important to call for help from professionals. If possible, send someone else to look for help, because injured people should not be left alone. If you are the only person on site, leave the injured person and seek help
4. Whenever possible, contact the nearest hospital or medical facilities. The information you give to them must be short, and include (1) the condition of the injured person/people, (2) how many injured people there are, and (3) the location where they are
5. Do not move injured people who have broken bones or back injuries without using proper equipment
6. Do not give food or drink to injured people
7. Give injured people emotional support. Emotional support improves an injured person's chances of survival. Even an unresponsive or unconscious person may be able to hear what you say. It is important to calmly explain to injured people that you are helping them

Resuscitation – what to do if someone is unconscious

Move the person's shoulder gently while asking them simple questions like 'what is your name?', 'how do you feel?', etc. A conscious person will respond with movement, sounds, or answering the questions.

If the person doesn't move or make any sounds they are unconscious. If this is the case

- 1. Call 118 (in Indonesia) or a relevant emergency number** in your area. Ask another person to do this if possible, so that you can stay with the injured person
- 2. Lay the person down.** Kneel beside them, close to their shoulder
- 3. Clear the person's airway.** Lift the person's chin and tilt their head back and up while holding their jaw with your free hand. Ensure that nothing is blocking the airway, such as food or the person's folded tongue. If there is anything in their mouth, use 2 fingers to remove it
- 4. Check their breathing.** **Watch** for the rising and falling of the lower chest and stomach. **Listen and feel** for the air flowing in and out of the nose and mouth by putting your cheek next to the person's face. After checking **for 5-10 seconds**, if the person is not breathing, immediately give them mouth-to-mouth resuscitation (see below)
- 5. Mouth-to-mouth resuscitation.** The person's head should be in a backward, tilted position. Pinch the nostrils. Take a deep breath, and seal the person's mouth with your lips. Blow firmly into their mouth. Ensure that the air you blow does not escape through the person's nose. Give one full breath making sure that the chest expands as you breath into it. If it doesn't expand, reposition the head by lifting the person's chin and tilting the head back and up, holding their jaw with one hand. Give another full breath. If the chest does not expand on the

second breath, continue with the procedure; do not reposition the head again. After the second breath **watch, listen, and feel** to see if the person has started breathing on their own. Note: giving two breaths should take about 5 seconds

- 6. If the person still does not start breathing by themselves,** start compressing their chest. To do this place the palm of one of your hands in the middle of the person's chest between the nipples, and then place your second hand on top of the first. Compress the person's chest by 4-5cm in a smooth uninterrupted rhythm as fast as you can (at least 100 compressions per minute). After 30 compressions give them 2 more breaths as explained above
- 7. Continue giving 2 breaths for every 30 chest compressions**
- 8. After 5 cycles (5 sets of 30 compressions and 5 sets of 2 breaths) watch, listen, and feel** to see if the person has started breathing by themselves. If possible, take turns with someone else to give yourself a rest. A fresh person will be less tired and more effective
- 9. If the person begins to breathe,** roll them over on to their side into the recovery position (see explanation below) and frequently check airway and breathing.

Note: if for some reason you are not comfortable or able to give mouth-to-mouth resuscitation giving chest compressions can still help.

When to stop trying to resuscitate an injured person

- **When the person regains consciousness or starts breathing on their own**
- **When professional health care providers arrive**
- **When you become exhausted or there is no hope for resuscitation.** If a person does not begin breathing after 20 minutes of CPR it is very unlikely that they will survive. After 30 minutes they are almost certainly dead. At this point, you should move on and help someone else



Note: even when trained professionals give CPR only 1 out of 10 people are successfully revived. A person's life is a precious thing, so CPR is definitely worth doing, but if you give CPR to someone and they don't survive **it's not your fault.**

If the person is burned, make sure they are safe from further injury by extinguishing the fire or thoroughly washing chemical substances from their skin. See section on burns for further instructions. **If they have been electrocuted,** see the section about injuries by electrocution.

Resuscitating infants and children under 8 years

- 1. If possible, immediately call for help**
- 2. Lay the infant or child flat on their back**
- 3. Open the child's airway** by slightly tilting their head up and backward. Clear the airway.
- 4. When the airway is clear,** position the child to lie slightly on their side. **For an infants under 1 year of age,** lay them flat on their back
- 5. If the child is not breathing,** seal the child's nose and mouth with your lips. Breathe into the nose and mouth 2 times. If there are still no signs of breathing, continue to the next step
- 6. Place your third and fourth fingers in the middle of the child's chest, 1.5cm below the nipples; compress the chest gently 2.5-3.5cm, 30 times**
- 7. Check breathing.** If there is no progress, give them assisted breathing and chest compressions as explain above. Continue trying to resuscitate the child until medical help arrives or the child starts to move or breathe



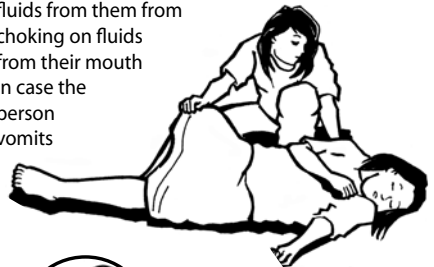
If the person is breathing but unconscious - recovery position

The recovery position is used when a person is breathing, but unconscious. It helps to keep the person's airways open and ensures that fluids drain away from the mouth, preventing choking.

IMPORTANT: Do not move an injured person who could have neck, back, or spinal injury. Leave them in the position you found them, unless they are in danger.

How to put someone in the recovery position

1. Lie the person flat on their back, straighten both their legs
2. Check their pockets to make sure there are no sharp objects or other dangerous objects
3. Cross one arm across the chest to the shoulder, and bend one leg so the knee is elevated (see below). Leave their other arm outstretched
4. Roll the person onto their side by pushing their shoulder and hip away from you
5. Place their head on their hand which is crossed over the shoulder. Their hand will act like a pillow, keeping the person's head slightly raised and will prevent fluids from them from choking on fluids from their mouth in case the person vomits



For infants under 1 year old

1. Lie the infant on their back and tilt the head backward
2. Turn their face slightly to the side to let fluid drain from the mouth and keep the airway open

Checking for and treating shock

When someone suffers a serious injury, they are also likely to be in shock. Shock can be very dangerous and a person's condition can deteriorate rapidly if they are in shock. This is why shock has to be treated immediately. If someone is in shock they may fall unconscious and need to be resuscitated using the methods described in the previous section.

Early signs of shock can include

- Restlessness, confusion, and disorientation
- Paleness, cold, and/or clammy skin
- Heartbeat can either be normal, slower, or faster than normal
- Thirst and dryness in the mouth

Signs that shock is getting worse or already serious

- Low or unreadable blood pressure
- Rapid, irregular, or inconsistent heartbeat
- Bluish or purplish lips or nails
- Staring eyes
- Irregular or heavy breathing
- Unconsciousness

When someone is in shock

- Lay the person flat on their back (on a blanket if possible) with their feet higher than their head
- Loosen the person's clothing and give them reassurance so they can stay calm
- Call an ambulance, 118 (in Indonesia), or a relevant emergency number in your area
- Gently place a blanket over the person if they feel cold
- Check the person's breathing every 10 minutes
- If the person is unconscious, and stops breathing, begin resuscitation (see previous section for instructions on how to do this)

A note about checking pulses

Checking pulse used to be considered an important part of first aid. However, expert opinion has changed about this and many professionals now do not recommend measuring pulses in emergency situations as more lives can be saved using the time it would take to measure pulses. In first aid, every second counts.

How to move injured people away from danger

Don't move seriously injured people unless they, or you, are in danger. Situations that could be dangerous include being near fire, moving vehicles, poisonous gas, or unstable buildings. If possible, give first aid where you find the injured person, while waiting for help to arrive.

If you must move an injured person, pay attention to the following

- If it is possible the person has a neck, back, or spinal injury, **DO NOT MOVE THEM** unless it is absolutely necessary
- No matter how you move an injured person, always pay special attention to holding the head, neck, and spine (especially if the person is unconscious). Hold their head, neck, and back as firmly and gently as possible to avoid making any injuries worse
- Lift the person firmly but gently, do not grab or jolt them

See the next section for various ways to move injured people.

Making and using stretchers

A table top, a door, or 2 strong poles with a blanket or sarong stretched between them can be used as a stretcher. If the person might have a neck, back, or spinal injury, make sure that any material you use as a stretcher is stiff (a hard surface).



Making a stretcher from a blanket (or sarong) and poles

Spread the blanket on the ground and place 2 poles on it, about $\frac{1}{3}$ of the blanket's width apart. Fold both sides of the of the blanket inwards, so both sides cover the opposite poles. The person's weight will hold the blanket and keep it in place.

IMPORTANT: Before using a stretcher for an injured person, test it on somebody of the same weight as them (or heavier) to make sure it is strong enough to hold them.

How to move an injured person without a stretcher



When a person has no serious injuries on their legs or feet: squat near their feet, hold the ankles tightly and drag the person slowly away from danger. Make sure that their head does not bump anything.

When a person has an injury on their feet or legs: bend down and hold the person's elbows tightly and drag them slowly away from danger (see the illustration). Do not drag injured people by their clothing.

IMPORTANT: When dragging an injured person, ensure that their body is as parallel to the ground as possible.

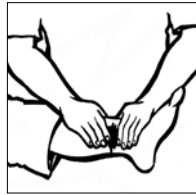
Moving an injured person by helping them walk

This method can be used for people who are able to walk with some help.

1. Stand beside the person on the injured side, unless they have an injury to their hand or shoulder. In this case it is best to stand on the opposite side of the injury (see illustration)
2. Wrap one of your hands around the person's waist, wrap the injured person's arm around your shoulder, and hold their hand. Support the person's body with your shoulder
3. Move with the person slowly, with your inside foot stepping forward first



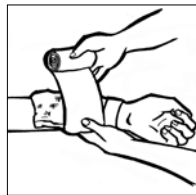
How to treat wounds



1. Use absorbent dressings

Cover wounds with a sterile, non-sticking absorbent dressing before you bandage them.

This will help reduce pain, and prevent infection and further injury. If sterile, non-sticking dressing is not available, use any absorbent, clean, and non-sticking cotton cloth, such as a piece of sarong or sheet. Women's sanitary napkins make very good absorbent dressings. Avoid using loose woven cloth directly on wounds, as the threads can stick to the wound, causing further problems.



2. Apply padding

Padding is prepared by folding a piece of bandage or cloth several times and then placing it on top (or around) the dressing. This

will increase absorbency and increase pressure to the wounded area to slow bleeding.

If there are broken bones, or foreign objects protruding from the wound, padding can also be used to hold the bandages away from the wound so the protruding object does not move. Note: do not try to move protruding objects or bones, this should be done by a professional.



3. Bandage the area

Injuries should be bandaged to control bleeding, hold dressings/ padding in place, reduce or prevent swelling, reduce

pain, and prevent limbs or joints from moving. Sarongs, sheets, or any other clean cloth can be used as a bandage.

Do not tie bandages too tightly. Signs that a bandage is too tight and needs to be loosened include swelling, pale or blue fingers, stiffness, and/or sharp, pinching pains. These are all signs that blood-flow is obstructed beneath the dressing.

Using a sling

While awaiting medical assistance, slings can be used to:

- Protect wounds from further injury
- Minimize pain
- Support/immobilize the affected body part



Making a splint

A splint (or support) can be used for broken knees, legs, arms, wrists, ankles, or fingers.

You can use a closed umbrella, rolled newspaper, wood, or other rigid items to make a splint.

When using splints:

- Ensure that the injured body part is kept still when placing the splint
- Make sure the splint is long enough so that both ends extend past the broken area
- Check the ties holding the splint every 15 minutes to make sure that blood flow is still good

Note: an uninjured leg can also be used as a splint. Tie the injured and uninjured legs firmly together as shown in the illustration below. Check the ties regularly to make sure they are not too loose or too tight. This is important to prevent the legs becoming swollen or having to be amputated.



About bleeding and how to stop it

Bleeding can be fatal if it is not treated. It is important to stop bleeding as soon as possible. There are 2 types of bleeding: external and internal. Internal bleeding (hemorrhaging) is harder to detect and can be more dangerous than external bleeding. Keep checking for the following signs of internal bleeding.

Signs of internal bleeding

- Blood in vomit or spit
- Swelling or hardening of the stomach or thighs
- Red or black feces
- Red urine
- Painful, tight, or limp stomach muscles
- Shock

Handling internal bleeding

1. Put the injured person in a comfortable, reclining position
2. Loosen the injured person's clothing
3. Lift and bend their legs (unless they are broken)
4. Seek medical assistance immediately
5. Do not give the person any food or drink
6. Constantly monitor the person for signs of shock

Handling external bleeding

1. Place the person in the recovery position (unless there is a chest wound)
2. Check if the wound has foreign objects or protruding bones. If this is the case, do not touch or move the wound or protruding objects. Use padding placed around the wound, and apply bandaging. See the previous section "How to treat wounds" for more information
3. If there are no protruding bones or foreign objects, apply pressure to the wound immediately. If there are no sterile bandages, use clean cloth or shirts, or even your hands to control the bleeding. If the person is able, they should be encouraged to apply pressure to the wound with their own hands in order to reduce the risk of cross-infection



4. Bandage the wound securely
5. Elevate the wounded body part higher than the person's heart
6. If blood soaks through the bandage, open it and change the dressing. If it appears that the bleeding has stopped, leave the bandage in place. Do not undo the bandage to inspect the wound as this could trigger renewed bleeding
7. Do not give the person any food or drink
8. Constantly monitor the person for signs of shock
9. Seek medical assistance **IMMEDIATELY**

How to stop severe external bleeding

1. Elevate the wounded body part higher than the person's heart
2. Apply pressure to the wounds with clean cloth. If none are available, use your hands
3. Continue applying pressure until the bleeding stops
4. If the bleeding continues, despite applying pressure, and the person is losing a lot of blood
 - Continue applying strong pressure to the wound
 - Elevate the wounded body part as high as you can
 - Tie cloth or a belt around the arm or the leg, as close to the wound as possible, and between the wound and the torso. Tighten the cloth or belt until the bleeding stops

IMPORTANT NOTES ABOUT USING THIS TECHNIQUE TO STOP BLEEDING

- This technique should only be used if no other technique has stopped the bleeding
- Loosen the tie every 30 minutes to check if the bleeding has stopped and check the blood circulation. If this is not done, or the tie is left on too long, there is a possibility that parts of the body that were deprived of blood with be injured and may even need to be amputated

IMPORTANT:

Never use thin rope or wire to stop bleeding.

Never use soil, oil, orange juice, coffee, or other substances to stop bleeding.

Always elevate the wounded body part and lower the person's head to avoid shock if the bleeding and injury are serious..

How to treat burns

Burns are generally classified as (1) first degree, (2) second degree, and (3) third degree. The higher the degree, the more serious the damage. In other words, third degree burns are the most serious.

First degree burns. Only the outer or the first layer of skin is burned. Skin may become red, dry, and swollen. The burned skin can peel and be quite painful. However, a doctor is not usually needed to treat this type of burn, unless the burn extends over a large area of the body. First degree burns normally heal within 5 or 6 days and rarely leave a scar.

Second degree burns. Two layers of skin are burned. Second degree burns can be life-threatening if they cover more than half the body. If only a small area of the skin is burned, the patient can still be treated without a doctor. However, if the burn covers more than a 3cm² area, or if the skin is blistered, or if the burn occurs on a hand, face, or groin, then the person should see a doctor.

Third degree burns. All three layers of skin are burned, with the burn possibly going deeper, into the muscles, nerves, bones or fat. With third degree burns the skin turns red, white, waxy, or scorched black. If nerves are burned, the person may not feel pain. The burned area oozes clear fluid. **The person must be taken to a doctor immediately.** Treatment from a skin specialist or a plastic surgeon is required, as severe scarring usually occurs.

First aid for burns

IMPORTANT: Do not apply salves, toothpaste, fat, butter creams, etc to burns because they can trap heat and complicate examination of the wound. Never break any blisters on the skin.

For serious or deep burns

1. If the person's clothing is on fire use blankets, towels, or sheets to smother and extinguish the fire. Make sure the person is not at risk of suffering further burns by extinguishing any fires, washing off any chemical substances that may have caused the burning, etc
2. Seek medical assistance immediately
3. Check the person's airway and breathing, if needed resuscitate them
4. Carefully check for signs of shock, which can be fatal. See the section on shock for more details

How to treat electrocution

Contact with electricity can cause a person to fall unconscious or even stop breathing; and can cause serious, deep burns and internal damage.

IMPORTANT: to avoid electrocution, do not touch the person directly until the source of electricity has been removed.

1. Switch off the electricity, if possible. Then remove the source of electricity. Use a long item that will not conduct electricity (like a piece of wood or a non-metal broomstick) to break the contact between the electrical source and the affected person. NEVER use a metal pole and stay clear of any water. Both metal and water conduct electricity and you could be electrocuted
2. Send someone to seek medical assistance IMMEDIATELY
3. Check the person's breathing. If they're not breathing try to resuscitate them (see previous section for details)
4. If the person is breathing, place them in the recovery position (see previous section for details)
5. Treat any injuries



Always administer first aid immediately. Every moment counts for an injured person in an emergency situation.



5. Stop any bleeding
6. While waiting for assistance, move the person to sheltered treatment area
7. Remove any items that might retain heat, such as clothing or jewelry. Use scissors to cut away clothing that can be easily removed, but do not remove any clothing that is attached to or embedded in the burns
8. Cool the burns with clean water, if possible, keep them under running tap water for as long as possible until they are cooled
9. Cover the cooled burns with clean, wet gauze or damp cloths. Never use cotton-wool or loose woven cloth
10. Elevate any injured body parts
11. If the person is conscious and thirsty, give them as much lukewarm water as possible, this will help to replace lost body fluids

For light or superficial burns

1. Cool the burned area under tap water for 10 minutes, or if this is not possible use damp cloth
2. Cover the burns with bandages or non-sticking, tight woven, clean cloth. Ensure that the bandages or cloth cover the burns completely. Young banana leaves can also be used to cover burns. The gel from aloe vera plants is healing and can help reduce pain



Emotional trauma in times of disaster

Who can be affected?

Anyone who finds themselves in a situation where they, or people they care about, have been impacted by a disaster will be deeply emotionally affected. This can also be true for people who are helping in a disaster area. Emotional trauma is very common, and in some cases even a normal healthy response, when dealing with what can be horrible situations during and after a disaster. The following reactions in people who have been impacted by a disaster are very common.

- Feeling hopeless, sad, and afraid
- Feeling helpless and unable to start new lives
- Changes in emotional or mental states usually build slowly from the time of loss

Post Traumatic Stress Disorder (PTSD)

Some people who experience disaster suffer very serious emotional and psychological impacts. Because of this, their mental health can be at risk. They can become traumatized and psychologically disturbed. These people need special care, appropriate support, and counseling. This type of severe mental or emotional trauma is sometimes called Post Traumatic Stress Disorder (PTSD).

People who may suffer from Post Traumatic Stress Disorder (PTSD) include

- Disaster survivors
- CDMG team members, volunteers, and other workers
- Other communities near or connected to the disaster zone
- People who have or have recovered from other emotional disturbances are prone to PTSD

People affected by PTSD will feel trapped within their own emotions and will lack the desire to reach out to others. Their condition can be made worse

by alcohol or drug abuse. In an area that has been struck by a disaster, everyone in the community should keep an eye out for anyone that shows the following symptoms, as they will not usually come forward and ask for help.



The main symptoms of PTSD

- Recurring memories of the traumatic experience
- Feeling depressed, distressed, or emotionally numb
- Unwilling to interact with others; feeling and acting isolated
- Avoiding activities, situations, or anything associated with the cause of the trauma
- Excessive worry, panic, and aggression
- Edginess, easily startled (startled people may repeat the statement that startled them)
- Insomnia and fear of sleep, nightmares
- Hearing voices and having visions of the traumatic experience
- Restlessness, anxiety, and stress
- Loss of appetite
- Suicidal feelings, or attempts to commit suicide or hurt oneself
- Self abuse and abuse of others
- Easily becomes emotional or cries

People who can help those suffering from emotional stress

Kindness and help from people that care and can offer emotional support is the main thing that assists people to recover emotional stability. Family members, friends, spiritual leaders, and community members can all help those that are suffering from emotional trauma. If the person is severely unstable, they may need professional counseling.

The CDMG's First Aid Team should monitor the emotional health of everyone in the community after a disaster has occurred, and ensure that anyone in need of special care is given the support necessary. They should encourage others in the area to support any efforts for emotional relief. They are responsible to cooperate with relevant parties (government and mental health organizations) to organize appropriate treatment, spiritual guidance, and therapy services as needed.

How to help people who are emotionally traumatized

Guidance from someone the survivor trusts (or from a professional counselor) can help people that are emotionally traumatized.

- Help them understand that what they are feeling is okay
- Help them understand that healing is a gradual process
- Talk to them about their traumatic experiences and help them let go
- Help them remember and experience the feelings of being calm and relaxed
- Understand what they have experienced
- Help them to relive the traumatic experience and move on by concentrating their thoughts, step-by-step, back into the present situation
- Help them to recall positive experiences. Remembering positive experiences will strengthen peoples emotional condition

Emergency First Aid

a handbook for communities

Clear simple step-by-step instructions for

resuscitating and moving injured people

treating injuries, bleeding, burns, and electrocution

providing emotional care for those in need



This Emergency First Aid handbook for communities is based on the results of local and international experiences and research, with input from many expert advisors. This handbook is part of a comprehensive Community Based Disaster Management series, which has been written in simple language and using detailed illustrations to ensure that the information can be easily understood by everyone. The series is suitable for anyone who is promoting community cooperation, disaster management, and sustainable development. This may include community groups, NGOs, government officials, universities, and other organizations.

IDEP's complete CBDM series includes

A manual, a resource book, DVDs, a series of comic books, and other resources

Developed by
IDEP Foundation



With support
from



ISBN 978-974-24-3337-3



More information: www.idepfoundation.org