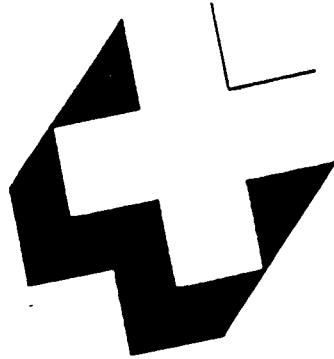


FM 21-11

FIELD MANUAL



**FIRST AID
FOR
SOLDIERS**

★ DISTRIBUTION RESTRICTION:

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

HEADQUARTERS, DEPARTMENT OF THE ARMY

This publication contains copyrighted material.

FIELD MANUAL

*FM 21-11

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 27 October 1988

FIRST AID FOR SOLDIERS

★ TABLE OF CONTENTS

			Page
PREFACE			xv
CHAPTER 1	FUNDAMENTAL CRITERIA FOR		
	FIRST AID		1-1
Section I.	Evaluate Casualty		1-1
	1-1. Casualty Evaluation (081-831-1000).....		1-1
	1-2. Medical Assistance (081-831-1000).....		1-7
Section II.	Understand Vital Body Functions		1-7
	1-3. Respiration and Blood Circulation.....		1-7
	1-4. Adverse Conditions.....		1-11
CHAPTER 2	BASIC MEASURES FOR FIRST AID		2-1
Section I.	Open the Airway and Restore Breathing		2-1
	2-1. Breathing Process.....		2-1
	2-2. Assessment (Evaluation) Phase (081-831-1000 and 081-831-1042).....		2-1
	2-3. Opening the Airway—Unconscious and not Breathing Casualty (081-831-1042)		2-3
	2-4. Rescue Breathing (Artificial Respiration).....		2-7
	2-5. Preliminary Steps — All Rescue Breathing Methods (081-831-1042).....		2-7
	2-6. Mouth-to-Mouth Method (081-831-1042).....		2-8
	2-7. Mouth-to-Nose Method.....		2-13
	2-8. Heartbeat.....		2-13
	2-12. Airway Obstructions.....		2-21
	2-13. Opening the Obstructed Airway— Conscious Casualty (081-831-1003).....		2-22
	2-14. Open an Obstructed Airway (081-831-1042)—Casualty Lying or Unconscious		2-26
Section II.	Stop the Bleeding and Protect the Wound		2-31
	2-15. Clothing (081-831-1016).....		2-31
	2-16. Entrance and Exit Wounds.....		2-32
	2-17. Field Dressing (081-831-1016).....		2-32

*This publication supersedes FM 21-11, 7 October 1985.

		Page
		2-18. Manual Pressure (081-831-1016)..... 2-35
		2-19. Pressure Dressing (081-831-1016)..... 2-36
		2-20. Tourniquet (081-831-1017)..... 2-39
Section	III.	Check and Treat for Shock 2-44
		2-21. Causes and Effects..... 2-44
		2-22. Signs/Symptoms (081-831-1000)..... 2-44
		2-23. Treatment/Prevention (081-831-1005)..... 2-45
CHAPTER	3	FIRST AID FOR SPECIAL WOUNDS 3-1
Section	I.	Give Proper First Aid for Head Injuries 3-1
		3-1. Head Injuries..... 3-1
		3-2. Signs/Symptoms (081-831-1000)..... 3-1
		3-3. General First Aid Measures (081-831-1000) ... 3-2
		3-4. Dressings and Bandages..... 3-5
Section	II.	Give Proper First Aid for Face and Neck Injuries 3-13
		3-5. Face Injuries..... 3-13
		3-6. Neck Injuries..... 3-14
		3-7. Procedure..... 3-14
		3-8. Dressings and Bandages (081-831-1033)..... 3-16
Section	III.	Give Proper First Aid for Chest and Abdominal Wounds and Burn Injuries 3-23
		3-9. Chest Wounds (081-831-1026)..... 3-23
		3-10. Chest Wound(s) Procedure (081-831-1026)..... 3-23
		3-11. Abdominal Wounds..... 3-28
		3-12. Abdominal Wound(s) Procedure (081-831-1025)..... 3-29
		3-13. Burn Injuries..... 3-33
		3-14. First Aid for Burns (081-831-1007)..... 3-33
Section	IV.	Apply Proper Bandages to Upper and Lower Extremities 3-37
		3-15. Shoulder Bandage..... 3-37
		3-16. Elbow Bandage..... 3-39
		3-17. Hand Bandage..... 3-40
		3-18. Leg (Upper and Lower) Bandage..... 3-42
		3-19. Knee Bandage..... 3-42
		3-20. Foot Bandage..... 3-43
CHAPTER	4	FIRST AID FOR FRACTURES 4-1
		4-1. Kinds of Fractures 4-1
		4-2. Signs/Symptoms of Fractures (081-831-1000)..... 4-2
		4-3. Purposes of Immobilizing Fractures..... 4-2
		4-4. Splints, Padding, Bandages, Slings, and Swathes (081-831-1034)..... 4-2
		4-5. Procedures for Splinting Suspected Fractures (081-831-1034)..... 4-3

		Page
	4-6.	Upper Extremity Fractures (081-831-1034).... 4-10
	4-7.	Lower Extremity Fractures (081-831-1034).... 4-14
	4-8.	Jaw, Collarbone, and Shoulder Fractures..... 4-17
	4-9.	Spinal Column Fractures (081-831-1000)..... 4-19
	4-10.	Neck Fractures (081-831-1000)..... 4-22
CHAPTER	5	FIRST AID FOR CLIMATIC INJURIES 5-1
	5-1.	Heat Injuries..... 5-1
	5-2.	Cold Injuries..... 5-8
CHAPTER	6	FIRST AID FOR BITES AND STINGS 6-1
	6-1.	Types of Snakes..... 6-1
	6-2.	Snakebites..... 6-5
	6-3.	Human and Other Animal Bites..... 6-9
	6-4.	Marine (Sea) Animals..... 6-10
	6-5.	Insect Bites/Stings..... 6-11
	6-6.	Table..... 6-15
CHAPTER	7	FIRST AID IN TOXIC ENVIRONMENTS 7-1
Section	I.	Individual Protection and First Aid
		Equipment For Toxic Substances 7-1
	7-1.	Toxic Substances..... 7-1
	7-2.	Protective and First Aid Equipment..... 7-1
Section	II.	Chemical-Biological Agents 7-3
	7-3.	Classification..... 7-3
	7-4.	Conditions for Masking Without Order or Alarm..... 7-3
	7-5.	First Aid for a Chemical Attack (081-831-1030 and 081-831-1031)..... 7-5
Section	III.	Nerve Agents 7-6
	7-6.	Background Information..... 7-6
	7-7.	Signs/Symptoms of Nerve Agent Poisoning (081-831-1030 and 081-831-1031)..... 7-7
	7-8.	First Aid for Nerve Agent Poisoning (081-831-1030)..... 7-8
Section	IV.	Other Agent 7-21
	7-9.	Blister Agent..... 7-21
	7-10.	Choking Agents (Lung-Damaging Agents)..... 7-23
	7-11.	Blood Agents 7-24
	7-12.	Incapacitating Agents..... 7-25
	7-13.	Incendiaries..... 7-26
	7-14.	First Aid for Biological Agents..... 7-27
	7-15.	Toxins..... 7-28
	7-16.	Radiological..... 7-30

C2, FM 21-11

		Page
CHAPTER 8	FIRST AID FOR PSYCHOLOGICAL REACTIONS	8-1
	8-1. Explanation of Term "Psychological First Aid".....	8-1
	8-2. Importance of Psychological First Aid.....	8-1
	8-3. Situations Requiring Psychological First Aid.....	8-2
	8-4. Interrelation of Psychological and Physical First Aid.....	8-2
	8-5. Goals of Psychological First Aid.....	8-3
	8-6. Respect for Others' Feelings.....	8-3
	8-7. Emotional and Physical Disability.....	8-3
	8-8. Emotional Reaction to Injury.....	8-4
	8-9. Emotional Reserve Strength of Distressed Soldiers.....	8-5
	8-10. Battle Fatigue (and Other Combat Stress Reactions [CSR]).....	8-5
	8-11. Reactions to Stress.....	8-5
	8-12. Severe Stress or Battle Fatigue Reactions.....	8-8
	8-13. Application of Psychological First Aid.....	8-8
	8-14. Reactions and Limitations.....	8-10
	8-15. Tables.....	8-11
Appendix A	FIRST AID CASE AND KITS, DRESSINGS, AND BANDAGES	A-1
	A-1. First Aid Case with Field Dressings and Bandages.....	A-1
	A-2. General Purpose First Aid Kits.....	A-1
	A-3. Contents of First Aid Case and Kits.....	A-2
	A-4. Dressings.....	A-4
	A-5. Standard Bandages.....	A-4
	A-6. Triangular and Cravat (Swathe) Bandages.....	A-4
Appendix B	RESCUE AND TRANSPORTATION PROCEDURES	B-1
	B-1. General.....	B-1
	B-2. Principles of Rescue Operations.....	B-1
	B-3. Task (Rescue) Identification.....	B-1
	B-4. Circumstances of the Rescue.....	B-2
	B-5. Plan of Action.....	B-2
	B-6. Mass Casualties.....	B-3
	B-7. Proper Handling of Casualties.....	B-4
	B-8. Transportation of Casualties.....	B-4

C2, FM 21-11

		Page
	B-9.	Manual Carries (081-831-1040 and 081-831-1041)..... B-5
	B-10.	Improvised Litters (Figures B-15 through B-17) (081-831-1041)..... B-32
Appendix	C	COMMON PROBLEMS/CONDITIONS C-1
Section	I.	HEALTH MAINTENANCE C-1
	C-1.	General..... C-1
	C-2.	Personal Hygiene..... C-1
	C-3.	Diarrhea and Dysentery..... C-1
	C-4.	Dental Hygiene..... C-3
	C-5.	Drug (Substance) Abuse..... C-3
	C-6.	Sexually Transmitted Diseases..... C-3
Section	II.	First Aid For Common Problems C-6
	C-7.	Heat Rash (or Prickly Heat)..... C-6
	C-8.	Contact Poisoning (Skin Rashes)..... C-7
	C-9.	Care of the Feet..... C-8
	C-10.	Blisters..... C-9
Appendix	E	DIGITAL PRESSURE E-1
Appendix	F	DECONTAMINATION PROCEDURES F-1
	F-1.	Protective Measures and Handling of Casualties..... F-1
	F-2.	Personal Decontamination..... F-2
	F-3.	Casualty Decontamination..... F-10
Appendix	G	SKILL LEVEL 1 TASKS G-1
Glossary.....		Glossary-1
References.....		References-1
Index.....		Index-0

LIST OF ILLUSTRATIONS

1-1.	Airway, lungs, and chest cage.....	1-8
1-2.	Neck (carotid) pulse.....	1-9
1-3.	Groin (femoral) pulse.....	1-10
1-4.	Wrist (radial) pulse.....	1-10
1-5.	Ankle (posterial tibial) pulse.....	1-11
2-1.	Responsiveness checked.....	2-2
2-2.	Airway blocked by tongue.....	2-3
2-3.	Airway opened (cleared).....	2-4
2-4.	Jaw-thrust technique of opening airway.....	2-5
2-5.	Head-tilt/chin-lift technique of opening airway.....	2-6
2-6.	Check for breathing.....	2-8
2-7.	Head-tilt/chin-lift	2-9
2-8.	Rescue breathing.....	2-10
2-9.	Placement of fingers to detect pulse.....	2-11
2-18.	Universal sign of choking.....	2-23
2-19.	Anatomical view of abdominal thrust procedure.....	2-24
2-20.	Profile view of abdominal thrust.....	2-24
2-21.	Profile view of chest thrust.....	2-25
2-22.	Abdominal thrust on unconscious casualty.....	2-27
2-23.	Hand placement for chest thrust (Illustrated A-D).....	2-28
2-24.	Breastbone depressed 1 1/2 to 2 inches.....	2-29
2-25.	Opening casualty's mouth (tongue-jaw lift).....	2-30

Figure	Page
2-26. Opening casualty's mouth (crossed-finger method).....	2-30
2-27. Using finger to dislodge foreign body.....	2-31
2-28. Grasping tails of dressing with both hands.....	2-33
2-29. Pulling dressing open.....	2-33
2-30. Placing dressing directly on wound.....	2-34
2-31. Wrapping tail of dressing around injured part.....	2-34
2-32. Tails tied into nonslip knot.....	2-35
2-33. Direct manual pressure applied.....	2-35
2-34. Injured limb elevated.....	2-36
2-35. Wad of padding on top of field dressing.....	2-37
2-36. Improvised dressing over wad of padding.....	2-37
2-37. Ends of improvised dressing wrapped tightly around limb	2-38
2-38. Ends of improvised dressing tied together in nonslip knot.	2-38
2-39. Tourniquet 2 to 4 inches above wound.....	2-40
2-40. Rigid object on top of half-knot.....	2-41
2-41. Full knot over rigid object.....	2-41
2-42. Stick twisted.....	2-42
2-43. Free ends looped (Illustrated A and B).....	2-42
2-44. Clothing loosened and feet elevated.....	2-46
2-45. Body temperature maintained.....	2-46
2-46. Casualty's head turned to side.....	2-47

C2, FM 21-11

Figure	Page
3-1. Casualty lying on side opposite injury.....	3-6
3-2. First tail of dressing wrapped horizontally around head....	3-8
3-3. Second tail wrapped in opposite direction.....	3-9
3-4. Tails tied in nonslip knot at side of head.....	3-9
3-5. Dressing placed over wound.....	3-10
3-6. One tail of dressing wrapped under chin.....	3-10
3-7. Remaining tail wrapped under chin in opposite direction...	3-11
3-8. Tails of dressing crossed with one around forehead.....	3-11
3-9. Tails tied in nonslip knot (in front of and above ear).....	3-12
3-10. Triangular bandage applied to head (Illustrated A thru C).	3-12
3-11. Cravat bandage applied to head (Illustrated A thru C).....	3-13
3-12. Casualty leaning forward to permit drainage.....	3-15
3-13. Casualty lying on side.....	3-15
3-14. Side of head or cheek wound.....	3-18
3-15. Dressing placed directly on wound. (Illustrated A and B).	3-19
3-16. Bringing second tail under the chin.....	3-19
3-17. Crossing the tails on the side of the wound.....	3-20
3-18. Tying the tails of the dressing in a nonslip knot.....	3-20
3-19. Applying cravat bandage to ear (Illustrated A thru C).....	3-21
3-20. Applying cravat bandage to jaw (Illustrated A thru C).....	3-22
3-21. Collapsed lung.....	3-23

Figure	Page
3-22. Open chest wound sealed with plastic wrapper.....	3-25
3-23. Shaking open the field dressing.....	3-26
3-24. Field dressing placed on plastic wrapper.....	3-26
3-25. Tails of field dressing wrapped around casualty in opposite direction.....	3-27
3-26. Tails of dressing tied into nonslip knot over center of dressing.....	3-27
3-27. Casualty positioned (lying) on injured side.....	3-28
3-28. Casualty positioned (lying) on back with knees (flexed) up..	3-29
3-29. Protruding organs placed near wound.....	3-30
3-30. Dressing placed directly over the wound.....	3-31
3-31. Dressing applied and tails tied with a nonslip knot.....	3-32
3-32. Field dressing covered with improvised material and loosely tied.....	3-32
3-33. Casualty covered and rolled on ground.....	3-33
3-34. Casualty removed from electrical source (using nonconductive material).....	3-34
3-35. Shoulder bandage.....	3-37
3-36. Extended cravat bandage applied to shoulder (or armpit) (Illustrated A thru H).....	3-38
3-37. Elbow bandage (Illustrated A thru C).....	3-40
3-38. Triangular bandage applied to hand (Illustrated A thru E).	3-40
3-39. Cravat bandage applied to palm of hand (Illustrated A thru F).....	3-41
3-40. Cravat bandage applied to leg (Illustrated A thru C).....	3-42

C2, FM 21-11

Figure	Page
3-41. Cravat bandage applied to knee (Illustrated A thru C).....	3-42
3-42. Triangular bandage applied to foot (Illustrated A thru E)....	3-43
4-1. Kinds of fractures (Illustrated A thru C).....	4-1
4-2. Nonslip knots tied away from casualty.....	4-6
4-3. Shirt tail used for support.....	4-7
4-4. Belt used for support.....	4-7
4-5. Arm inserted in center of improvised sling.....	4-7
4-6. Ends of improvised sling tied to side of neck.....	4-8
4-7. Corner of sling twisted and tucked at elbow.....	4-8
4-8. Arm immobilized with strip of clothing.....	4-9
4-9. Application of triangular bandage to form sling (two methods).....	4-10
4-10. Completing sling sequence by twisting and tucking the corner of the sling at the elbow (Illustrated A and B).....	4-11
4-11. Board splints applied to fractured elbow when elbow is not bent (two methods) (081-831-1034) (Illustrated A and B).....	4-11
4-12. Chest wall used as splint for upper arm fracture when no splint is available (Illustrated A and B).....	4-12
4-13. Chest wall, sling, and cravat used to immobilize fractured elbow when elbow is bent.....	4-12
4-14. Board splint applied to fractured forearm (Illustrated A and B).....	4-13
4-15. Fractured forearm or wrist splinted with sticks and supported with tail of shirt and strips of material (Illustrated A thru C).....	4-13
4-16. Board splint applied to fractured wrist and hand (Illustrated A thru C).....	4-14

Figure	Page
4-17. Board splint applied to fractured hip or thigh (081-831-1034).....	4-14
4-18. Board splint applied to fractured or dislocated knee (081-831-1034).....	4-15
4-19. Board splint applied to fractured lower leg or ankle.....	4-15
4-20. Improvised splint applied to fractured lower leg or ankle.....	4-16
4-21. Poles rolled in a blanket and used as splints applied to fractured lower extremity.....	4-16
4-22. Uninjured leg used as splint for fractured leg (anatomical splint).....	4-17
4-23. Fractured jaw immobilized (Illustrated A thru C).....	4-17
4-24. Application of belts, sling, and cravat to immobilize a collarbone.....	4-18
4-25. Application of sling and cravat to immobilize a fractured or dislocated shoulder (Illustrated A thru D).....	4-19
4-26. Spinal column must maintain a swayback position (Illustrated A and B).....	4-20
4-27. Placing face-up casualty with fractured back onto litter.....	4-21
4-28. Casualty with roll of cloth (bulk) under neck.....	4-23
4-29. Immobilization of fractured neck.....	4-23
4-30. Preparing casualty with fractured neck for transportation (Illustrated A thru E).....	4-25
6-1. Characteristics of nonpoisonous snake.....	6-1
6-2. Characteristics of poisonous pit viper.....	6-2
6-3. Poisonous snakes.....	6-2
6-4. Cobra snake.....	6-3
6-5. Coral snake.....	6-4

C2, FM 21-11

Figure	Page
6-6. Sea snake.....	6-5
6-7. Characteristics of poisonous snake bite.....	6-5
6-8. Constricting band.....	6-7
6-9. Brown recluse spider.....	6-11
6-10. Black widow spider.....	6-12
6-11. Tarantula.....	6-12
6-12. Scorpion.....	6-12
7-1. Nerve Agent Antidote Kit, Mark I.....	7-6
7-2. Thigh injection site.....	7-8
7-3. Buttocks injection site.....	7-9
7-4. Holding the set of autoinjectors by the plastic clip.....	7-10
7-5. Grasping the atropine autoinjector between the thumb and first two fingers of the hand.....	7-10
7-6. Removing the atropine autoinjector from the clip.....	7-11
7-7. Thigh injection site for self-aid.....	7-11
7-8. Buttocks injection site for self-aid.....	7-12
7-9. Used atropine autoinjector placed between the little finger and ring finger.....	7-13
7-10. Removing the 2 PAM Cl autoinjector.....	7-13
7-11. One set of used autoinjectors attached to pocket flap.....	7-14
7-12. Injecting the casualty's thigh.....	7-18
7-13. Injecting the casualty's buttocks.....	7-19
7-14. Three sets of used autoinjectors attached to pocket flap....	7-21
A-1. Field first aid case and dressing (Illustrated A thru C).....	A-1

Figure	Page
A-2. Triangular and cravat bandages (Illustrated A thru E).....	A-5
B-1. Fireman's carry (Illustrated A thru N).....	B-6
B-2. Support carry.....	B-14
B-3. Arms carry.....	B-14
B-4. Saddleback carry.....	B-15
B-5. Pack-strap carry (Illustrated A and B).....	B-16
B-6. Pistol-belt carry (Illustrated A thru F).....	B-17
B-7. Pistol-belt drag.....	B-19
B-8. Neck drag.....	B-20
B-9. Cradle drop drag (Illustrated A thru D).....	B-21
B-10. Two-man support carry (Illustrated A and B).....	B-23
B-11. Two-man arms carry (Illustrated A thru D).....	B-25
B-12. Two-man fore-and-aft carry (Illustrated A thru C).....	B-27
B-13. Two-hand seat carry (Illustrated A and B).....	B-29
B-14. Four-hand seat carry (Illustrated A and B).....	B-30
B-15. Improvised litter with poncho and poles (Illustrated A thru C).....	B-32
B-16. Improvised litter made with poles and jackets (Illustrated A and B).....	B-33
B-17. Improvised litters made by inserting poles through sacks and by rolling blanket.....	B-33
C-1. Poison ivy.....	C-7
C-2. Western poison oak.....	C-7
C-3. Poison sumac.....	C-7
C-4. Protect an unbroken blister.....	C-9

C2, FM 21-11

Figure	Page
C-5. Drain the blister likely to break.....	C-10
E-1. Digital pressure (pressure with fingers, thumbs or hands)..	E-1
F-1. M258A1 Skin Decontamination Kit.....	F-4

Tables	Page
5-1. Sun or Heat Injuries (081-831-1008).....	5-6
5-2. Cold and Wet Injuries (081-831-1009).....	5-19
6-1. Bites and Stings.....	6-15
8-1. Mild Battle Fatigue.....	8-12
8-2. More Serious Battle Fatigue.....	8-13
8-3. Preventive Measures to Combat Battle Fatigue.....	8-14

★ PREFACE

This manual meets the emergency medical training needs of individual soldiers. Because medical personnel will not always be readily available, the nonmedical soldiers will have to rely heavily on their own skills and knowledge of life-sustaining methods to survive on the integrated battlefield. This manual also addresses first aid measures for other life-threatening situations. It outlines both self-treatment (self-aid) and aid to other soldiers (buddy aid). More importantly, this manual emphasizes prompt and effective action in sustaining life and preventing or minimizing further suffering. First aid is the emergency care given to the sick, injured, or wounded before being treated by medical personnel. The Army Dictionary defines first aid as "urgent and immediate lifesaving and other measures which can be performed for casualties by nonmedical personnel when medical personnel are not immediately available." Nonmedical soldiers have received basic first aid training and should remain skilled in the correct procedures for giving first aid. Mastery of first aid procedures is also part of a group study training program entitled the Combat Lifesaver (DA Pam 351-20). A combat lifesaver is a nonmedical soldier who has been trained to provide emergency care. This includes administering intravenous infusions to casualties as his combat mission permits. Normally, each squad, team, or crew will have one member who is a combat lifesaver. This manual is directed to *all* soldiers. The procedures discussed apply to all types of casualties and the measures described are for use by both male and female soldiers.

Cardiopulmonary resuscitative (CPR) procedures were deleted from this manual. These procedures are not recognized as essential battlefield skills that all soldiers should be able to perform. Management and treatment of casualties on the battlefield has demonstrated that incidence of cardiac arrest are usually secondary to other injuries requiring immediate first aid. Other first aid procedures, such as controlling hemorrhage are far more critical and must be performed well to save lives. Learning and maintaining CPR skills is time and resource intensive. CPR has very little practical application to battlefield first aid and is not listed as a common task for soldiers. The Academy of Health Sciences, US Army refers to the American Heart Association for the CPR standard. If a nonmedical soldier desires to learn CPR, he may contact his supporting medical treatment facility for the appropriate information. All medical personnel, however, must maintain proficiency in CPR and may be available to help soldiers master the skill. The US Army's official reference for CPR is FM 8-230.

This manual has been designed to provide a ready reference for the individual soldier on first aid. *Only the information necessary to support and sustain proficiency in first aid has been boxed and the task number has been listed.* In addition, these first aid tasks for Skill Level 1 have

C2, FM 21-11

been listed in Appendix G. The task number, title, and specific paragraph of the appropriate information is provided in the event a cross-reference is desired.

Acknowledgment

Grateful acknowledgment is made to the *American Heart Association* for their permission to use the copyrighted material.

Commercial Products

Commercial products (trade names or trademarks) mentioned in this publication are to provide descriptive information and for illustrative purposes only. Their use does not imply endorsement by the Department of Defense.

Standardization Agreements

The provisions of this publication are the subject of international agreement(s):

NATO STANAG	TITLE
2122	Medical Training in First Aid, Basic Hygiene and Emergency Care
2126	First Aid Kits and Emergency Medical Care Kits
2358	Medical First Aid and Hygiene Training in NBC Operations
2871	First Aid Material for Chemical Injuries

Neutral Language

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

Appendixes

Appendix A is a listing of the contents of the First Aid Case and Kits.

Appendix B discusses some casualty transportation procedures. Much is dependent upon the manner in which a casualty is rescued and transported.

Appendix C outlines some basic principles that promote good health. The health of the individual soldier is an important factor in conserving the fighting strength. History has often demonstrated that the course of the battle is influenced more by the health of the soldier than by strategy or tactics.

Appendix E discusses application of digital pressure and illustrates pressure points.

Appendix F discusses specific information on decontamination procedures.

Appendix G is a listing of Skill Level 1 common tasks.

Proponent Statement

The proponent of this publication is the Academy of Health Sciences, US Army. Submit changes for improving this publication on DA Form 2028 directly to Commandant, Academy of Health Sciences, US Army, ATTN: HSHA-CD, Fort Sam Houston, Texas 78234-6100.

CHAPTER 1

FUNDAMENTAL CRITERIA FOR FIRST AID

INTRODUCTION

Soldiers may have to depend upon their first aid knowledge and skills to save themselves or other soldiers. They may be able to save a life, prevent permanent disability, and reduce long periods of hospitalization by knowing *what* to do, *what not* to do, and *when* to seek medical assistance. Anything soldiers can do to keep others in good fighting condition is part of the primary mission to fight or to support the weapons system. Most injured or ill soldiers are able to return to their units to fight and/or support *primarily because they are given appropriate and timely first aid* followed by the best medical care possible. Therefore, all soldiers must remember the basics:

- Check for **BREATHING**: Lack of oxygen intake (through a compromised airway or inadequate breathing) can lead to brain damage or death in very few minutes.
- Check for **BLEEDING**: Life cannot continue without an adequate volume of blood to carry oxygen to tissues.
- Check for **SHOCK**: Unless shock is prevented or treated, death may result even though the injury would not otherwise be fatal.

Section I. EVALUATE CASUALTY

1-1. Casualty Evaluation (081-831-1000)

The time may come when you must instantly apply your knowledge of lifesaving and first aid measures, possibly under combat or other adverse conditions. Any soldier observing an unconscious and/or ill, injured, or wounded person must carefully and skillfully evaluate him to determine the first aid measures required to prevent further injury or death. He should seek help from medical personnel as soon as possible, but must NOT interrupt his evaluation or treatment of the casualty. A second person may be sent to find medical help. One of the cardinal principles of treating a casualty is that the initial rescuer must continue the evaluation and treatment, as the tactical situation permits, until he is relieved by another individual. If, during any part of the evaluation, the casualty exhibits the conditions for which the soldier is checking, the soldier must stop the evaluation and immediately administer first aid. In a chemical environment, the soldier should not evaluate the casualty