

70

41p.

MF-$0.65 HC-$3.29

Epilepsy; *First Aid; *Health Education; Heart Rate; Injuries; *Medical Treatment; *Physical Health; *Special Health Problems

Grades or Ages: Grades 7-9. Subject Matter: First aid and survival education. Organization and Physical Appearance: The guide is divided into five sections: bandaging skills, control of bleeding, conditions caused by extremes in temperatures, foreign substances in body openings, and other common emergencies. The publication format of four columns gives the outline of content, the major understandings and fundamental concepts, suggested teaching aids and learning activities, and supplementary information for teachers. The course objectives are presented in the introduction. Objectives and Activities: Each subsection contains questions and topics for discussion. The supplementary information provides teachers with further discussion material. Instructional Materials: Information is given on measuring body temperature, pulse, and respiration, a brief description on making bandages is also presented. Lists of multimedia resources are presented for teachers and students. Information is also given on the procurement of teaching kits, flip charts, mannequins, and injury simulations. Student Assessment: No provision is made. Options: The guide is suggestive only. (BRB)
HEALTH CURRICULUM MATERIALS
Grades 7, 8, 9

STRAND V — EDUCATION FOR SURVIVAL
FIRST AID AND SURVIVAL EDUCATION

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official National Institute of Education position or policy.

University of the State of New York/The State Education Department
Bureau of Secondary Curriculum Development/Albany 12224
1970
THE UNIVERSITY OF THE STATE OF NEW YORK
Regents of the University (with years when terms expire)

1984 Joseph W. McGovern, A.B., LL.B., L.H.D., LL.D., D.C.L.,  
   Chancellor ----------------------------- New York
1985 Everett J. Penny, B.C.S., D.C.S.,  
   Vice Chancellor ------------------------ White Plains
1978 Alexander J. Allan, Jr., LL.D., Litt.D. ------------------ Troy
1973 Charles W. Millard, Jr., A.B., LL.D., L.H.D. -------------- Buffalo
1977 Joseph T. King, LL.B. ---------------------------------- Queens
1974 Joseph C. Indelicato, M.D. ----------------------------- Brooklyn
1979 Francis W. McGinley, B.S., LL.B., LL.D. ----------------- Clens Falls
1971 Kenneth B. Clark, A.B., M.S., Ph.D., Litt.D. ------------ Hastings on Hudson
1983 Harold E. Newcomb, B.A. ------------------------------- Owego
1981 Theodore M. Black, A.B. ------------------------------- Sands Point

President of the University and Commissioner of Education
   Ewald B. Nyquist

Executive Deputy Commissioner of Education
   Gordon M. Ambach

Deputy Commissioner of Education
   Herbert F. Johnson

Associate Commissioner for Instructional Services
   Philip B. Langworthy

Assistant Commissioner for Instructional Services (General Education)
   Bernard F. Haake

Director, Curriculum Development Center
   William E. Young

Chief, Bureau of Secondary Curriculum Development
   Gordon E. Van Hooft

Director, Division of General Education
   Ted T. Grenda

Chief, Bureau of School Health Education
   John S. Sinacore
FOREWORD

This publication contains curriculum suggestions for teaching Strand V - Education for Aid and Survival Education, for grades 7, 8, and 9.

The publication format of four columns is intended to provide teachers with: a basic core in the first column; a listing of the major understandings and fundamental concepts which children are expected to achieve, in the second column; and information specifically designed for classroom teachers to provide them with resource materials, teaching aids, and supplementary information, in the third and fourth columns.

The comprehensive nature of the health program makes it imperative that teachers gain familiarity with all of the strands presently in print. In this way, important teaching-learning experiences will be developed by cross-referring from one strand to another.

It is recommended that the health coordinator in each school system review these materials and consult with teachers, administrators, and leaders of interested parent groups in order to determine the most appropriate manner in which to utilize this strand as an integral part of a locally and comprehensively developed program in health education.

The curriculum materials presented here are in tentative form and are subject to modification of content and sequence. Critiques of the format, content, and sequence are welcomed.

Gordon E. Van Hooft
Chief, Bureau of Secondary Curriculum Development

William E. Young
Director, Curriculum Development Center
FOREWORD

This contains curriculum suggestions for teaching Strand V - Education for Survival - First Edition, for grades 7, 8, and 9.

The mat of four columns is intended to provide teachers with: a basic content outline, listing of the major understandings and fundamental concepts which children may progress through the columns; and information specifically designed for classroom teachers which should include materials, teaching aids, and supplementary information, in the third and fourth columns.

The nature of the health program makes it imperative that teachers gain familiarity with the materials presently in print. In this way, important teaching learning experiences may be planned and presented, in which to utilize this strand as an integral part of a locally adapted, broad, and comprehensive health education.

The materials presented here are in tentative form and are subject to modification in the future. Critiques of the format, content, and sequence are welcomed.

Gordon E. Van Hooft
Chief, Bureau of Secondary Education
Curriculum Development
OPTIMAL HEALTH

KNOWLEDGE
- Concepts
- Generalizations
- Understandings
- Facts

ATTITUDE
- Values
- Appreciation

BEHAVIOR
- Basic Skills
- Decision Making

Strand I
PHYSICAL HEALTH
- Health Status
- Nutrition
- Sensory Perception
- Dental Health
- Disease Prevention and Control

Strand II
SOCIOLOGICAL HEALTH PROBLEMS
- Smoking and Health
- Alcohol Education
- Drugs and Narcotic Education

Strand III
MENTAL HEALTH
- Personality Development
- Sexuality
- Family Life Education

Strand IV
ENVIRONMENTAL AND COMMUNITY HEALTH
- Environmental and Public Health
- World Health
- Ecology and Epidemiology of Health
- Consumer Health
OPTIMAL HEALTH

**KNOWLEDGE**
- Concepts
- Generalizations
- Understandings
- Facts

**ATTITUDE**
- Values
- Appreciation

**BEHAVIOR**
- Basic Skills
- Decision Making

**Strand II**
**SOCIOLOGICAL HEALTH PROBLEMS**
- Smoking and Health
- Alcohol Education
- Drugs and Narcotic Education

**Strand III**
**MENTAL HEALTH**
- Personality Development
- Sexuality
- Family Life Education

**Strand IV**
**ENVIRONMENTAL AND COMMUNITY HEALTH**
- Environmental and Public Health
- World Health
- Ecology and Epidemiology of Health
- Consumer Health

**Strand V**
**EDUCATION FOR SURVIVAL**
- Safety
- First Aid and Survival Education
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>Overview</td>
<td>vi</td>
</tr>
<tr>
<td>Outcomes</td>
<td>vi</td>
</tr>
<tr>
<td>I. Bandaging Skills</td>
<td>1</td>
</tr>
<tr>
<td>A. Dressing</td>
<td>1</td>
</tr>
<tr>
<td>B. Bandage</td>
<td>5</td>
</tr>
<tr>
<td>II. Control of Bleeding</td>
<td>6</td>
</tr>
<tr>
<td>A. Types of bleeding</td>
<td>6</td>
</tr>
<tr>
<td>B. Direct pressure control</td>
<td>7</td>
</tr>
<tr>
<td>C. Pressure points</td>
<td>8</td>
</tr>
<tr>
<td>D. Tourniquet</td>
<td>8</td>
</tr>
<tr>
<td>III. Conditions Caused by Extremes in Temperatures</td>
<td>9</td>
</tr>
<tr>
<td>A. Burns</td>
<td>9</td>
</tr>
<tr>
<td>B. Heat exhaustion and sunstroke</td>
<td>13</td>
</tr>
<tr>
<td>C. Frostbite</td>
<td>14</td>
</tr>
<tr>
<td>IV. Foreign Substances in Body Openings</td>
<td>15</td>
</tr>
<tr>
<td>A. In the eye</td>
<td>16</td>
</tr>
<tr>
<td>B. In the ear</td>
<td>17</td>
</tr>
<tr>
<td>C. In the nose</td>
<td>17</td>
</tr>
<tr>
<td>V. Other Common Emergencies</td>
<td>18</td>
</tr>
<tr>
<td>A. Convulsions in children</td>
<td>18</td>
</tr>
<tr>
<td>B. Epilepsy</td>
<td>19</td>
</tr>
<tr>
<td>C. Head injuries in children</td>
<td>20</td>
</tr>
<tr>
<td>D. Acute gastric indigestion</td>
<td>20</td>
</tr>
<tr>
<td>E. Dizziness</td>
<td>21</td>
</tr>
<tr>
<td>F. Unconsciousness</td>
<td>22</td>
</tr>
<tr>
<td>G. Motion sickness</td>
<td>23</td>
</tr>
<tr>
<td>H. Toothache</td>
<td>23</td>
</tr>
<tr>
<td>Appendix A</td>
<td>25</td>
</tr>
<tr>
<td>Appendix B</td>
<td>25</td>
</tr>
<tr>
<td>Appendix C</td>
<td>26</td>
</tr>
<tr>
<td>Appendix D</td>
<td>26</td>
</tr>
<tr>
<td>Multimedia Resources</td>
<td>27</td>
</tr>
</tbody>
</table>
OVERVIEW

A knowledge of first aid procedures makes it possible for an individual to face and handle health emergencies which may occur in everyday living. The adolescent should begin to develop an awareness of his responsibility to others in these emergency matters. On the other hand, he should also become aware of the limitations of first aid and those things which he should not attempt. For example, first aid education should not go beyond emergency care and treatment. It is not its intent to teach students how to cure illness or to correct injuries.

The basic goals of first aid education, however, do include student instruction in those procedures which will bring about the prevention of (1) death, and (2) further injury to a victim of sudden illness or accident. Consequently, to bring about these ends, appropriate content and learning experiences should be provided.

It becomes obvious that teachers should be prepared to teach first aid and should hold an American Red Cross Instructor's Certificate or have received college training in first aid in becoming certificated as a health educator.

OUTCOMES

Students in grades 7, 8, and 9 should:

- learn how to lessen the possibilities for the occurrence of those emergencies that are most likely to affect junior high school students.
- learn how to deal with the emergencies which may occur in everyday living that require first aid.
- learn how to use the various kinds of first aid dressings, bandages, and other materials and equipment.
- develop an appreciation of the first aid procedures which will help to save lives and minimize injury.
- develop confidence in administering first aid in many kinds of emergency situations.
- acquire skills in improvising procedures whenever necessary.
I. Bandaging Skills

There are many everyday emergencies, e.g., cuts, burns, and lacerations which require bandaging.

In order for bandages to be effective they must be applied correctly.

Have students list some actual injuries they encountered within the past month.

- How were they treated?
- Who administered the first aid?
- Which ones required the attention of the physician?

Show the filmstrip *Dressings and Bandages Used in First Aid* which is produced by McGraw-Hill Films.

Have the students make a display of the kinds of dressings and bandages used in first aid.

A. Dressing

A dressing is any material applied directly over a wound or a burn.

What is a compress? How does it differ from a bandage? Why should it be sterile? What is a dressing?

Most dressings are gauze which pressurize very absorb to circulation. Cotton, if may be used. Cotton should be used directly o
V, FIRST AID AND SURVIVAL EDUCATION, GRADES 4, 5, 6, FOR INTRODUCTION.

There are many everyday emergencies, e.g., cuts, burns, and lacerations which require bandaging.

In order for bandages to be effective they must be applied correctly.

A dressing is any material applied directly over a wound or a burn.

Have students list some actual injuries they encountered within the past month.

- How were they treated?
- Who administered the first aid?
- Which ones required the attention of the physician?

Show the filmstrip *Dressings and Bandages Used in First Aid* which is produced by McGraw-Hill Films.

Have the students make a display of the kinds of dressings and bandages used in first aid.

What is a compress? How does it differ from a bandage? Why should it be sterile? What is a dressing?

Most dressings are made of gauze which is sterilized under pressurized steam. Gauze is very absorbent and permits air to circulate over the wound. Cotton, if wrapped in gauze, may be used as a compress. Cotton should not be placed directly over a wound, however.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.

The New York State Department of Health in conjunction with the New York Civil Defense Commission has prepared a 102-page 18½" x 28½" color flip chart on first aid. It is bound in covers which can be used as a stand on a desk or a table. It is also available in Spanish. It deals with dressings and bandages as well as other aspects of first aid.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

1. Functions

Dressings have several major functions.

Dressings should be sterile in order to prevent contamination of the wound.

Improper handling of dressings may cause them to become contaminated, which, in turn, will contaminate the wound.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What are the major purposes of dressings?

- to cover
- to protect
- to prevent a wound from being contaminated
- to prevent the wound from becoming contaminated

Why should the first aider be concerned about infections?

Discuss and demonstrate ways materials may be sterilized for use as compresses.

What are the best kinds of materials to use?

Demonstrate how a compress may be removed from a package and applied to the injury without contamination. Allow students to practice applying compresses on each other.

Show how a compress may be refolded without contaminating the inner surfaces.

Have a speaker from a first aid supply company discuss the industrial sterilization of first aid products. Take a field trip.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Dressings have several major functions.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What are the major purposes of dressings?

How do they tend to lessen pain from an injury?

Why should the first aider be concerned about infections?

Discuss and demonstrate ways materials may be sterilized for use as compresses.

What are the best kinds of materials to use?

Demonstrate how a compress may be removed from a package and applied to the injury without contamination. Allow students to practice applying compresses on each other.

Show how a compress may be refolded without contaminating the inner surfaces.

Have a speaker from a first aid supply company discuss the industrial sterilization of first aid products. Take a field trip.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Dressings are essential for the following purposes.

- to control hemorrhage
- to protect the wound from contamination by bacteria
- to absorb fluids from the wound
- to raise the temperature around the wound
- to relieve pain, especially in the case of burns

Dressings should be sterile in order to prevent contamination of the wound. Improper handling of dressings may cause them to become contaminated, which, in turn, will contaminate the wound.

Discuss and demonstrate ways materials may be sterilized for use as compresses.

What are the best kinds of materials to use?

Demonstrate how a compress may be removed from a package and applied to the injury without contamination. Allow students to practice applying compresses on each other.

Show how a compress may be refolded without contaminating the inner surfaces.

Have a speaker from a first aid supply company discuss the industrial sterilization of first aid products. Take a field trip.

If an object is sterile it is uncontaminated by germs. Sterilization means the freeing of any object or substance from all life of any kind. This is usually accomplished by heat, or the use of chemicals or ultraviolet radiation. Heat may be applied for sterilization in three ways: by steam or hot water (moist heat); by prolonged baking in an oven (dry heat); by complete incineration. For detailed information on the means of sterilization read: Martin Frobisher, Jr., Fundamentals of bacteriology. Philadelphia, W.B. Saunders Company, 1962.

If sterile compresses are not available, a clean fabric should be used. Some of the germs on the fabric may be removed by scorching with a...
2. Kinds

There are many different kinds of dressings. Certain kinds of injuries require special types of dressings.

- **Commercial Dressings**
  - Adhesive bandages
  - Bandage compresses of various sizes.

List and discuss the kinds of wounds which require a special dressing.

- What makes it special?
- Describe the special dressing.

Demonstrate:
1. How to remove and apply an adhesive bandage
2. How to remove and apply a bandage compress
3. In order to shake the corner of the cloth off the cloth of the dressing, the wound is placed through the touching of one of the corners of the cloth of the dressing. The wound is then placed through the cloth of the dressing.
There are many different kinds of dressings. Certain kinds of injuries require special types of dressings.

Commercially made dressings include:
- adhesive bandages
- bandage compresses
- gauze compresses of various sizes.

Suggested teaching aids and learning activities

- Trip to a first aid supply company. Contact Johnson and Johnson Company, New Brunswick, New Jersey, or Laerdal Medical Corporation, 136 Marbledale Road, Tuckahoe, N.Y. 10707.
- List and discuss the kinds of wounds which require a dressing.
- Have the class list the injuries which may require a special dressing.
  - What makes it special?
  - Describe the special dressing.
- Demonstrate: (1) how to remove and apply an adhesive bandage, (2) how to remove and apply a bandage compress.

Supplementary information for teachers

- Flame, ironing, heating it under close observation in a hot oven, or washing it with soap and water and then drying it thoroughly.
- Gauze squares come in various sizes ranging from a 1-inch square to a 3½-inch square. They are sealed in individual packages which ensure their sterility. They are made of many layers of folded gauze. Gauze squares are used primarily for burns and wounds.

In order to remove the compress shake the compress into one corner of the envelope, tear off the corner, grasp the edge of the compress, and pull it through the opening. Do not touch or breathe on the side of the dressing to be placed on the wound. Once the dressing is placed over the wound it may be secured with a bandage.

Adhesive compresses are available in various sizes. The adhesive is usually covered with one layer of crinoline to protect the adhesive. The adhesive compress acts as both a dressing and a bandage for small cuts or scratches.
<table>
<thead>
<tr>
<th>OUTLINE OF CONTENT</th>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive compresses usually consist of a pad of sterile gauze placed in the middle of a strip of adhesive.</td>
<td>Have students practice use of these dressings on simulated wounds.</td>
<td></td>
</tr>
<tr>
<td>The bandage compress consists of a pad made of several layers of sterile gauze sewed to the middle of a strip of gauze or muslin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>b. Improvised dressings</strong></td>
<td>Improvised dressings can be made from many materials including handkerchiefs, towels, and shirts.</td>
<td>Have students list materials which may be used for a compress, those which may be used for bandages, and those which may be used for a dressing. Improvised dressings can be made from many materials including handkerchiefs, towels, and shirts.</td>
</tr>
<tr>
<td></td>
<td>Have students list materials which should not be used in dressings and indicate the reasons.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have students make first aid kits. Include improvised dressings, compresses, and bandages.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have members of the class bring in sufficient numbers of shoe boxes so that each class member may make his own basic first aid kit.</td>
<td></td>
</tr>
</tbody>
</table>
**MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS**

Adhesive compresses usually consist of a pad of sterile gauze placed in the middle of a strip of adhesive.

The bandage compress consists of a pad made of several layers of sterile gauze sewed to the middle of a strip of gauze or muslin.

Improvized dressings can be made from many materials including handkerchiefs, towels, and shirts.

**SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES**

Have students practice use of these dressings on simulated wounds.

Have students list materials which may be used for a compress, those which may be used for bandages, and those which may be used for a dressing.

Have students make a list of materials which should not be used in dressings and indicate the reasons.

Have students make first aid kits. Include improvised dressings, compresses, and bandages.

**SUPPLEMENTARY INFORMATION FOR TEACHERS**

Read:


The common sizes of the bandage compress are 2, 3, and 4-inches square. The dressing is usually made so that by cutting or breaking a stitch the pad may be unfolded to twice the original size. It is a self-contained compress and bandage.

Accidents frequently occur in situations where standardized sterile compresses are not available. In such situations the first aider must be able to improvise a dressing.

Have members of the class bring in sufficient numbers of shoe boxes so that each class member may make his own basic first aid kit.
B. Bandage

1. Functions
   A bandage is a strip of gauze or other material used for wrapping a wound. Bandages have many uses such as wrappings for dressings and splints, and to give support.

2. Principles of bandaging
   A bandage should be applied snugly, but should not be too tight or too loose. The tips of the fingers and toes should be left exposed wherever possible so that color changes may be observed.

   A bandage should be applied with the injured limb in the position in which it is to be carried.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- Demonstrate how compresses may be made from a rolled bandage.
- Have class list and demonstrate the many uses of a bandage.
- Discuss: Basic principles of bandaging. Bandages which are too tight or too loose. Why bandages should be properly applied. Precautions which should be taken.

SUPPLEMENTAL ACTIVITIES

- If the bandage is too tight or too loose serious results may be produced. Skin discoloration cyanotic. Pain may result in numbness. A first with neg care has
A bandage is a strip of gauze or other material used for wrapping a wound.

Bandages have many uses such as wrappings for dressings and splints, and to give support.

A bandage should be applied snugly, but should not be too tight or too loose. The tips of the fingers and toes should be left exposed wherever possible so that color changes may be observed.

A bandage should be applied with the injured limb in the position in which it is to be carried.

Demonstrate how compresses may be made from a rolled bandage.

Have class list and demonstrate the many uses of a bandage.

Bandages are used:
- to hold dressings in place
- to anchor a splint
- as a wrapping to give support to a joint
- to partially immobilize an injured part
- to apply pressure to a wound to control bleeding

Discuss:
- Basic principles of bandaging
- Bandages which are too tight or too loose
- Why bandages should be properly applied
- Precautions which should be taken

If the bandage is too tight, the blood supply to the ends of the extremities may be seriously interfered with, resulting in grave complications including gangrene and paralysis. The color of the skin distal to a bandage applied too tightly will be cyanotic (bluish) or pale. Pain may be present, the extremity may become cold, and numbness and tingling may occur.

A first aider may be charged with negligence if reasonable care has not been used.
II. Control of Bleeding

Serious bleeding needs to be controlled as quickly as possible because:

. serious shock may occur
. death can occur from loss of blood

A. Types of bleeding

Bleeding may vary from that of minor cuts and scratches to hemorrhage from major arteries and veins.

The control of bleeding is the first major responsibility of the first aider.

Internal bleeding is treated the same as shock, and the symptoms will appear the same as in shock.

Explain the characteristics of blood coming from an artery, vein, capillary, lung, and other internal organs.


Simulaids are wound and bleeding simulations. This company has three kits available containing first aid

If wet, a bandage will shrink too tight and impair blood circulation.

A bandage that is too tight will cause death from internal bleeding.

Serious need for frequent bleeding from razors, bullets, and accidents.

Arterial bleeding characterized by profuse blood will ooze from a wound.

Venous bleeding from a wound is characterized by red blood.

Capillary bleeding is oozing.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Serious bleeding needs to be controlled as quickly as possible because:
1. serious shock may occur
2. death can occur from loss of blood

Bleeding may vary from that of minor cuts and scratches to hemorrhage from major arteries and veins.

The control of bleeding is the first major responsibility of the first aider.

Internal bleeding is treated the same as shock, and the symptoms will appear the same as in shock.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Explain the characteristics of blood coming from an artery, vein, capillary, lung, and other internal organs.


Simulaids are wound and bleeding simulations. This company has three kits available containing first

SUPPLEMENTARY INFORMATION FOR TEACHERS

If wet dressings are used, provision should be made for shrinkage. Shrinkage may result in the bandage becoming too tight and closing off circulation.

A bandage that is too loose may cause a dressing or splint to come off. If used to control bleeding, it may result in serious hemorrhage.

SEE APPENDIX D.

Serious bleeding and wounds frequently result from glass, razors, sharp metal, scissors, bullets, machinery, and car accidents.

Arterial bleeding is characterized by a flow of bright red blood which comes from the wound in spurts and may be very profuse.

Venous bleeding is characterized by a steady flow of dark red blood which may also be profuse.

Capillary bleeding is characterized by bright red blood oozing into the tissues. The
B. Direct pressure control

Most external bleeding can be controlled by applying pressure directly over the wound.

Pressure dressings may be used to effectively control mild bleeding from:
- capillaries
- veins
- arteries

The first aider should always treat for shock even though symptoms may not be present.

Why is it advisable to treat for shock even though it does not appear to be present?

Of value for this unit would be the 36 assorted stick-on wounds.

Blood t...wound and puddle is there.

Blood th...will be

Blood co...may be by coffee g...along the stomach.

Traumatic with inj...from wound etc. In...caused by quantiti...external cavity. Manual,
The first aider should always treat for shock even though symptoms may not be present.

Most external bleeding can be controlled by applying pressure directly over the wound.

Pressure dressings may be used to effectively control mild bleeding from:
- capillaries
- veins
- arteries

Demonstrate how to apply direct pressure over a wound using a sterile dressing. Have students work in pairs and practice the application of direct pressure to simulated wounds.

Demonstrate the application of pressure for the control of bleeding using a sterile gauze pad and roller bandage.

Why is it advisable to treat for shock even though it does not appear to be present?

Blood drips steadily from the wound and gradually forms a puddle in the tissues and clots there.

Blood that comes from the lungs will be bright red and frothy.

Blood coming from the stomach may be bright red or resemble coffee grounds depending on how long the blood has been in the stomach.

Traumatic shock is associated with injury to body tissues from wounds, fractures, burns, etc. In most instances it is caused by the loss of large quantities of blood either externally or within body cavity. See American Red Cross Manual, pp. 25-31.

A sterile dressing (compress) or a clean folded handkerchief is placed over the wound and firm pressure is applied with the hand.


### OUTLINE OF CONTENT

#### MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Pressure dressings may be used to control severe wounds to arteries or veins after bleeding is under control.

**C. Pressure points**

Pressure point control causes the bleeding to diminish but does not stop it.

- A body location where pulse is felt is a pressure point.
- A pressure point occurs where an artery comes close to the surface of the skin and passes over an underlying bone.

**D. Tourniquet**

The tourniquet should be used only for extremely severe hemorrhage that cannot be controlled by any other method.

The use of a tourniquet is justified if:

- large arteries have been severed in an extremity
- an extremity is partially or completely covered.

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- Care of the body may be simulated using Simulaid's wound simulations. Have students practice the application of pressure dressing with their partners.
- Have students practice the application of pressure dressing with their partners.

- The tourniquet is never justified when:  
  1. large arteries have been severed in an extremity
  2. an extremity is partially or completely covered.

- Discuss:
  - When and where should it never be used?
  - When may a tourniquet be used?
  - How and where should it be applied to a patient?

- List precautions to be observed in contemplating the use of a tourniquet.

- What may a tourniquet be made from?

- What material should be avoided?

---

**Care of the body may be simulated using...**

**The tourniquet is never justified when:**

1. large arteries have been severed in an extremity
2. an extremity is partially or completely covered.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Pressure dressings may be used to control severe wounds to arteries or veins after bleeding is under control.

Pressure point control causes the bleeding to diminish but does not stop it.

A body location where pulse is felt is a pressure point.

A pressure point occurs where an artery comes close to the surface of the skin and passes over an underlying bone.

The tourniquet should be used only for extremely severe hemorrhage that cannot be controlled by any other method.

The use of a tourniquet is justified if:

- Large arteries have been severed in an extremity.
- An extremity is partially or completely severed.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

and Simulaids wound simulations. Have students practice the application of pressure dressing with their partners.

Have students locate the various pressure points on themselves.

Which pressure points can be used to control bleeding?

Why are the others of little practical value?

Show the students how to take a pulse. Have them practice taking a pulse.

Discuss:

- When may a tourniquet be used?
- When and where should it never be used?

List precautions to be observed in contemplating the use of a tourniquet.

What may a tourniquet be made from?

What material should be avoided?

SUPPLEMENTARY INFORMATION FOR TEACHERS

Care must be taken not to make the bandage too tight since it may obstruct the flow of blood to the rest of the limb.

The two pressure points which are of greatest practical value are:

1. Pressure on the inner half of the upper arm, pressing the vessel against the bone
2. Pressure just below the groin pressing the vessel against the pelvic bone

Basic procedure for applying a tourniquet would include:

- Placing it close to the wound (about 1-2 inch) and above it.
- Applying it tightly enough to stop bleeding.
- Not removing it...taking patient to a physician as soon as possible
- Attaching a note to the injured indicating a tourniquet is in place.
III. Conditions Caused by Extremes in Temperatures

A. Burns

Burns are injuries to tissue caused by:
- high temperatures
- electricity
- radioactive substances
- chemicals

Burns are tissue lesions classified according to the severity as:
- first degree - redness
- second degree - blisters
- third degree - charring

Many emergencies result from exposure to extremes of temperature including burns, scalds, frostbite, heat exhaustion, heat cramps, and sunstroke.

Have students list conditions which may result from extremes in temperatures. (Include both hot and cold.)

What are burns?
What causes burns?
How are burns classified?

Demonstrate the proper use of a tourniquet. Have students practice applying a tourniquet to a partner.

Burns involve the skin involving both the intensity and extent of burns.

See Red pp. 114
Many emergencies result from exposure to extremes of temperature including burns, scalds, frostbite, heat exhaustion, heat cramps, and sunstroke.

Burns are injuries to tissue caused by:
- high temperatures
- electricity
- radioactive substances
- chemicals

Burns are tissue lesions classified according to the severity as:
- first degree - redness
- second degree - blisters
- third degree - charring

What are burns?
What causes burns?
How are burns classified?

In teaching this area the teacher should discourage the use of the tourniquet as well as to emphasize its proper use when it must be used.

Burns vary from minor ones involving the outer layers of the skin to severe ones involving underlying tissues. Both the extent and the intensity of damage to tissues determine the seriousness of burns.

Burns are classified by degree according to their depth or seriousness. In first degree burns, the damage is limited to the outer layer of the epidermis and is characterized by reddening, warmth, swelling, and pain. Blisters are not present.
1. Thermal burns

Burns caused by excessive heat are called thermal burns.

First aid for thermal burns consists of:

- covering the burn with a dry, sterile compress
- treating for shock

Have the class define thermal burns.

List the major and most common causes of thermal burns.

- How can these be prevented?
- What is the basic first aid for all thermal burns?

Discuss first aid treatment for burns.

Refer to bandaging, Section I.

- Why cover the burn with a dry compress? Why not a wet compress?
Burns caused by excessive heat are called thermal burns.

First aid for thermal burns consists of:
- covering the burn with a dry, sterile compress
- treating for shock

Have the class define thermal burns.

List the major and most common causes of thermal burns.
- How can these be prevented?
- What is the basic first aid for all thermal burns?

Discuss first aid treatment for burns.

Refer to bandaging, Section I.

- Why cover the burn with a dry compress? Why not a wet compress?

In second degree burns, damage extends through the epidermis and involves the dermis. There is deep red swelling, pain, and blistering. There is leakage of plasma from the blood into the tissues causing the top layers of the skin to rise and form blisters.

In third degree burns there is destruction of both the epidermis and the dermis. The surface may be charred, coagulated, or white and lifeless.

Read:
American National Red Cross. *First aid textbook*, pp. 70-78.


First aid consists of relieving pain, preventing shock, and preventing infection. The exclusion of air from the burn helps to relieve pain. The application of a thick sterile dressing will help to relieve and prevent contamination. The administration of fluids is all important.
OUTLINE OF CONTENT

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

"Burn shock" may result in death. First aid procedures should be started immediately to prevent or control shock.

2. Electrical burns

An electrical burn may result from:

- electricity arcing between the power source and the victim
- being struck by lightning.

The major problem in electrical burns is the secondary effects that involve the heart and respiration, which may require more immediate treatment than the burn itself.

3. Chemical burns

Chemical burns result from contact with:

- strong acids
- alkalies
- corrosives

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- Why is treatment for shock essential in first aid for burns?
- What is an electrical burn?
- What causes electrical burns?
- What precautions should the first aider take regarding electrical burns?
- What are the first aid procedures for electrical burns?
- How do these procedures differ from thermal burns?

- How do chemical burns differ from thermal or electrical burns?
- Discuss the causes and prevention of chemical burns.

Read:

Cole, W. First aid management. Henders medical 210-219
**MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS**

"Burn shock" may result in death. First aid procedures should be started immediately to prevent or control shock.

An electrical burn may result from:
- electricity arcing between the power source and the victim
- being struck by lightning.

The major problem in electrical burns is the secondary effects that involve the heart and respiration, which may require more immediate treatment than the burn itself.

**SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES**

- What is an electrical burn?
- What causes electrical burns?
- What precautions should the first aider take regarding electrical burns?
- What are the first aid procedures for electrical burns?
- How do these procedures differ from thermal burns?

**SUPPLEMENTARY INFORMATION FOR TEACHERS**

Electrical burns occur more frequently in industry than in homes. Coming in contact with a charged electrical wire is a common cause.

First aid involves freeing the person from contact with the electrical wire, giving artificial respiration and cardiac massage, covering the burned area with a sterile dressing, and treating for electrical shock. Medical aid should be sought immediately.

Read:


Examples of chemicals that will burn the skin include sulfuric acid, hydrochloric acid, nitric acid, lye, caustic soda, lime, ammonia, and phosphorus.

Chemical burns result from contact with:
- strong acids
- alkalies
- corrosives

How do chemical burns differ from thermal or electrical burns?

Discuss the causes and prevention of chemical burns.
### MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Containers of many household chemicals list first aid procedures on their label.

First aid procedures include:
- washing away the chemical with water
- neutralizing the chemical

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students list the chemicals found in their home (or commonly found in most homes) which can potentially cause burns. How should these chemicals be kept?

Do the labels on the containers list first aid procedures? Why?

Discuss first aid procedures for various kinds of chemicals.

What are the causes of sunburn?

What precautions should be taken when using sun lamps? Healing?

Can one get a sunburn on a cloudy day? Why?

How effective are commercial preparations in protection from sunburn? Relieving pain?

---

### 4. Sunburn

Overexposure to the sun may produce very serious burns.

Sunburn is caused by overexposure to ultraviolet rays from the sun or a sunlamp.

Most cases of sunburn are the result of failure to observe simple precautions in the sun.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Containers of many household chemicals list first aid procedures on their label.

First aid procedures include:

- washing away the chemical with water
- neutralizing the chemical

Overexposure to the sun may produce very serious burns.

Sunburn is caused by overexposure to ultraviolet rays from the sun or a sunlamp.

Most cases of sunburn are the result of failure to observe simple precautions in the sun.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students list the chemicals found in their home (or commonly found in most homes) which can potentially cause burns. How should these chemicals be kept?

Do the labels on the containers list first aid procedures? Why?

Discuss first aid procedures for various kinds of chemicals.

SUPPLEMENTARY INFORMATION FOR TEACHERS

The chemical should be washed off with large quantities of water. If first aid directions are available on the label, they should be followed. After removing the chemical, a sterile dressing should be applied and the person taken to a physician. Acid burns should be washed with a dilute solution of bicarbonate of soda. Alkali burns should be washed with a dilute solution of vinegar.

Read:

Sunburns are normally of the first or second degree. The injured area should not be exposed to the sun again unless healing is complete.

Read:
B. Heat exhaustion and sun stroke

The distinction between sun stroke and heat exhaustion is that in exhaustion the body temperature remains about normal whereas in stroke it is high.

Heat exhaustion is the most common condition resulting from exposure to excessive heat.

Have the class distinguish between heat stroke and heat exhaustion.

What are the causes of:

- heat stroke?
- heat exhaustion?

Why does the body temperature rise during heat stroke?

What is the first aid for heat stroke?

Symptoms: headache; nausia; dizziness; nausea; palpitation; and shock and may follow:

What is the first aid for heat exhaustion?

How are the treatments alike? How do they differ?

Heat stroke is a life-threatening condition that requires immediate medical attention. It is characterized by a high body temperature and can lead to organ failure if left untreated. Heat exhaustion, on the other hand, is a less severe condition that can be managed with proper hydration and rest. The treatments for both conditions vary, with heat stroke requiring more aggressive interventions than heat exhaustion.
The distinction between sun stroke and heat exhaustion is that in exhaustion the body temperature remains about normal whereas in stroke it is high.

Heat exhaustion is the most common condition resulting from exposure to excessive heat.

Have the class distinguish between heat stroke and heat exhaustion.

What are the causes of:
1. heat stroke?
2. heat exhaustion?

Why does the body temperature rise during heat stroke?

What is the first aid for heat stroke?

What is the first aid for heat exhaustion?

How are the treatments alike? How do they differ?

Heat stroke or sun stroke is a condition where there is a disturbance of the heat-regulating mechanisms of the body. There is a cessation of sweating which results in a tremendous rise in body temperature which might cause death. Individuals over the age of 40 are more susceptible to this condition.

Symptoms include flushed face; headache; rapid pulse; dizziness; nausea; very high temperature (108 degrees or higher); vomiting; unconsciousness; and convulsion. Profound shock and circulatory collapse may follow and lead to death.

Heat exhaustion is a condition resulting from exposure to excessive heat and is characterized by prostration and varying degrees of circulatory collapse.
C. Frostbite

Frostbite is injury to tissues resulting from freezing.

Frostbite is similar to a burn in that cells and tissues have been destroyed.

Frostbite can occur without a person being aware of it.

Define frostbite. What causes frostbite?

List situations where frostbite is most likely to occur. Include everyday activities, sports, occupations, etc.

Discuss some of the misconceptions about frostbite, its care and after effects.

What is a chilblain? How does it compare with frostbite?

The symptoms include: nausea, pallor, sweating, salt and pepper skin, pale color, pressure sensation, numbness, tingling, pain, edema, blistering, and ulceration.

Frostbite occurs when body tissues are exposed to cold temperatures for a long period of time. Long periods of cold weather can increase the risk of frostbite.

Frostbite and chilblains are both caused by cold temperatures, but they occur in different ways. Frostbite occurs when body tissues are exposed to cold temperatures for a long period of time. Chilblains occur when body tissues are exposed to cold temperatures for a short period of time.

Superfrost may refer to frostbite in the toes, cold.
<table>
<thead>
<tr>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
<th>SUPPLEMENTARY INFORMATION FOR TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frostbite is injury to tissues resulting from freezing.</td>
<td>Define frostbite. What causes frostbite?</td>
<td>The symptoms of heat exhaustion include dizziness; faintness; nausea; weakness; rapid pulse; pale, cool, and moist skin; sweating is profuse which causes salt depletion and dehydration; shallow breathing; low blood pressure; slight elevation of body temperature.</td>
</tr>
<tr>
<td>Frostbite is similar to a burn in that cells and tissues have been destroyed.</td>
<td>List situations where frostbite is most likely to occur. Include everyday activities, sports, occupations, etc.</td>
<td>Frostbite is caused by exposure to cold, especially moist cold. Long periods of inactivity in cold weather or while wearing tight and wet clothing contribute to frostbite. The nose, ears, cheeks, fingers, and toes are most frequently affected. People with poor circulation or those who have consumed beverages alcohol are more prone to frostbite.</td>
</tr>
<tr>
<td>Frostbite can occur without a person being aware of it.</td>
<td>Discuss some of the misconceptions about frostbite, its care and after effects.</td>
<td>Frostbitten parts become cold and numb and take on a grayish yellow or white color. A painful tingling sensation may be felt as the part begins to freeze. Blisters may develop. Superficial or deep gangrene may result.</td>
</tr>
<tr>
<td></td>
<td>What is a chilblain? How does it compare with frostbite?</td>
<td>A chilblain consists of inflammation and swelling of the feet, toes, or fingers caused by cold. Pain may also be present.</td>
</tr>
</tbody>
</table>
IV. Foreign Substances in Body Openings

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Extreme care must be taken when thawing out frozen tissues or else additional damage will result.

Dirt, food, and other substances may accidentally get lodged in the:
- eye
- ear
- nose

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

After discussing all of the topics under burns and other conditions caused by abnormal temperatures, make up skits involving first aid emergencies that deal with these injuries. Skits can be written.

The person from the tissue should gently apply a dressing to the tissue. Damaged drinks must be immersed in cool water for 15 minutes before the person is allowed to move. Damaged drinks must be immersed in cool water for 15 minutes before the person is allowed to move.

Read:
- American First Aid Manual
- Cole, First Aid
- Hender, Medical
- Lyght, Manual Therapy

List the body openings where foreign objects may enter.
**MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS**

Extreme care must be taken when thawing out frozen tissues or else additional damage will result.

**SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES**

After discussing all of the topics under burns and other conditions caused by abnormal temperatures make up skits involving first aid emergencies that deal with these injuries. Skits can be written.

**SUPPLEMENTARY INFORMATION FOR TEACHERS**

The person should be removed from the freezing temperatures as soon as possible. The tissues should be rewarmed as gently as possible, thawing tissue should never be massaged nor should heat be directly applied. Frozen parts should be immersed in water which is maintained at a temperature of 103 to 107.5 degrees Fahrenheit. Damaged tissue should be protected from injection. Hot drinks may be given to the victim.

Read:

**SUPPLEMENTARY INFORMATION FOR TEACHERS**

List the body openings where foreign objects may enter.

- eye
- ear
- nose

Frequently foreign substances may result in discomfort when they enter body openings. Occasionally, however, because of the nature of the object or its location, it may create an emergency situation requiring first aid.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

A. In the eye

The eye is an extremely delicate organ.

If the first aider is in doubt about removing the object without causing further injury, he should cover the eye by placing a sterile gauze over the closed eye and bandage it in place.

Chemical substances in the eye may be a serious threat to vision.

Flush the eye with clean water if irritating chemicals should get into the eye.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What protective mechanisms does the eye have to help prevent objects from entering?

How does the eye react to foreign substances to remove them?

Demonstrate the proper technique for removing foreign objects from the eye.

List the steps to be taken in removing an object from the eye.

Discuss the circumstances in which the first aider should not attempt to remove objects from the eye. What procedure should the first aider follow in this event?

Discuss the circumstances under which chemicals may splash into the eyes.

List the kinds of chemicals commonly found at home or school which could be irritating to the eyes.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

The eye is an extremely delicate organ.

The first aider should be in doubt about removing the object without causing further injury, he should cover the eye by placing a sterile gauze over the closed eye and bandage it in place.

Chemical substances in the eye may be a serious threat to vision.

Flush the eye with clean water if irritating chemicals should get into the eye.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What protective mechanisms does the eye have to help prevent objects from entering?

How does the eye react to foreign substances to remove them?

Demonstrate the proper technique for removing foreign objects from the eye.

List the steps to be taken in removing an object from the eye.

Discuss the circumstances in which the first aider should not attempt to remove objects from the eye. What procedure should the first aider follow in this event?

Discuss the circumstances under which chemicals may splash into the eyes.

List the kinds of chemicals commonly found at home or school which could be irritating to the eyes.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Specks on the lower lid can easily be seen and removed with moistened gauze or cotton. If the foreign body is on the upper lid, it can sometimes be removed by drawing the upper lid down over the lower lid and then looking up, down, left, and to the right and blowing the nose gently.

Another way in which the foreign object may be removed from the upper lid is to grasp the eyelash gently and turn the lid back over a cotton swab. If the speck is seen, it can be easily removed with a cotton swab.

If the foreign body is imbedded in the eyeball, a dressing should be placed over the closed eye and the person taken to a physician.

Read:


## OUTLINE OF CONTENT

<table>
<thead>
<tr>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. In the ear</strong></td>
<td></td>
</tr>
<tr>
<td>Extreme care must be taken when removing objects from the ears because of the danger of damaging the eardrum and causing infection.</td>
<td>Discuss and demonstrate how foreign objects should be removed from the ear.</td>
</tr>
<tr>
<td>What are the first aid procedures?</td>
<td></td>
</tr>
<tr>
<td>What kinds of care should be taken to avoid further injury?</td>
<td></td>
</tr>
</tbody>
</table>

| **C. In the nose**                             |                                              |
| Children frequently place objects in the nose. | List the kinds of objects which are most likely to become lodged in the nose. |
| Insects may get lodged in the nose.           | Discuss and demonstrate how these objects may be removed. |

In which occupations is this most likely to occur?

- Eye
- Skin
- Ear
- Nose

What precautions are taken by schools to protect students from irritating chemicals?

- Industrial arts
- Home economics
- Physical education
- Chemistry
- Business education

Flushing is not a recommended method. Remove the object using force with a dropper or by allowing the child to sneeze.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

In which occupations is this most likely to occur?

What precautions are taken by schools to protect students from irritating chemicals? [Industrial arts - home economics - physical education - chemistry - business education]

Extreme care must be taken when removing objects from the ears because of the danger of damaging the eardrum and causing infection.

Discuss and demonstrate how foreign objects should be removed from the ear.

. What are the first aid procedures?

. What kinds of care should be taken to avoid further injury?

Children frequently place objects in the nose.

Insects may get lodged in the nose.

List the kinds of objects which are most likely to become lodged in the nose.

Discuss and demonstrate how these objects may be removed.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Supplementary Information for Teachers


Eye burns involving chemicals occur in many industries where acids, alkalies, and other corrosive chemicals are used. Many chemicals found in the home can produce serious burns to the eyes; e.g., ammonia and other cleaners.

Flush the eye with ample quantities of water first - consult a physician immediately.

Beads, seeds, stones, and other foreign objects are frequently put into the ears by children. A drop or two of mineral, olive, or baby oil may be placed in the ear. Tilt the head to allow the oil to run out. The object will flow out with the oil. Consult a physician if this method fails. Do not probe into the ear for an object.

The victim should blow the nose gently to dislodge the object. If the object is not readily dislodged, a physician should be consulted.
V. Other Common Emergencies

A. Convulsions in children

1. Causes

The occurrence of convulsions is indicative of some underlying medical problem and is not a disease in itself.

A first aider should be prepared to handle most common medical emergencies that may occur in his presence.

Elicit from students the common medical emergencies that occur in the home, school, playground, and at work.

Show and discuss the filmstrip on Nursing care of the sick and injured which is used with lesson number 9 of the Medical Self Help Training program. See page 34.

Define convulsive reaction. A convulsive reaction is characterized by sudden onset of convulsive activity involving consciousness. The causes of convulsive reactions include febrile seizures, epilepsy, concussion, substance abuse, and occur in the presence of a high fever.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

A first aider should be prepared to handle most common medical emergencies that may occur in his presence.

The occurrence of convulsions is indicative of some underlying medical problem and is not a disease in itself.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Elicit from students the common medical emergencies that occur in the home, school, playground, and at work.

Show and discuss the filmstrip on Nursing care of the sick and injured which is used with lesson number 9 of the Medical Self Help Training program. See page 34.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Define convulsive reaction.

List the causes of convulsive reactions.

A convolution is a disorder of a cerebral function, characterized by recurrent attacks involving changes in the state of consciousness, motor activity, or sensory phenomena, sudden in onset and brief in duration. They may appear at the onset of acute infectious diseases such as scarlet fever, whooping cough, tonsillitis, and pneumonia. Other causes include gastrointestinal upsets, epilepsy, low blood calcium, congenital defects, concussion, poisoning from such substances as lead, or lack of oxygen. Convulsions frequently occur in children as a result of a high body temperature.
<table>
<thead>
<tr>
<th>OUTLINE OF CONTENT</th>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. First aid</td>
<td>Muscle spasms and twitching of varying degrees of severity may be present.</td>
<td>Discuss the symptoms of convulsions in children.</td>
</tr>
<tr>
<td></td>
<td>The major objective is to protect the child from injury.</td>
<td>Discuss the first aid for convulsions.</td>
</tr>
<tr>
<td>B. Epilepsy</td>
<td>Epilepsy is probably the most common condition in which convulsions are seen.</td>
<td>Discuss the nature of epileptic convulsions.</td>
</tr>
<tr>
<td></td>
<td>Epilepsy is a condition characterized by convulsive reactions.</td>
<td></td>
</tr>
</tbody>
</table>

"Epilepsy is probably the most common condition in which convulsions are seen. Epilepsy is a condition characterized by convulsive reactions."


"Epilepsy is probably the most common condition in which convulsions are seen. Epilepsy is a condition characterized by convulsive reactions."

**MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS**

- Muscle spasms and twitching of varying degrees of severity may be present.
- The major objective is to protect the child from injury.
- Epilepsy is probably the most common condition in which convulsions are seen.
- Epilepsy is a condition characterized by convulsive reactions.

**SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES**

- Discuss the symptoms of convulsions in children.
- Discuss the first aid for convulsions.
- Discuss the nature of epileptic convulsions.

**SUPPLEMENTARY INFORMATION FOR TEACHERS**

Convulsive reactions may last for several seconds to a few minutes. The child may be in a stuporous condition or may fall asleep.

The child should be put in a position and location where he will not injure himself. Clothing should be loosened. If he vomits, his head should be turned to the side.

A physician should be called as soon as possible.


Epilepsy may be a result of a cerebral lesion which may have resulted from a birth trauma or other injury.
C. Head injuries in children

Head injuries are one of the most common emergencies of childhood.

Most head injuries occur from falls.

Head injuries should never be neglected.

D. Acute gastric indigestion

Acute gastric indigestion may be a sign of an infectious disease or appendicitis.

Appendicitis should always be suspected.

Protecting the victim from injury is the primary objective of first aid in epilepsy.

Discuss and demonstrate first aid procedures for convulsions.

What is the greatest danger to the epileptic?

What are some causes of head injuries in children?

Why do they occur?

List the first aid procedures for head injuries.

What is meant by gastric disturbance?

Is it always "indigestion"?

First aid procedures for convulsions.

Flat, Medica, as quick as possible.

Gastric indigestion.

ed.

pp.

Read: Clark, ed.

Frequent or organic, for a period semi-conscious.
<table>
<thead>
<tr>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
<th>SUPPLEMENTARY INFORMATION FOR TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting the victim from injury is the primary objective of first aid in epilepsy.</td>
<td>Discuss and demonstrate first aid procedures for convulsions.</td>
<td>First aid is aimed primarily at preventing the individual from injuring himself. A gag may be placed between the teeth to prevent the tongue from being bitten. Constrictive clothing should be loosened and objects around him removed so that injury will not result. Medical help should be obtained.</td>
</tr>
<tr>
<td>Head injuries are one of the most common emergencies of childhood.</td>
<td>What is the greatest danger to the epileptic?</td>
<td>Read: Clark, R.L. &amp; Cumley, R.W. eds. <em>The book of health.</em> pp. 354-355.</td>
</tr>
<tr>
<td>Most head injuries occur from falls.</td>
<td>What are some causes of head injuries in children?</td>
<td>Frequently, simple concussions don't result in permanent organic damage to the brain and the child will recover after a period of unconsciousness or semiconsciousness. The pupils of the eyes frequently are unequal in size.</td>
</tr>
<tr>
<td>Head injuries should never be neglected.</td>
<td>Why do they occur?</td>
<td>The child should be kept lying flat, warm, and comfortable. Medical aid should be obtained as quickly as possible.</td>
</tr>
<tr>
<td>Acute gastric indigestion may be a sign of an infectious disease or appendicitis.</td>
<td>List the first aid procedures for head injuries.</td>
<td>Gastric disturbances may be the result of:</td>
</tr>
<tr>
<td>Appendicitis should always be suspected.</td>
<td>What is meant by gastric disturbance?</td>
<td>. eating too much or too rapidly</td>
</tr>
<tr>
<td></td>
<td>Is it always &quot;indigestion&quot;?</td>
<td>. improper or inadequate choice of food</td>
</tr>
<tr>
<td></td>
<td></td>
<td>. emotional upset during eating</td>
</tr>
</tbody>
</table>
Any abdominal distress which lasts longer than two hours should be referred to a physician.

Dizziness is a disturbed sense of space relationship with a sensation of unsteadiness. Dizziness may be a symptom of some other disturbance. Although dizziness may in itself not be serious, the person may cause other injuries to himself as a result of being dizzy.

Eating and drinking should be avoided. Do not place hot packs on the abdomen. Avoid laxative, enema, or other medication.

List and discuss the first aid for gastric disturbances.

Have students describe dizziness.

List the different kinds of sensations students have experienced.

Make a list of possible causes of dizziness.

Why is dizziness likely to be dangerous?

Discuss first aid procedures for dizziness.

See Appendix pertaining to temperature.

"Dizziness which the subjectivity manifests in sense moving or resulting equilibriums, The Merck and Dohme, New Jersey, 1966. pp.

It becomes advancing causes imbalance, motion sickness, balance, infectious..."
Any abdominal distress which lasts longer than two hours should be referred to a physician.

Dizziness is a disturbed sense of space relationship with a sensation of unsteadiness.

Dizziness may be a symptom of some other disturbance.

Although dizziness may in itself not be serious, the person may cause other injuries to himself as a result of being dizzy.

Have students describe dizziness.

List the different kinds of sensations students have experienced.

Make a list of possible causes of dizziness.

Why is dizziness likely to be dangerous?

Discuss first aid procedures for dizziness.


It becomes more frequent with advancing age. There are many causes including ear disturbances, the effects of drugs, motion sickness, eye disturbances, cardiovascular disturbances, blood problems, infectious disease, and tumors.
<table>
<thead>
<tr>
<th>OUTLINE OF CONTENT</th>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Unconsciousness</td>
<td>Unconsciousness is a state of insensibility with no sensory impressions.</td>
<td>List the causes of unconsciousness.</td>
</tr>
<tr>
<td></td>
<td>There are many and varied causes of unconsciousness.</td>
<td>Why are &quot;red,&quot; &quot;white,&quot; and &quot;blue&quot; important to the first aider in dealing with unconsciousness?</td>
</tr>
<tr>
<td></td>
<td>Unconsciousness must always be considered a serious condition and the victim should be examined by a physician to determine the cause.</td>
<td>List and discuss the first aid procedures for each of the three major kinds of unconsciousness.</td>
</tr>
<tr>
<td></td>
<td>See Appendices B and C for information regarding how to take pulse and respiration.</td>
<td>See Appendices B and C for information regarding how to take pulse and respiration.</td>
</tr>
</tbody>
</table>

Have the victim lie down and be comforted. If possible, pass questions and answers to the victim. Do not... medical care...
### Major Understandings and Fundamental Concepts

Unconsciousness is a state of insensibility with no sensory impressions.

There are many and varied causes of unconsciousness.

Unconsciousness must always be considered a serious condition and the victim should be examined by a physician to determine the cause.

### Suggested Teaching Aids and Learning Activities

- List the causes of unconsciousness.
- Why are "red," "white," and "blue" important to the first aider in dealing with unconsciousness?
- List and discuss the first aid procedures for each of the three major kinds of unconsciousness.
- See Appendices 8 and C for information regarding how to take pulse and respiration.

### Supplementary Information for Teachers

Have the person lie down and rest. If the attack does not pass quickly, medical aid should be obtained. A subsequent medical check-up is imperative.

In "red" unconsciousness, the person has a red or flushed face accompanied by a strong pulse. It usually occurs in apoplexy, sun stroke, chronic alcoholism, and diabetes. First aid: lay the victim down; raise his head slightly; apply cold applications to his head; keep him warm and quiet.

In "white" unconsciousness the chief symptoms are a pale face and a weak pulse. It frequently results from severe hemorrhage, injury, or shock. First aid: keep the victim in a lying position with his head slightly lower than the rest of his body. Keep him warm and quiet.

In "blue" unconsciousness the person's skin is blue. It is found in cases of respiratory obstruction (asphyxia), acute heart attack, and cases of poisoning. First aid: apply artificial respiration if breathing has ceased. Keep the victim in a lying position and warm.
Motion sickness is more commonly referred to as:
- seasickness
- air sickness
- space sickness
- car sickness

Motion sickness is caused by exposure to unusual environmental forces on the body.

These forces do not affect all people equally. Some people have never experienced motion sickness.

A toothache results when the pulp of the tooth becomes irritated.

A toothache is usually a symptom of tooth decay or possible infection and all cases should be seen by a dentist as soon as possible.

List and discuss the causes of motion sickness.

Have class list some of the causes of a toothache.

Have students study and report to class on how the space program is dealing with motion sickness, weightlessness, and related problems.

A toothache results when the pulp of the tooth becomes irritated.

Have class list some of the causes of a toothache.

Refer to Strand I, Dental Health.

Most likely symptoms of head is more than tre" which may be preventions for motion sickness.

Nausea appears.
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Motion sickness is more commonly referred to as:
- seasickness
- air sickness
- space sickness
- car sickness

Motion sickness is caused by exposure to unusual environmental forces on the body. These forces do not affect all people equally. Some people have never experienced motion sickness.

A toothache results when the pulp of the tooth becomes irritated.

A toothache is usually a symptom of tooth decay or possible infection and all cases should be seen by a dentist as soon as possible.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

List and discuss the causes of motion sickness.

What part does the psychological make-up of the person play relative to motion sickness?

Why is an understanding of motion sickness important?

What is the prevention for motion sickness?

Have students study and report to class on how the space program is dealing with motion sickness, weightlessness, and related problems.

Have class list some of the causes of a toothache.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Most likely to induce motion sickness are rotational movements of the body in which the head is subject to rotation in more than one plane simultaneously. Motion produces strong stimuli upon the semicircular canals of the ear which play an important role in the maintenance of balance.

Nausea and vomiting are primary symptoms. Dizziness, headache, general discomfort, and fatigue may be present.

Prevention of motion sickness is easier and more worthwhile than treatment after nausea appears. There are medicines available on a physician's prescription which may help to relieve or prevent motion sickness.

OUTLINE OF CONTENT

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

The acquisition of knowledge and understanding by the student is an important aspect of the educational process. Since the development of a quality education is a significant problem, it is important to design teaching aids that are effective in promoting learning. The suggested teaching aids and learning activities outlined below are intended to facilitate this process.

Since poor development of intellectual abilities is detrimental to quality education, it is important to identify and address any deficiencies in the educational environment. The use of effective teaching aids and learning activities can help to combat these issues and improve educational outcomes.

The acquisition of knowledge and understanding by the student is an important aspect of the educational process. Since the development of a quality education is a significant problem, it is important to design teaching aids that are effective in promoting learning. The suggested teaching aids and learning activities outlined below are intended to facilitate this process.

Since poor development of intellectual abilities is detrimental to quality education, it is important to identify and address any deficiencies in the educational environment. The use of effective teaching aids and learning activities can help to combat these issues and improve educational outcomes.
The acid produced by bacteria and yeasts found in the mouth can initiate the tooth decay. Poor dental hygiene is an important contributing factor.

Since a toothache is a serious symptom of a dental health problem, first aid should be to seek proper treatment from a qualified dentist.
APPENDIX A

Measuring Body Temperature

Body temperature may vary a degree or so in a perfectly well person, but may be slight disorders as appendicitis. Therefore, everyone should know how to take a person's temperature. Sustained elevations should be reported to a physician.

Normal body temperature is 98.6° F. by mouth and about 1 degree higher by rectum. By comparison, about 97.4° F. There are different kinds of thermometers. An oral thermometer has a long comparison to the short, blunt bulb of a rectal thermometer. The thermometer should always using it to make sure it has been shaken down. It should be given several sharp, downward wrist to force the liquid through the constriction into the bulb.

The thermometer should be left in place for 3 minutes when taking an oral or rectal temperature by rectum, the bulb should be lubricated and gently inserted about 1 1/2-inches.

APPENDIX B

Counting the Human Pulse

The pulse varies with normal everyday activities. However, it may go up with fever and become weak as in hemorrhage or shock. Therefore, a first aider should know how to take a

The pulse rate for infants and children ranges from 92-180 beats per minute. For adults, generally ranges between 60-80. It is usually somewhat higher for women than it is for men most often taken at the wrist joint. Two or more fingers should be placed over the pulse and taking the pulse should not place his thumb over the victim's pulse because he may be feeling the beat.
APPENDIX A

Measuring Body Temperature

Temperature may vary a degree or so in a perfectly well person, but may be slightly elevated in such condition. Therefore, everyone should know how to take a person's temperature and that perturbed condition should be reported to a physician.

The normal temperature is 98.6° F. by mouth and about 1 degree higher by rectum. By armpit it averages 97.6° F. There are different kinds of thermometers. An oral thermometer has a long thin bulb in the blunt bulb of a rectal thermometer. The thermometer should always be checked before use and the bulb should be lubricated. It should be given several sharp, downward shakes with the finger to release the air through the constriction into the bulb.

The thermometer should always be checked before use and the bulb should be lubricated. It should be given several sharp, downward shakes with the finger to release the air through the constriction into the bulb. The thermometer should always be checked before use and the bulb should be lubricated. It should be given several sharp, downward shakes with the finger to release the air through the constriction into the bulb.

The normal temperature is 98.6° F. by mouth and about 1 degree higher by rectum. By armpit it averages 97.6° F. There are different kinds of thermometers. An oral thermometer has a long thin bulb in the blunt bulb of a rectal thermometer. The thermometer should always be checked before use and the bulb should be lubricated. It should be given several sharp, downward shakes with the finger to release the air through the constriction into the bulb.

APPENDIX B

Counting the Human Pulse

In normal everyday activities, the pulse may go up with fever and illness or may drop with anesthesia or shock. Therefore, a first aider should know how to take a pulse.

For infants and children, the pulse rate ranges from 80-180 beats per minute. For adults, the pulse rate is 60-80. It is usually somewhat higher for women than it is for men. The pulse is taken at the wrist joint. Two or more fingers should be placed over the pulse area. The person should place his thumb over the victim's pulse because he may be feeling his own pulse.
**APPENDIX C**

Determining the Rate of Respiration

The respiratory rate also varies with one's daily activities. However, it may go up of fever or severe hemorrhage, or may even stop, as in asphyxia. For this reason, the f how to take respirations.

The normal respiration rate for adults is about 18-20 breaths per minute and for chi 40-45 breaths per minute. Respirations are counted by observing the number of times the in 1 minute. Each respiration consists of a complete breathing cycle consisting of one r one fall (expiration) of the chest wall. The measuring of respirations can be done h arm across his chest and feeling for the elevation of his chest each time he breathes.

**APPENDIX D**

Bandages

Some injuries require support or need to have dressings held in place. Therefore, a know how to make and use various bandages.

The bandages most frequently used are the triangular (sometimes folded to form a cr (gauze, elastic, or muslin). The triangular is made from a 40-inch piece of old sheeting should be a part of the first aid kit. It can be used for slings or to hold dressings in Red Cross Manual describes many ways to use it. Folded as a cravat (or using any improv can be used to control hemorrhage, hold dressings in place, or tie items together.

Roller bandages come in different materials and different sizes (from 12-inch to 40- sterile) it can be used as both a dressing and bandage. As elastic it can be used as su types of rolled bandages are circular, recurrent, figure eight, and spiral. A descriptio appears in the American Red Cross First Aid Manual.
APPENDIX C

Determining the Rate of Respiration

Respiration rate also varies with one's daily activities. However, it may go up, as in the presence of hemorrhage, or may even stop, as in asphyxia. For this reason, the first aider must know how to count respiration rate for adults is about 18-20 breaths per minute and for children it is about 20-24 breaths per minute. Respirations are counted by observing the number of times the chest rises and falls. A complete cycle of respiration consists of a complete breathing cycle consisting of one rise (inspiration) and one fall (expiration) of the chest wall. The measuring of respirations can be done by holding the victim's st and feeling for the elevation of his chest each time he breathes.

APPENDIX D

Bandages

Most frequently used are the triangular (sometimes folded to form a cravat) and the roller bandages. The triangular is made from a 40-inch piece of old sheeting or muslin and the roller bandage is made from a 12-inch to 40-inch gauze bandage. Elastic bandages come in different materials and different sizes (from 12-inch to 40-inch). As gauze (if used as both a dressing and bandage. As elastic it can be used as support. The major types of bandages are circular, recurrent, figure eight, and spiral. A description of these also comes in various forms. The American Red Cross First Aid Manual describes many ways to use it. Folded as a cravat (or using any improvised item) the bandage can be used to control hemorrhage, hold dressings in place, or tie items together.
MULTIMEDIA RESOURCES
FIRST AID AND SURVIVAL EDUCATION
Grades 7, 8, 9

TEACHER REFERENCES

Books


MULTIMEDIA RESOURCES

FIRST AID AND SURVIVAL EDUCATION
Grades 7, 8, 9

TEACHER REFERENCES

These supplementary aids have not been evaluated. The list is appended for teacher convenience only and teachers in the field are requested to critically evaluate the materials and to forward their comments to the Curriculum Development Center.


27


Therapeutic uses of adhesive tape. 2nd ed. New Brunswick, New Jersey. Johnson and


The Merck manual of diagnosis and therapy. 11th ed. Rahway, New Jersey. Merck, Sharp and

Laboratories. c1966.


on Safety Education, N.E.A. *Schools and civil defense.* Washington, D.C. Office of Civil Defense, M.D.


tic injuries: prevention, diagnosis and management. 5th ed. Philadelphia. Lea and


Periodicals


Friedman, AP. "How to prevent tension headache." *Consultant.* January 1967. p. 16.


---

**STUDENT REFERENCES**

**Books**


STUDENT REFERENCES


**Films**

Danger: handle with care. Local Chapter of the American National Red Cross. 22 min. black & white. Film deals with the preparation and use of hot and cold applications.

Image in the mirror. Local Chapter of the American National Red Cross. 27 min. black & white. With the correct body mechanics and good posture for the nurse and patient.

One minute to three. Local Chapter of the American National Red Cross. 26 min. black & white. With the role of the home nurse in maintaining health, observing symptoms of illness, and nursing care.

Passport to tomorrow. Local Chapter of the American National Red Cross. 28 min. black & white. With modern medicines and supplies, and how to give medicines according to the doctor's prescription.

Prairie schooner, space age model. Local Chapter of the American National Red Cross. 22 min. black & white. Film deals with the role of the home nurse in helping to prevent the spread of disease, and grooming of the bed patient.

The road back. Local Chapter of the American National Red Cross. 23 min. black & white. The rehabilitation of the sick and injured.

Target: babies and children. Local Chapter of the American National Red Cross. 30 min. black & white. Film deals with the role of the home nurse in the treatment of infants and children.

**Filmstrips**


are. Local Chapter of the American National Red Cross. 22 min. black & white. The preparation and use of hot and cold applications.

Local Chapter of the American National Red Cross. 27 min. black & white. Film deals y mechanics and good posture for the nurse and patient.

Local Chapter of the American National Red Cross. 26 min. black & white. Film deals home nurse in maintaining health, observing symptoms of illness, and giving simple

Local Chapter of the American National Red Cross. 28 min. black & white. Film deals s and supplies, and how to give medicines according to the doctor's orders.

age model. Local Chapter of the American National Red Cross. 22 min. black & white. role of the home nurse in helping to prevent the spread of disease, bed-making, and the patient.

Chapter of the American National Red Cross. 23 min. black & white. Film deals with f the sick and injured.

ldren. Local Chapter of the American National Red Cross. 30 min. black & white. role of the home nurse in the treatment of infants and children.

Additional filmstrips are available in the teaching kits made available by the United States Department of Defense in conjunction with the United States Department of Health, Education and Welfare, Materials Laboratories, Inc. of New York. These kits are described below.

Teaching Kits

The United States Department of Defense, in conjunction with the United States Department of Health, Education and Welfare, has prepared a Medical Self-Help Instructor's Kit. This kit consists of containing all the necessary materials in basic health survival principles. The kit consists of: a guide; a course introduction; eleven lesson play books, the reference manual Family care; eleven 35 mm. filmstrips; and examination booklets and grading templates. The kit would be valuable in first aid instruction for grades 7, 8, and 9 would include: Bandaging and Nursing Care of the Sick and Injured. There is also a set of eleven 16 mm. available, one for each lesson. In addition, there is a 13½ minute color film narrated "If Disaster Strikes," which explains the program and shows the value of Medical Self-Help Training Kits. It is available at the New York State Department of Health or the New York State Civil Defense Commission.

The Instructional Materials Laboratories, Inc., located at 18 East 41 Street, New York City, is available a programmed instructional School First Aid Course that was developed by the New York State Department of Health. Each classroom unit kit contains 30 student programmed text manuals; 1 classroom demonstration first aid products; 1 full color filmstrip with complete teacher script and test questions; programmed text guide; 30 progress test booklets; 30 safety checklists for home preparation; completion cards; and 2 achievement certificates. The cost for this kit is approximately $4.00.

Flip Charts

Flip Chart for the Self-Help and Neighbor Help for the Injured Course. A 102-page, 17½ by 17½ chart in color which is used as a teaching aid for the Self-Help course. It is bound be used as a stand on a desk or a table. It is available in English and Spanish. It was prepared 1963 by the New York State Department of Health for the New York State Civil Defense Commission. For information write: The New York State Department of Health, 84 Holland Avenue, Albany, N.Y.

Flip Chart for the Training Course for Medical Aides in Aid Stations. A 100-page, 17½ by 17½ chart in color which is used with the text Guide for medical aids in aid stations. It covers which can be used as a stand on a desk or a table. This chart was prepared 1964 by the New York State Department of Health for the New York State Civil Defense Commission. For information write: The New York State Department of Health, 84 Holland Avenue, Albany, N.Y.
are available in the teaching kits made available by the United States Department of
Education in conjunction with the United States Department of Health, Education and Welfare and the Instructional
Materials Laboratories, Inc. of New York. These kits are described below.

The Department of Defense, in conjunction with the United States Department of Health, Education and Welfare, prepared a Medical Self-Help Instructor's Kit. This kit consists of a cardboard suitcase containing necessary materials in basic health survival principles. The kit contains an instructor's manual, eleven lesson play books, the reference manual on Family guide-emergency health items, filmstrips; and examination booklets and grading templates. The filmstrips and lessons are developed for first aid instruction for grades 7, 8, and 9 and are available in five versions: care of the Sick and Injured. There is also a set of eleven 16 mm. color sound films for each lesson. In addition, there is a 13½ minute color film narrated by Danny Thomas, "Family Guide - Emergency Health," which explains the program and shows the value of Medical Self-Help Training. The kit should be contacted for more information.

Materials Laboratories, Inc., located at 18 East 41 Street, New York, N.Y. 10017, has developed an instructional School First Aid Course that was developed by Johnson and Johnson. The kit contains 30 student programmed text manuals; 1 classroom demonstration kit of 1 full color filmstrip with complete teacher script and test questions; 1 teacher's manual; 30 progress test booklets; 30 safety checklists for home preparedness; 30 course guides; and 2 achievement certificates. The cost for this kit is approximately $12.00. Adjunct classes larger than 30) containing materials for 10 students are available for $9.00.

Self-Help and Neighbor Help for the Injured Course. A 102-page, 18¾-inch x 28½-inch chart is used as a teaching aid for the Self-Help course. It is bound in covers which can be used as a stand on a desk or a table. It is available in English and Spanish. It was prepared by the New York State Department of Health for the New York State Civil Defense Commission. For information: The New York State Department of Health, 84 Holland Avenue, Albany, New York 12208.

Training Course for Medical Aides in Aid Stations. A 100-page, 18¾-inch x 28½-inch chart is used with the text Guide for Medical Aides in Aid Stations. It is bound in covers and is used as a teaching aid in the New York State Department of Health for the New York State Civil Defense Commission. For information: The New York State Department of Health, 84 Holland Avenue, Albany, New York 12208.
Mannequins

Resusci-Anne and Resusci-Andy. These are life-size mannequins that are used in resuscitation training, however, they can be used in other phases of first aid. They are available from the G. E. Equipment Company, 37 East 21st Street, Linden, New Jersey 07037, or the Laerdal Medical Company, 136 Marbledale Road, Tuckahoe, New York 10707. The approximate cost of a mannequin is $150.00.


Injury Simulation Kits

Injury simulations kits containing make up that can be used to simulate injuries are available from Simulaids, Woodstock, New York 12498, and the Alderson Research Laboratories, Inc., 729 Canal Street, Stamford, Connecticut. Many different kinds of kits are available. Kits range in price from $250.00.
These are life-size mannequins that are used in resuscitation training; be used in other phases of first aid. They are available from the Guardian Safety, 37 East 21st Street, Linden, New Jersey 07037, or the Laerdal Medical Corporation, Tuckahoe, New York 10707. The approximate cost of a mannequin is $198.00.

A full-bodied mannequin for use in resuscitation training. Available from Alderson Research, 729 Canal Street, Stamford, Connecticut. The approximate cost is $198.00.

A full-bodied mannequin of a child for use in resuscitation training. Available from New York 12498. The approximate cost is $22.50.

Kits containing makeup that can be used to simulate injuries are available from New York 12498, and the Alderson Research Laboratories, Inc., 729 Canal Street, Connecticut. Many different kinds of kits are available. Kits range in price from $20.00 to