

THE HEALTH AND FIRST AID PROJECT

Boys' and Girls' 4-H Club Circular 15

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Radiant Health



**COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS**

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED
STATES DEPARTMENT OF AGRICULTURE COOPERATING

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Health and First Aid Clubs*

REQUIREMENTS

There shall be five or more members in the Health and First Aid Club who are 10 to 21 years of age and who are meeting regularly, with their own officers in charge, under the direction of a local club leader.

Object.—The object of the first aid clubs is to promote health by emphasizing the daily practice of health habits by each member, by teaching the necessary precautions for avoiding accidents and injuries, and emergency care of these when they occur; and through the club group to develop an interest in community health problems.

Work Required.—Each club member is required to learn the health rules, to practice the health habits, and to understand why they are essential to life, and to take training in the necessary precautions to avoid accidents and injuries and for caring for the still common emergencies as follows:

- (1) To learn how to make and use bandages: a. When the skin is not broken, as in bruises, sprains, dislocations, fractures, etc.
b. When the skin is pierced or broken. How to care for wounds, how to stop bleeding, etc.
- (2) To learn how to care for common emergencies: a. Fainting; b. nose bleed; c. nausea; d. vomiting; e. burns; f. chills; g. sunstroke; h. drowning.
- (3) To provide a few bandages and a properly equipped medicine chest to have on hand in the home.

Records Required.—Members will be required to keep records of their practice of health habits; the emergencies in which they have assisted; the construction, contents, and use of their medicine cabinets; and a record of the meetings, demonstrations and exhibits held, in a record book provided by the Extension Service of the Missouri College of Agriculture.

Expense.—The expense of a club member is small, as each is required to furnish only those supplies which are not already in the home, such as gauze, bandage, cotton, adhesive plaster, etc.

Time Required.—Time necessary for practice of health habits and bandaging and for preparation of a medicine chest.

For attendance at six or more club meetings.

*Prepared by Miss Mary E. Stebbins, Extension Specialist in Health, in collaboration with Miss Jane Hinote, Assistant State Club Agent.

For attendance at an achievement exercise at the close of the year's work.

Organization.—These clubs should be organized in March, April, or May for summer club work, and in September, October, or November for Winter club work.

SUGGESTED PROGRAMS FOR HEALTH AND FIRST AID CLUB MEETINGS

Standard clubs are required to hold at least six regular meetings during the club year. These meetings may be held as often as the local club leader and the members desire, however, it is recommended that at least one meeting be held each month.

Club members should demonstrate practical phases of the work at each club meeting.

It may be necessary to devote more than one meeting to some of the suggested subjects.

I. First Club Meeting.—*Organization of the Club.*—Reference: Club Secretary's Record Book, Page 3.

1. The business meeting.—The local club leader in charge.
 - (1) The election of club officers from the membership of the club; President, Vice-President, Secretary, Song and Yell Leader, and Club Reporter.
 - (2) Selection of a name for the club. (It is suggested that the name be selected so as to identify the club and the project.)
 - (3) Selection of time and place for regular club meetings.
 - (4) Setting the club goal.
 - (5) Appointment of a committee to work up or select an appropriate song or yell for the club.
 - (6) Assignment of the 4-H club pledge to be learned by all members before the next meeting.
 - (7) Adjournment of the business meeting for instruction in club work.
2. Instructions.—The local club leader in charge.
 - (1) Explanation of the duties of the club officers and members. Reference: The Club Secretary's Record Book, Page 4.
 - (2) Distribution of club literature and the record books and explanation of their use.
 - (3) Explanation of standard 4-H club requirements.
 - (4) Explanation of the club project requirements for health and first aid work.
 - (5) Discussion of the main club events for the year.
 - (6) Stating specifically what each member must do to start the home project work. Weighing and measuring of club members.
 - (7) Assignment of work for the next meeting, including the bringing of record books to the meeting, and the report of the health examination made by physician. Assignment for roll call; "Give your correct weight and state the percentage over or under weight."

II. Second Club Meeting

1. The business meeting.—The club president in charge. Reference: Duties of club officers in Club Secretary's Record Book, Page 4.

- (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge as follows: "As a true club member, I pledge my *head* to clearer thinking, my *heart* to greater loyalty, my *hands* to larger service, and my *health* to better living—for my club, my community, and my country."
- (2) Roll call by the secretary, the members responding by giving a report on a previously assigned topic.
- (3) Reading of the minutes of the last meeting by the secretary, which should be adopted as a permanent record by the club when approved.
- (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Report of the committee on club and health songs and yells.
- (5) New business:
 - a. Appointment of a social committee to plan for some games at future club meetings.
 - b. Anything for the good of the club.
- (6) Songs and yells, led by the song and yell leader.
- (7) Adjournment for work.

2. Instructions and demonstrations.—The local club leader in charge.

- (1) Health rule No. 1, page 13.
- (2) Use of triangular bandages for the head, eye, jaw, chest, shoulder, hand, foot, elbow, knee, arm, and as a sling, page 15.
- (3) Explanation of how to keep the record book.
- (4) Assignment of work for the next meeting, including the bringing of record books to the meeting, and assigning a progress report on the home project work for roll call.

III. Third Club Meeting

1. The business meeting.—The club president in charge.

- (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
- (2) Roll call by the secretary, the members responding by giving a progress report on their home project work and by handing in the record books for use in the club meeting.
- (3) Reading of the minutes of the last meeting by the secretary.
- (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Report of the social committee.
- (5) New business:
 - a. Appointment of committees.
 - b. Anything for the good of the club.
- (6) Songs and yells.
- (7) Adjournment for work.

2. Instructions and demonstrations.—The local club leader in charge.

- (1) Health rules 2, 3, and 4, page 17.
- (2) Use of roller and four-tailed bandages for the-head, finger, wrist, and arm—Page 19.

- (3) Assignment for work for the next meeting, including the bringing of record books to the meeting, and assigning health rules 2, 3, and 4 for roll call.

IV. Fourth Club Meeting

- 1. The business meeting—The club president in charge.
 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by reporting on a previously assigned topic, and by handing in the club record books for use in the club meeting.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Unfinished business:
 - a. Report of social committee.
 - (5) New business:
 - a.
 - (6) Songs and yells.
 - (7) Adjournment for work.
- 2. Instructions and demonstrations.—The local club leader in charge.
 - (1) Health rules 5 and 6—Page 21.
 - (2) Care of bruises, sprains, dislocations, and fractures, Page 21.
 - (3) An examination of all record books.
 - (4) Assignment of work for the next meeting, including the bringing of record books to the meeting, and roll call assignment for each member to name one use of triangular bandages.
 - (5) Social hour; games, refreshments, etc.

V. Fifth Club Meeting

- 1. The business meeting.—The club president in charge.
 - (1) Meeting called to order, members repeating the 4-H club pledge.
 - (2) Roll call, members responding by reporting on a previously assigned topic, and by handing in the club record books for use in the club meeting.
 - (3) Unfinished business:
 - a.
 - b.
 - (4) New business:
 - a.
 - b.
 - (5) Songs and yells.
 - (6) Adjournment for work.
- 2. Instructions and demonstrations.—The local club leader in charge.
 - (1) Health rule No. 7, page 26.
 - (2) Care of wounds, page 26.
 - (3) How to stop bleeding, page 27.
 - (4) An examination of all record books.
 - (5) Assignment of work for the next meeting, including the bringing of record books to the meeting, the assigning health rules 5, 6, and 7 for roll call.

VI. Sixth Club Meeting

1. The business meeting.—the club president in charge.
 - (1) Meeting called to order, members repeating the 4-H club pledge.
 - (2) Roll call, members responding by reporting on a previously assigned topic, and by handing in the record books for use in the club meeting.
 - (3) Unfinished business:
 - a.
 - (4) New business:
 - a.
 - (5) Songs and yells.
 - (6) Adjournment for work.
2. Instructions and demonstrations.—The local club leader in charge.
 - (1) Health rule No. 8, page 28.
 - (2) Use of the medicine chest in the home and for common emergencies, page 28.
 - (3) An examination of all record books.
 - (4) Assignment of work for the next meeting, including the bringing of record books, and assigning for roll call, the naming of four things that the home medicine chest should contain.

VII. Seventh Club Meeting

1. The business meeting—The club president in charge.
 - (1) Meeting called to order, members repeating the 4-H club pledge.
 - (2) Roll call, members responding by reporting on a previously assigned topic, and by handing in the record books for use in the club meeting.
 - (3) Unfinished business:
 - a.
 - (4) New business:
 - a.
 - (5) Songs and yells.
 - (6) Adjournment for work.
2. Instructions and demonstrations.—the local club leader in charge.
 - (1) Health rule No. 9, page 28.
 - (2) Artificial respiration, carrying the injured, emergency treatment for sunstroke, page 28.
 - (3) Making a study of the record books.
 - (4) Assignment of work for the next meeting, including the bringing of record books, and each member coming prepared to give an individual demonstration of some practical work that he or she has learned in health and first aid club work.

VIII. Eighth Club Meeting

1. The business meeting.—The club president in charge.
 - (1) Meeting called to order, members repeating the 4-H club pledge.
 - (2) Roll call, members responding by reporting on a previously assigned topic and by handing in the record books for use in the club meeting.
 - (3) Unfinished business:
 - a.
 - (4) New business:

- a. Appointment of a committee to help plan for the Achievement Day exercises.
 - (5) Songs and yells.
 - (6) Adjournment for work.
- 2. Instruction and demonstrations.—The local club leader in charge.
 - (1) Tryouts for the demonstration team by individual club members, page 33.
 - (2) Selection of the demonstration team to represent the club.
 - (3) Final instructions on completion of the club record books for the year
 - (4) Final instructions on the club achievement day exercise.
 - (5) Instructions to the club reporter on news items for the local papers regarding the achievement day program and the work of the club for the year.

IX. Ninth Club Meeting.—The Achievement Exercise

The achievement exercise should be held at the close of the work for the club year.

Each club member should hand in to the local club leader the completed record book so that the results of all the work of the club may be summarized for the year in the Club Secretary's Record Book.

Each club member should exhibit the medicine chest which he or she provided for use in their own homes.

Suggested Public Achievement Program

1. A typical club meeting by the club.
2. A brief history and a short statement of the club's achievements by the club member or by the local club leader.
3. One or more practical health and first aid demonstrations by club teams.
4. A talk on 4-H club work.
5. Awarding 4-H achievement buttons, if given, to each member of the club who hands in a complete record book to the local club leader.
6. Announcement of club plans for the coming year.
7. Adjournment.

Suggestions

Only club members who make a complete report or have their records up-to-date should be eligible to take part in county or state contests.

The events of the club achievement exercise and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

SUGGESTIONS FOR LEADERS OF HEALTH AND FIRST AID CLUBS

A foundation of early health habits is of untold value to every boy and girl and will help them to live happy and useful lives.

Our habits may give us either health, strength and happiness or sickness and inefficiency.

A practice becomes a habit when it has been done so often that it is automatic and will be done without special thought or a definite re-

minder. Keeping a daily record will help make these health habits become automatic. This self training is very useful. No one can realize too emphatically the sacredness of the body, "the temple of the soul." For the various organs to work properly, one must stand, walk, and sit correctly, breathe deeply, have pure air night and day, winter and summer; the right food in the right amount at regular intervals; quiet and long sleep at night; and should gain regularly in weight until full growth has been attained.

To add to the interest in growth and development, a record of the weight of each boy and girl is to be made at each club meeting. This will help each to know his or her own gain. A height and weight card is enclosed showing the average weight for height for boys and girls of various ages. Comparison with this card will permit each member to know just how he or she compares with the average and what gain is being made.

The personal record is to be kept a part of each month so that good health habits will be formed.

"We learn to do by doing."

The habit of finishing a job, not quitting, is another good habit to form. This personal record should be carried through the full number of months as indicated.

The Health Examination

In every business it is necessary to take an inventory at regular intervals to know whether the business is living or dying.

The business of living also demands the taking of an inventory at regular intervals, this inventory being the health examination, which should be made by a physician at least once a year. Members of the health club should have such an examination made. This will help them to know their own defects and give them an opportunity to have such defects corrected. It will also let them know their good points and will give them a basis for watching their own improvement. It is a good plan to have this examination made by the family physician.

Once a year, at the State Fair, there will be a State Health Contest for 4-H club boys and girls of Missouri. There will be educational trips given as awards for the boy and girl most nearly up to standard.

The boys and girls who have been trying to bring themselves up to the best possible condition of health will naturally stand the best chance of winning. It is advisable to have the health examination made at the beginning of the club work; this will afford the members time to achieve the desirable results.

The leader of the club can often interest some physician in the club and its plans sufficiently so that he is willing to give enough of his time to examine the club members free of charge. It adds to the interest if the members can accompany the leader to his office in a group.

Health examination should include test of vision, and hearing, examination of teeth, throat, nose, heart, lungs, skin, feet, etc. Posture should be noted and condition of scalp.

The height and weight of each club member will have been taken and recorded at the club meeting. Each member should take his or her record when going to the doctor for the health examination. Each member will be weighed and measured and the per cent of underweight or overweight will be figured and recorded. Remember that the boy or girl who is 10% underweight is not developing the strong, useful, body he or she needs to serve all through life. The gain for each month can be figured also.

Each question on page 10 of the Record Book may be discussed briefly and the boys and girls should consider their own qualifications.

Promotion of Health

"Practice Makes Perfect."

"My body is the Temple of my soul. Therefore:

I will keep my body clean within and without;

I will breathe pure air and I will live in the sunlight;

I will do no act that might endanger the health of others;

I will try to learn and practice the rules of healthy living;

I will work and rest and play at the right time in the right way;

So that my mind will be strong and my body healthy;

And so that I will lead a useful life and be an honor to my parents and to my country."

The above is a state health motto, but it is also a fine one for boys' and girls' 4-H club members.

The Health and First Aid Club will suggest much that can be done to make the body strong and useful and beautiful, especially by the practice of such daily habits of living as will improve health and increase vitality.

What is Health?

The dictionary defines health as, "safe and sound, hale, hearty, whole in mind, body and soul."

What Boys Admire

"Every boy admires and covets for himself courage, physical endurance, and skill in athletics. Since these are based upon all-around

physical development, on the well-being of nerve, muscle, bone and sinew, it is the sensible and manly thing for the boy to take an interest in the habits that keep his body clean, a smoothly working machine responsive to his will; in the foods that build his body and in those that harm it; in the proper proportion of rest and exercise in his daily life; in all of the few simple but essential fundamentals of health."

What Girls Admire

"Every normal girl admires beauty, every normal girl has the right as well as the desire to be good looking; that is, to be healthy, vigorous and full to overflowing with the sheer joy of living. She covets the bright eyes, rosy cheeks, smooth skin, and glossy hair that nature intended every girl to have; the free, lithe body with strength and grace in every movement; and the vitality, energy, enthusiasm and ambition that win and keep friends. All of these depend upon health. Since health depends upon a few simple habits of right living, any girl who has the right "stuff" in her will be eager to study herself. She will be anxious to learn how to bring about the changes in health habits that are necessary to make her dream come true."

Health Rules

1. Brush teeth each morning and night.
2. Wash the hands before eating.
3. Take a full bath at least twice a week.
4. Have a natural bowel movement daily.
5. Drink at least six glasses of water each day.
6. Eat some fruit and green vegetables each day.
7. Drink milk, one quart a day is desirable.
8. Play or exercise out doors each day.
9. Sleep long hours in the open air or with open windows:

Boys and girls 10-12 years old need 12 hours sleep.

Boys and girls 12-14 years old need 11 hours sleep.

Boys and girls 14-18 years old need 10 hours sleep.

Additional Suggestions

1. If possible, have a thorough physical examination by a physician.
2. Correct physical defects, if any are found.
3. Eat meals at regular hours.
4. Chew thoroughly.
5. Eat no sweets between meals.
6. Wear low-heeled, comfortable shoes.
7. Stand and walk properly—chest up, chin in, abdomen in.

Doubtless every boy and girl knows these health rules. Knowing them will not bring about that bouyant health each boy and girl desires.

It is necessary to practice all these rules each day. For a time it may be necessary to make a conscious effort to remember to do these things. Daily repetition will reduce the effort required, and gradually these practices will become so much a part of the daily life that they will truly become health habits.

Do you know how many of these rules you apply every day in your daily living? Very few people do unless they keep a record for a time. After these good habits become automatic it will no longer be necessary to keep a record.

Health Records

Members of the Health and First Aid Club should start the record of their health practices at the first club meeting. The club leader will show the members how the record book is to be kept. Then the members can mark their records for the day. This will help the members to know which habits they already have. This daily record is to be kept each day for the first month and the last two weeks of the second month. After that it is to be kept the last week of each month.

Members will want to know their own weight and the average weight for height and age as well as the rate of gain. This can be found out by making a comparison of own weight with the average weight as found on the leaders' height and weight chart.

"Look to your health, and if you have it, praise God and value it next to a good conscience."

Prevention of Accidents

"Look Before you Leap."

Oft repeated sayings after accidents are: "If I had done thus and so," "If I hadn't done thus and so," "If I had looked" "I might have known," "I didn't think," and so many similar expressions all pointing to the fact that accidents are practically always humanly avoidable.

Consideration of ways to avoid or prevent accidents is of more importance and interest than a knowledge of how to care for an accident. The habit of caution should be added to the other health habits which are to become automatic to the members of the Health and First Aid Club.

Over 90% of the accidents in the United States occur in the homes.

Some of the things to be remembered are:

1. Sufficient light is a great safeguard at all times and in all places.
2. Heed danger signals and signs.
3. A banana skin removed from the walk may prevent a broken bone.

4. Removing ice from porches, steps, paths, and walks, or sprinkling ashes, salt, or sawdust, may save a life, concussion of the brain or broken bones.
5. Testing the ice on a pond with some heavy weight before skating on it may prevent a death. Thin ice should be indicated by placing a danger sign.
6. Learning to swim will prevent drowning. Every person should know how to swim.
7. Sitting quietly in a boat will not upset it.
8. Putting out campfires will preserve many homes and lives and much property.
9. Starting a fire in a stove with kindling wood will not cause explosions and burns. Kerosene oil and gasoline used for starting fires have caused many serious burns and deaths and have destroyed many homes.
10. Opening tin cans with a good can opener is a safe way. Knives and other substitute implements frequently slip, resulting in cuts and scratches.
11. Protect against steam when removing a cover from a boiling kettle.
12. The head of a mule or horse never kicks. Watch his heels.
13. Keep a safe distance away from running machinery.
14. Look to the right and left before crossing a road or street.
15. Drive your own car carefully. You can't know what the "other fellow" will do.
16. Dim your lights when about to meet another car and slow down at crossroads, railroads, curves, and corners.
17. Lighted matches or cigarettes combined with gasoline produce disastrous results.

"A wise man is cautious in all things."

II. HEALTH RULE NO. 1.—USE OF TRIANGULAR BANDAGES

Health Rule No. 1.—Brush Teeth Each Morning and Night.

"There was an old man with a tooth,
That ached 'till he said, 'Tis the truth
I neglected them young,
And now I am stung,
How I wish I had brushed them in youth."

The first teeth are usually erupted when one is six to eight months old, the last teeth when one is 19 to 20 years old. With proper care, teeth should remain sound as long as one lives.

Proper care includes daily cleansing, periodical inspection by a dentist, and eating tooth building foods. Read "Milk for Sound Teeth."

The teeth cut and grind the food, help us to talk and they give form to the face.

The enamel, which covers the crowns of the teeth, is a hard, white shining substance, very brittle and easily polished. The thickness and strength of the enamel depends upon the foods eaten. Milk, leafy vegetables, fruit and whole grains are foods that build teeth.



Fig. 2.—Tooth Brush Drill.

The enamel is easily injured by biting or cracking hard substances as hard-shelled nuts. A crack in the enamel leads to decay and pain and means loss of the tooth unless properly cared for.

Clean teeth are very attractive and necessary to health. Why are clean teeth necessary to health? Only clean food should be swallowed. If the teeth are unclean, the food chewed is unclean; unclean food will be swallowed and the poisons absorbed into the system. Food left on the teeth presses on the gums causing them to be pushed back; this may result in decay or other injury to the neck of the tooth and permit the entrance of bacteria, the origin of abscesses, and gum diseases.

Diseased teeth and gums make the breath foul and lead to more serious results.

Salt is one of the best things for cleaning teeth. The tooth brush should be small with the bristles set far apart and not too stiff; after using, it should be washed with clear water, the water shaken out and the brush dried, if possible in the sun. Keep the tooth brush out of the dust and avoid letting it touch any other brush.

Song

(Tune—*Tramp, Tramp, Tramp the Boys are Marching*. From *The Child's Book of the Teeth*.)

“Scrub! Scrub! Scrub! are the words of warning,
Keep all grinders shining bright.
Use your powder, brush, and paste,
There's no time to lose or waste,
Keep them clean by brushing,
Morning, Noon, and Night.”

“Eat whole wheat and eat whole oats,
Keep on chewing hard and right,
Build your teeth up strong and fine,
There's no time to waste or pine,
Eat the right food always,
Morning, Noon, and Night.”

Use of Triangular Bandages

Kinds of Bandages.—1. Triangle. 2. Roller. 3. Four-tailed bandage.

Use of Bandages.—1. To keep dressing in place. 2. To hold splints in place. 3. To stop bleeding. 4. As slings.

Triangular Bandages.—Triangular Bandages are easily made, not difficult to apply as a temporary dressing, and will not cause injury by stopping the circulation. They are commonly made from unbleached muslin, 34 to 38 inches square, folded diagonally, and cut across fold. May be used folded or unfolded. Unfolded—used as a triangular or sling. Folded lengthwise to width desired. To fasten—tie the ends or use a safety pin.

Uses of Triangular Bandages.—*Head bandage.*—(a) For forehead or top of head. Place bandage over the top of the head the long side level with the eyebrows, point hanging down in the back; bring ends of long side to back of neck, tie, turn point up over knot, tuck in all ends and edges.

(b) For back of head. Reverse, placing long side low on neck and point between eyebrows.

Eye bandage.—Place the center of folded triangular bandage over the injured eye, bring the ends to the back of the head and tie. A length cut from a roller bandage may be used in the same way.

Jaw bandage.—Fold two triangular bandages into scarfs, by folding point toward long side; double over once or twice more until scarf is two or three inches wide.

Place one bandage across chin even with lower lip; tie ends at back of neck. Place second bandage under chin, catching edge of first bandage; tie ends of second bandage over top of head. Tuck in all ends.

Chest and shoulder bandage.—Triangular unfolded is used. The long side is placed horizontally across the chest. The upper end is brought over the shoulder and the ends tied in back.

Hand bandage.—The triangular bandage is spread out. The hand is placed on it palm down with the fingers toward the point. The point is then brought over the back of the hand to the back of the wrist and the two ends are crossed over the wrist and tied.

Bandage for palm of hand.—Use a folded triangle. Place the center of this on the palm of the hand. Cross the ends at the back of the hand and again in the front of the wrist and tie at the back of the wrist.

Foot bandage.—(a) For toes only—Place toes toward point. Fold point back over toes, cross ends of long side over top of foot, carry under foot, cross, bring back to top of foot and tie. Tuck in ends.

(b) For heel—Place long side of bandage under middle of foot, bring point up at back of heel; cross ends of long side on top of foot, carry to back of leg above heel, cross, bring back to front of leg, tie. Turn point down and fasten; or point may be turned down inside bandage before bandage is applied. Tuck in all ends.

(c) For whole foot, place toes toward point, long side at back of leg above heel, turn point back over toes; bring ends of long side around ankle, cross bandage over top of foot; carry back around the ankle, cross at back, bring to front of leg, tie ends in front. Tuck in all ends.

Elbow bandage.—Fold bandage into scarf as described under jaw bandage, making scarf as wide as necessary. Place middle of bandage over elbow, bring ends to front, cross, carry back around arm above elbow, cross, bring back to front and tie. Tuck in all ends.

Knee bandage.—Same as elbow placing middle of bandage over knee.

Arm bandage.—Fold bandage into scarf as described under jaw bandage. Place middle of bandage over part to be protected, carry up opposite side, cross, bring back, cross and tie on side of arm opposite wound. Several bandages may be used if necessary.

Sling for the arm.—For a sling, a square yard of strong material should be used. Fold across to make triangle. Place one end of triangle over the shoulder of uninjured side. Allow length of bandage to hang down in front of chest so that the point of triangle will be behind the elbow of the injured arm. Bind the elbow of the injured arm at right angles. This will bring the forearm across the middle of triangle. Then carry the lower end of the bandage over the shoulder of the injured side

and tie to the upper end behind the neck. Bring the point of the bandage to the elbow forward to the front and pin there so that the bandage is snug but does not pull. This makes an excellent arm sling but even without a bandage a good sling can be made—for the arm—by pinning the sleeve or skirt of the coat to the front of the coat. A woman's skirt can be used in the same way.

III. HEALTH RULES NO 2, 3, AND 4.—USE OF ROLLER AND FOUR-TAILED BANDAGES

Health Rule No. 2

Wash the Hands Before Eating

Whether or not the hands look clean, they should always be washed just before eating.

Disease germs live a "hand to mouth" existence. Nearly all diseases are carried from one person to another by transfer of that disease by way of the hands to the nose or mouth.

Unseen contamination on the hands will be transferred into the mouth by the food the hands touch in eating.

Colds, measles, whooping cough, and many other poisons enter the body this way.

Avoid wetting a finger to turn a page. Pencils and other articles should be kept out of the mouth.

Seal an envelope and moisten a stamp by using a sponge or a drop of clean water.

"Water and soap, water and soap,
Bring us health and bring us hope."

Health Rule No. 3.—Cleanliness Outside

Take a Full Bath at Least Twice a Week

"Cleanliness is akin to Godliness," "Clean up and keep it up." Cleanliness promotes self respect, clean thinking, clean living and clean acting.

The skin is the protective covering of the whole body. Finger nails and toe nails are part of the skin and should be cleaned frequently.

The skin throws off or eliminates waste substances from the body. This process is continuous in winter and in summer. These waste substances must be frequently removed from the surface of the body in order to keep the pores clear and able to function. A clean body will have no odors and will need no perfume.

Clean skin will be smooth, clear, fresh and attractive.

Clean skin should be covered with clean clothing.

Every home should have some definite place set aside for bathing, which provides privacy at all times, which is convenient to the water supply and for disposing of the water after use, and which can be conveniently heated in cold weather. A small portable oil stove will usually provide sufficient heat in the absence of a regular heating plant.

It is possible to arrange such a bathing place in practically every home at a very little expense of time or money and such bathing place can be quite satisfactorily used until such time as a regularly fitted bathroom can be installed. Often part of a porch or a large closet can be arranged for this purpose.

A rubber tube with bulb and spray which operates on the siphon plan can be purchased for about \$1.25. Add to this a pail of water and tub or other receptacle for catching the used water and a complete bath is provided. Another device can be made by soldering a shower bath spray nozzle into an ordinary pail. A watering can can be used. Tie a rope to the handle of the pail and pass the rope through a pulley in the ceiling; the pail may be adjusted at the desired height by winding the rope around a hook or a nail in the side wall. One teakettleful of boiling water cooled to the proper temperature will provide water for three or four such baths using either of the above devices.

A drain through the floor and leading away from the building for a sufficient distance, can be installed for a money expenditure of about the cost of the materials only, as either the men or the boys at the home can do the work themselves. Such a drain proves a great convenience as no water has to be carried away after the bath.

“All endearing cleanliness,
Virtue next to Godliness,
Easiest, cheapest, most needed duty,
To the body, health, and beauty,
Who that’s human would refuse it,
When a little water does it?”

—CHARLES AND MARY LAMB.

Health Rule No. 4.—Cleanliness Inside

Have a Natural Bowel Movement Daily

Cleanliness of the inside body is as important as cleanliness of the outside.

Ashes, the waste matter from burning coal or wood, must be removed from the stove at regular intervals, if the stove be kept in good working order. So the waste matter, left from the digestion of food and

drink, must be removed from the body at regular intervals if the body is to be kept in good working order. A regular time each day for emptying the bowels is an important health habit to acquire. Exercise, the drinking of plenty of water, the eating of an abundance of fruit, vegetables and whole grain cereals will usually help those who have difficulty in getting rid of the waste of the body each day.

Read "Daily Procedure For Treatment of Constipation." See General References, page 37.

Use of Roller and Four-Tailed Bandages

Roller bandages.—Roller bandages are made of muslin, flannel, or gauze. They may be improvised by tearing strips from sheets and rolling them up. Gauze or cheese cloth makes by far the best roller bandages. It is elastic so fits itself to the part of the body being bandaged and is not so apt to be pulled too tight on the edges, where it cuts off circulation, or to be so loose that it does not stay in place. Roller bandages are preferably used in following sizes: Finger, $\frac{3}{4}$ of an inch wide and 1 yard long; arm or head, $2\frac{1}{2}$ inches wide and 4 to 6 yards long; leg or thigh, 3 inches wide and 6 to 8 yards long; chest or abdomen, 4 to 5 inches wide and 8 to 12 yards long. The bandage $2\frac{1}{2}$ inches wide and 4 to 6 yards long is the most generally used.

The roller bandage is applied by holding the roll in the right hand and the loose end in the left and laying the outer side of the end on the place where it is desired to start the bandage. The simplest method of application is the circular but this can only be used when the part to be bandaged is of nearly the same circumference throughout. This is the case with the forearm above the wrist and with the fingers. In first aid work, the bandage is usually applied to hold splints or dressings in place. The circular method of application consists simply of a series of circular turns from below upward, each turn overlapping the upper third of the one below. When the part is larger at one end than the other, then begin to move up the limb, using the circular method as long as a turn overlaps the preceding one about one-third. As soon as the place is reached where the limb increases so much in size that the bandage does not lie flat, uncovered spaces will be left. To prevent these spaces, the reverse must be used. The reverse is generally considered to be the most difficult point to learn in the application of any bandage. To make the reverse, place the thumb of the left hand on the lower edge of the bandage to hold it in place. Slacken the bandage between the hands (about 3 inches) and turn the roller one-half over toward self. Pass the roller under the limb, keeping the lower edge of the bandage parallel with that of the turn below. Reverse against the proper point, and so on.

Reverse should be made so that they lie in one line up the limb. To fasten, turn the free end and pin in place.

Four-tailed bandages.—The four-tailed bandage is especially useful for fractures of the jaw and other injuries of the head. Preferably a piece of cloth 5 to 6 inches wide and from 2 to 3 feet long should be used. It is doubled on itself and torn from each end until a piece about 4 inches long is left undivided in the middle. This is a good jaw or head bandage.

All many tailed bandages. Four or more tails are made and applied in the same manner. Different sizes should be used for different parts of the body.

Nose bandage.—Four-tailed—Place center on nose, cross ends carrying lower ends upward and upper pair below the ears and tie both at the back of the head.

Jaw bandage.—For this, two folded strips are used. Apply the outer of the first across point of chin and tie behind. Place the second under the chin. Cross the ends over the top of the head, bring them down and tie under the chin.

Finger bandages.—Place middle of bandage under finger. Bring ends up over finger alternately, one side after another overlapping the edges about one-third of the width of each strip. Continue until all strips have been applied. Tie the last ends or fasten with a safety pin or adhesive plaster strip.

Wrist bandage.—Apply in the same manner using bandage of appropriate width.

Arm bandage.—Apply in the same manner using bandage of appropriate width.

Precautions.—Bandages must not be too tight or they will cut off the blood supply. In bandaging a limb, leave the finger or toes uncovered so they may be seen. Pain, swelling and blueness or coldness of the limb below the bandage shows that it is too tight, and it should be loosened. Always place the part to be bandaged in the position in which it is intended to leave it as otherwise change of position may result in cutting off the circulation by drawing this bandage too tight at some point. Remember in applying bandage that immediately after an injury there may be swelling. Use care not to have it too tight from this cause. Never apply a wet bandage, as it dries it will shrink and become too tight. Never reverse a roller bandage over a sharp bone. Always use a figure of eight over a joint. To be understood, the uses of a figure of eight must be demonstrated. Always bandage from below upward.

IV. HEALTH RULES NO. 5 AND 6.—CARE OF BRUISES, SPRAINS, DISLOCATIONS, AND FRACTURES, ACCIDENTS AND COMMON EMERGENCIES

Health Rule No. 5

Drink at Least Six Glasses of Water Each Day

Life is more dependent upon water than upon food. No plant or animal can survive when fluids are withdrawn. A person may live a long time without food if plenty of fluid is supplied; when no fluid is supplied the body dies rapidly.

Many foods supply a certain amount of water to the body; certain-vegetables and most fruits are practically all water. This supply is, however, quite insufficient for the needs of the body and must be supplemented by drinking water, if health is to be acquired and maintained.

More than three-fourths of the body weight is water. This water is being given off all the time, in the breath, through the skin, and by the other excretory organs.

It is, therefore, necessary to take a regular quantity of water into the body to make up this loss and to regulate the body. Six glasses of water daily is the minimum amount which will supply these demands.

Water must be pure if taken into the body. Many diseases, as typhoid fever, dysentery and the summer sickness of babies, are carried in the water. Be sure that the water in the well or cistern is not contaminated by any wastes washing or seeping into it. The University of Missouri or the Missouri State Board of Health will examine your water supply.

When camping or picnicing, boil and cool the water before drinking it, as spring water is not safe to drink, unless it has been examined recently and reported safe. Individual drinking cups are essential to health in the prevention of the spread of contagion, as colds, measles, whooping cough, etc.

“Drink, drink, drink,
Water pure and bright;
Drink, drink, drink,
Morning, noon and night;
Drink, drink, drink
In darkness and in light;
Drink, drink, drink.
And keep your body right.”

Health Rule No. 6

Eat Some Fruit and Green Vegetable Twice Each Day

Clean, smooth skin, free from scales and other blemishes is attractive and desirable. Fruits and green vegetables supply the element which

produces such a skin. They are as necessary in winter as in summer and can be readily supplied by giving some thought to the matter during the spring and summer. When planting the garden, remember that green vegetables should be eaten once, preferably twice each day throughout the year to help regulate the body, so grow enough to supply sufficient for the needs of the family in the summer as well as to can or store for the winter. All vegetables except potatoes, corn, dried beans, and peas are classed as green vegetables. These are valuable foods but should not be eaten to the exclusion of the green vegetables.

Cabbage, carrots, beets, onions, turnips, parsnips, squash, rutabago, and many others can be kept for winter use without canning.

Tomatoes are important as well as spinach and the other "greens".

Good Rules to Remember in Regard to Eating Vegetables.

We should eat green vegetables at least twice each day.

Plan to eat tomatoes two or three times a week.

Eat such green vegetables, as greens, green beans, asparagus, cabbage, onions, canned peas, carrots, or lettuce at least twice a week, and if possible four or five times.

Eat a raw vegetable as onions, cabbage, celery, lettuce, or raw fruit on days when tomatoes are not served.

When fruits are ripe, it is well to store the larger quantity as canned fruit, and the lesser amount as jam or jelly. Jam and jelly should be considered as desserts and eaten in limited quantities while the canned fruits can be eaten in larger quantities as a substitute for fresh fruits when such fruits are hard to secure.

"An apple a day
Keeps sickness away."

Common Emergencies

Nose bleed.—Keep head high. Place the first finger over lower edge of bone of nose on bleeding side and parallel with the bone. Use hand on bleeding side. Make firm pressure upward and inward. If bleeding is not readily controlled, send for a doctor.

Fainting.—Is due to lack of blood in the head. Place the patient on the back with head lower than the body. Loosen collar and belt. Open the windows and keep patient warm. Smelling salts or camphor may be held to nostrils. The face may be washed with a wet cloth. Avoid getting hair and clothing wet. When able to swallow, the patient may be given $\frac{1}{2}$ teaspoonful of aromatic spirits of ammonia in water. Open the windows.

Cramp or Colic.—A severe cramping pain in the abdomen.

Treatment.—A heated stove lid or a hot water bottle placed on the abdomen, or rubbing the abdomen will often give relief. Hot water with a little sirup of ginger should be taken. Indigestible matter may be gotten rid of by drinking several glasses of warm salt water and vomiting or by a cathartic, such as salts or sedlitz powder. If there is a collapse or prostration, send for a doctor.

Nausea and Vomiting.—This is caused by indigestible food, dyspepsia, nervousness or poison. When due to indigestible food, several large drinks of lukewarm water will usually cause free vomiting by washing out the stomach. Whatever the cause, the patient should lie down in a cool place. Hot applications of cloths wrung out of hot water, or mustard plaster may be applied to the abdomen. Drink $\frac{1}{2}$ glass warm water with $\frac{1}{2}$ teaspoonful baking soda in it. In severe cases sucking small lumps of ice will help.

Chill from Exposure.—Person is chilly. The lips become blue and teeth chatter.

Treatment.—Remove clothing, if possible, and put into warm bed, covering the patient warmly. Two or three hot water bottles, hot bricks, hot stove lids, or jugs filled with hot water will soon warm the bed well. Rubbing the limbs and body under the covers will also bring the blood to the surface and help to cure a chill. Hot drinks should be given. Hot tea, coffee, hot milk, or lemonade, are all good.

Shock.—Shock often occurs in various kinds of injuries. The face is pale, skin is cold and covered with cold sweat. The patient is more or less stupid. May be partly or totally unconscious. Send for a doctor at once. Warm and stimulate the patient in every way possible. Place head low, apply heat externally. Cover with extra coats or blankets. Apply hot water bottles or hot bricks. Rub arms and legs toward body. Avoid uncovering the patient. Hot drinks should be given if patient is able to swallow. Hot coffee or hot tea, or a half teaspoonful of aromatic spirits of ammonia in a half glass of water. If head is injured, *never* give stimulants.

Neuralgia of the face.—This may be due to irritation or bad teeth. Always consult the doctor and find the cause. Sometimes attack comes on suddenly before the doctor can be obtained.

Treatment.—Hot applications are better than cold ones. Rubbing and pressure on the painful nerves often give temporary relief. If due to a bad tooth, proper emergency treatment of the tooth by a dentist will frequently cure neuralgia.

Care for Accidents

“First aid” is employed to provide protection and comfort for the patient. Proper treatment furnished early often prevents later difficulty.

In case of accident or injury some one person should take charge. Keep the crowd back. Be calm and do not be hurried. Be quiet and cool. Loosen collar and belt or other tight clothing. Get patient into comfortable position. The injury must be clearly seen before any attempt is made to treat it. It is generally necessary to remove some of the clothing, and this is likely to be painful and possibly dangerous to the person, unless handled with greatest gentleness. Rip up the nearest seam in the outer clothing and cut or tear underclothing. The sound side should be undressed first so that the injured side will be subjected to less movement. In injuries of the foot and ankle, it is seldom possible to remove a boot or shoe without giving severe pain and perhaps doing considerable damage, so they should be cut freely when this is necessary.

Injuries where skin is not broken

Bruises.—a. Should receive attention to relieve pain, to prevent discoloration, to limit swelling.

b. If severe, send for a doctor.

c. Avoid moving the injured parts.

d. Cold applications will relieve the pain and may prevent discoloration.

e. Apply a firm, even bandage.

f. Elevate injured part to relieve pain.

Strains.—a. Are produced by overstretching a muscle.

b. Simple strains may be treated with hot or cold applications, gently rubbing toward the body.

c. If severe, call a doctor.

d. When pain and stiffness become less, gentle movement should be practiced.

Sprains.—a. Are injuries to joints.

b. Sprains of the wrist and ankle are the most common ones.

c. When severe or in doubt, call a doctor.

d. Begin treatment at once whether doctor has been called or not.

e. Elevate injured joint and enforce absolute rest. Make hot or cold applications for 24 to 48 hours.

f. Strap or bandage joint. In mild cases, movement may then be resumed.

g. A severe sprain is not a trivial injury but one which demands the services of a doctor.

Dislocations.—a. Send for a doctor.

b. Remember that attempts to reduce dislocations, other than those of the finger or jaw, by one without a doctor's training may result in great harm to the patient. Place the patient in the most comfortable

position and cover the injured joint with cloths wrung out of very hot or very cold water.

c. Dislocation of the fingers. The finger should be grasped firmly on the hand side. The end of the finger should then be pulled straight away from the hand and the bone will usually slip into place. If any difficulty is encountered, the efforts at replacement should cease and the doctor's arrival awaited.

d. Dislocation of the jaw. If the doctor can be promptly secured await his arrival. If a doctor cannot be secured at once, someone else may reduce the dislocation. A dislocated jaw with the resulting open mouth is most painful and uncomfortable. To reduce a dislocation of the jaw, both thumbs must be wrapped in several layers of cloth, to protect them from injury. Both thumbs are placed in the patient's mouth, resting on the lower teeth on each side, while the fingers seize the lower jaw outside. Pressure is made downward and then backward. As soon as the jaw starts into place the thumbs should be slid off the teeth to the inside of the cheeks or they will be caught between the teeth when the jaw springs into place. When the dislocation is reduced, put on jaw bandages.

Fractures.—a. Send for a doctor.

b. The object of any treatment before the doctor's arrival is to prevent further injury, such as the puncturing of the skin with the rough edge of the bone.

c. Avoid moving the injured part or the patient, if possible. If unavoidable, limit the motion of the injured bone.

d. One hand should support the broken bone on each side of the break. The bone must not be bent.

e. Afterward, the broken bone should be supported on a pillow or folded coat.

f. If the patient must be moved more than slightly, make traction with the hand on the distal end of the broken bone and support by splint on either side.

g. If clothing must be removed, cut along the seams.

h. The best position for the patient is usually on the back with the head low. If the face is pale, keep patient lying down, head low; if flushed, place head on pillow or folded coat.

i. In case of vomiting, turn the patient on the side, or turn his head to one side so the matter vomited will not get into his windpipe and choke him.

V. HEALTH RULE NO. 7.—CARE OF WOUNDS AND HOW TO STOP BLEEDING

Health Rule No. 7

Drink Milk—One Quart a Day is Desirable

“The milk way is the health way.”

Milk is the most nearly perfect food known. It helps to keep persons in good health and is essential for the best growth of the body, particularly of the bones and teeth. The growth of the bones continues until about the twenty-fifth year; the last tooth is usually cut during the nineteenth or twentieth year. Experiments have shown that a quart of milk a day during all of the growing period will furnish food stuffs for the best development of strong, hard bones and teeth.

Milk is an easily digested food. In addition to containing food stuffs that give energy and build muscle and bone, it contains vitamins that help keep persons in good health and that stimulate growth. A boy or girl who wants to develop the best and strongest body possible will drink a glass of milk each meal and eat milk dishes so that all together he or she gets a quart of milk a day.

It is necessary to know that the cows are free from tuberculosis, for milk from tubercular cows may produce tuberculosis of the bones, intestines and glands in human beings. Cows should be tuberculin tested.

Precautions should be taken that milk remains clean during the handling incident to its production and care. It is easily contaminated and certain disease germs may be carried in milk as typhoid, scarlet fever, and diphtheria.

Pasteurization can be done in the home. It is a simple process; does not require special equipment, other than a thermometer; and renders the milk safe. Quickly raise the temperature of the milk to 145 F. Keep it at that temperature thirty minutes. Cool quickly. Keep cool.

Drink milk for health—strength—beauty and growth.

Read “Milk for Growth, Health, Strength.”

Care of Wounds

Injuries where the skin is broken.—a. The skin is the protective covering of the body.

b. Whenever the skin is broken there is danger of infection and inflammation.

c. (a) Slight bleeding will do no damage but will wash out dirt and germs that have been introduced when the injury was made.

(b) Severe bleeding must be controlled by making pressure on the artery with the fingers, between the injury on the artery with the fingers, between the injury and the heart. Have patient lie down with

the head low. A tourniquet may be made of a handkerchief, towel, bandage, or cravat. Wrap a stone, cork, or similar object and place over the artery above the wound. Pass the strap twice around the limb loosely on the outside. Pass a stick between the two layers thus formed and twist until the bleeding is stopped. It is dangerous to leave a tourniquet in position too long. If the doctor has not arrived by the end of an hour, loosen the tourniquet slowly; if there is no bleeding, leave the tourniquet loose, but if bleeding commences, tighten the tourniquet again.

d. Slight scratches and cuts. Slight scratches and cuts may be treated by applying Tincture of Iodine with a cotton applicator and the wound protected by sterile gauze held in place by adhesive plaster strips or a bandage.

e. Severe Cuts. Severe cuts should be treated by a doctor. Cover the wound with clean gauze. If bleeding is severe, treat as above.

f. Punctured wounds. Punctured wounds are dangerous because infection may have been placed at the bottom of the wound and the small opening does not afford an outlet. Apply a sterile wet dressing.

Burns.—a. Exclude the air promptly. When the skin is simply reddened, any kind of ointment that is clean may be used, as carron oil, olive oil, sweet oil, vaseline, zinc ointment, fresh lard, or cream. A thin paste of baking soda, starch or flour and water may be used, or white of egg applied with loose bandage.

b. When a blister forms. When a blister forms puncture the blister at the lowest point with sterilized needle. Pat out the liquid with gauze. Apply ointment dressing. Bandage, or fasten dressing with adhesive plaster strips.

c. Deep burns. When the skin and underlying tissues are destroyed prompt attention from a doctor is required. While waiting the doctor's arrival, treat as above. Treat for shock, if necessary.

Bleeding

Symptoms.—Symptoms of severe bleeding are like shock and should be treated first. Besides actual appearance of blood in hemorrhage, certain symptoms appear, as faintness with cold skin, pale face, anxious expression, breathing, sighing, weak pulse, dizziness or loss of consciousness. Severity of symptoms depends on how rapidly blood is lost.

Control.—Place pressure bandage above bleeding wound. Lay patient down. Keep patient quiet. Cover him warmly. See that he gets plenty of good air and, if he wants it, cold water to drink. Never give stimulants or rub to increase the circulation. Sometimes it is necessary to give stimulants to keep the person from dying. Whenever possible, avoid doing so before bleeding has stopped.

VI. HEALTH RULE NO. 8.—USE OF THE MEDICINE CHEST**Health Rule No. 8***Play or Exercise out of Doors Each Day*

Exercise is essential for the development of muscle, strength, vitality, and endurance.

Exercise and work are two different things. Work develops certain muscles and produces fatigue.

Play develops many muscles, lessens fatigue and often is a rest, even after hard work.

Play is the best exercise known and is one of the important health habits to be acquired from the standpoint of mental as well as physical health and development; it develops "brain and brawn", and makes possible good posture and graceful carriage.

Play or exercise out of doors "in the garden of health" is far superior to play or exercise in doors. Sunshine is necessary for all plant and animal life. Boys and girls cannot grow properly without having the sunshine directly on them. Window glass cuts out part of the sun's ray, the part which is most necessary for growth.

Play that exercises many muscles is the best kind of play. Swimming, rowing, skating, wrestling, coasting, hiking, climbing, running, jumping, are some of the kinds of play that are good for both girls and boys.

Out of door games are very good, and develop the spirit of cooperation, teamwork, and other qualities which contribute to good citizenship.

For suggestions for games and recreation see General References, page 37.

"Play's the Thing."

Use of the Medicine Chest

Reference: "The Family Medicine Chest", Miss Mary E. Stebbins, Missouri College of Agriculture.

VII. HEALTH RULE NO. 9.—ARTIFICIAL RESPIRATION, CARRYING THE INJURED.—EMERGENCY TREATMENT FOR SUN-STROKE**Health Rule No. 9***Sleep Long Hours in Open Air or With Open Windows*

Sleep is to human beings what winding is to a clock.

A sufficient amount of sleep is one of the most important requirements for growth and for mental and physical development. It is nature's opportunity to rebuild what has been worn out by the day's work, to

build additional tissues for new growth, and to provide energy for the coming day.

Many boys and girls are underweight because of lack of an adequate amount of sleep, as much as because of a lack of an adequate amount of proper foods.

Growth demands much sleep. Body growth continues until about twenty-five years of age.

Sleeping in a closed room robs the sleeper of much of the benefit which should come from sleeping, and brings a morning of dullness and lassitude.

Sleeping out of doors or with windows open brings a morning of freshness, with clear head, happy smile, rosy cheeks, appetite for breakfast, a cherry "Good Morning" for the world and "pep" for the day.

In cold weather one should have plenty of light, warm covers, and wear a cap if the wind blows over the bed.

Keep the nose and mouth uncovered; sleep with the mouth closed. If you are inclined to open the mouth when sleeping, go to a doctor and find out whether there is any obstruction in your nose or throat that interferes with proper breathing. Any interference with proper breathing takes just that much rest away from sleep.

"Sleep that knits up the ravell'd sleeve of care,
The death of each day's life, sore labour's bath,
Balm of hurt minds, great nature's second course,
Chief nourisher in Life's feast."—MACBETH.

Artificial Respiration

Artificial respiration is a method of artificially supplying air to the lungs in the effort to re-establish breathing and is employed in the cases where the supply of air has been cut off from the lungs as when a person has been under water; in heavy smoke; in an explosion, where the person has been buried in a cave-in as sometimes occurs in mines; from gas, as from a leaky pipe leading to a stove or a light jet; or carbon monoxide, the heavy gas sometimes encountered in mines and in badly ventilated garages, tunnels, and subways, which are over-crowded with automobiles or other gasoline engines using certain kinds of gasoline. The exhaust gases from these engines may be quite poisonous.

In any case, where breathing has ceased because the supply of fresh air has been cut off, remove the person to a place where fresh air is available, send for a doctor, loosen any tight clothing, and keep the crowd back.

Demonstrate resuscitation of apparently drowned person. See Club Material for method.

Drowning.—Send for a doctor and pulmotor if possible. Do not wait for a doctor or pulmotor to arrive. Clean mud and water from nose and mouth with forefinger in a handkerchief. Place patient on his face, clasp around his waist, raise him by the middle with head hanging down. Hold him up for a few seconds in order that water may drain from throat and lungs. Place him on the ground face down, the arms stretched out at full length over his head or one arm may be bent so the forehead rests upon it. Turn the face to one side. Kneel by the side of or astride the patient's body without resting any weight on it. The palms of the hands are placed over the lowest ribs across the small of the back with thumbs nearly together. Lean forward and let your weight fall on your wrists.



Figs. 3 and 4.—First Aid in Drowning.

Exert this pressure for three seconds (To count 3 seconds say "One thousand and one, one thousand and two, one thousand and three"). Without removing the hands from the ribs, release the pressure for 2 seconds (count, "one thousand and one, one thousand and two.") Continue this alternate pressure and release, about 12 times a minute until breathing is restored. Artificial respiration should be continued for at least 2 hours unless breathing has been established earlier. If another person is present he should assist by keeping the body warm, rubbing the hands, feet, limbs, drying hair and making hot applications. Camphor or ammonia may be applied to nostrils. Warm the head nearly as fast as the rest of the body. After breathing is restored, remove the patient to a warm bed where there is plenty of fresh air. Give small quantity of hot drinks, as tea, coffee, or ginger tea.

Carrying the Injured

The best method of transporting an injured person is in a wagon or motor truck. The bottom of the vehicle can be padded with hay, straw,

clothing, or similar material, and the patient laid on this or a mattress. It is imperative in fractures of the thigh or upper part of the leg that the patient be stretched out at full length; also that he be reclining if he has shock or other serious constitutional symptoms. The great number of automobiles and taxi-cabs in use and the speed and smoothness with which they travel makes them especially applicable for cases where the patient may be allowed to assume a sitting position, such as injuries to the upper extremities or the foot. Frequently such modes of transportation are unavailable and then recourse must be had to stretchers or litters.

Stretchers are appliances for moving the sick or injured and are borne by two or more persons. The essential parts of a stretcher are two stout poles about 8 feet long with a strip of some strong material fastened between on which the person lies. The ends of the poles can be used as handles. A very serviceable litter may be devised out of two gunny sacks and two suitable poles. Two holes are made in the bottom of the sacks at opposite corners. The poles are placed inside the bags, thrust through holes, and the sacks drawn into place. Cross strips of wood may be lashed or nailed between the poles to hold them apart.

Another method is to lay a blanket on the ground and roll the outside edges around the poles and to continue the rolling until the poles are about 20 inches apart. The blankets are then fastened by nailing them to the poles or tying securely with strips of strong twine. Canvas may be used in place of a blanket.

A coat stretcher is constructed out of two coats and two side poles. The coat sleeves are first turned inside out. The poles are thrust through the sleeves from the shoulder and the coats buttoned around the poles with the buttons down, making a webbing across.

Every improvised stretcher should be tested by placing a well man on it before it is used for an injured person.

Ordinarily place the stretcher alongside the patient, who is on his back on the ground. If plenty of help is available, have one person raise the head and shoulders, another the hips, and a third the knees. These helpers stand or kneel on one side of the patient, with the stretcher on the other side. A fourth assistant stands on the opposite side, and his whole duty is to reach over the stretcher and handle and support the injured arm or leg.

But if two persons are present, the head and shoulders may be lifted on the stretcher first. The helpers then change their position to the lower part of the body and lift the hips and legs onto the stretcher, guarding the injured part as carefully as possible.

When the patient is on the stretcher he should be well covered with blankets or clothing. Ordinarily the bearers can well dispense with their coats for this purpose. It makes no material difference whether he is carried feet or head forward except in going uphill or upstairs, when the head should always go first. The bearers should break step and proceed slowly. The stretcher handles should be supported by the arms hanging down and should not be borne on the shoulders. [If obstacles are encountered it is best to try to go around them.



Fig. 5.—Carrying the Injured.

Occasions may arise when it is impossible to take sufficient time to obtain a stretcher or other appliance for carrying an injured person. Under such circumstances, it is necessary for the helpers to carry the patient without the assistance of any apparatus. If there are two bearers a man may be carried a short distance on what is known as the “lady’s chair.” This is formed by each bearer grasping the left wrist with his right hand. The free left hand then grasps the right wrist of the other assistant. The injured person sits on the support formed and places his arms around the necks of the operators. Another method is for the bearers to stand side by side and each grasps the other’s nearest shoulder. The outside hands are clasped together and the patient sits upon these. The other arms act as a backrest. An unconscious man may be carried for a short distance by the forward bearer standing between the legs and seizing the knees, and the rear bearer supporting the shoulders by putting his hands in the patient’s armpits.

It is extremely difficult for one person to carry a patient for a considerable distance. If the patient is conscious, he may be carried on the

back with his arms around the neck of the bearer and his thighs supported by the bearer's forearms in the manner known to children as "piggy-back." The greatest difficulty, however, comes when a single bearer attempts to pick up an unconscious person. It is, of course, practicable to lift a child or a very small adult in the arms, but with a heavy individual this is impossible for a man of ordinary strength.

Sunstroke

Sunstroke and heat exhaustion.—Send for a doctor. Remove patient to shade or cool spot. Loosen and remove as much clothing as possible. Apply cold water, or ice to head and body. Put patient in tub of cold water, if possible, or wrap in sheets wrung out of cold water. If this is done, rub the patient continually to prevent shock and to bring the hot blood to the surface.

VIII. DEMONSTRATIONS

In so far as possible all club members should be instructed in the regular club meetings by the demonstration method. As a usual thing one or more members of each club can begin doing before the club useful phases of the work program soon after the processes have been demonstrated by the club leader.

After two or three months of practical experience in handling real things, all mature club members should be able to give public team demonstrations. The scope of the team demonstration usually should be limited to the essential processes of some phase of the club work of the current year on one subject. A team of two or three of the best demonstrators, according to the number needed, should be selected from the membership of one club, either by mutual consent or by competition. All teams should have an opportunity to demonstrate before the local club group and the people of the home community, and the championship team should represent the local club at the county roundup, if one is held.

Suggested Subjects for Team Demonstrations

- Carrying out the injured.
- Hand washing at picnics, camps, etc.
- Health postures.
- Teeth and their care.
- Putting on bandages or other first aid measures.
- Use and application of triangular bandages.
- How to make, use and apply four-tailed bandages.
- How to make, use, and apply roller bandages.
- Care of emergencies.
- Care of wounds and how to stop bleeding.

SCORE CARD FOR JUDGING DEMONSTRATION TEAMS IN MISSOURI

	Perfect Score	Actual Score
1. Subject Matter	30
(1) Importance of the subject matter presented and relation to fundamental problems of home or farm.		
(2) Accuracy of statements made in oral presentation and proper methods in doing the work.		
(3) Completeness with reference to the giving of all steps necessary to clear understanding of process.		
(4) Clearness and definiteness of statements made in simple language easily understood.		
(5) Replies to practical questions. Judges' questions only should be considered in team scores. Team should give authority for subject matter presented.		
2. Team Work	20
(1) Preparation, arrangement, and use of materials. The team will be responsible for the arrangement and preparation of equipment and its use.		
(2) Organization of work, each member in so far as practical to be kept busy with a definite part so that the work and instructions given proceed without delay, but each member of the team should be able to demonstrate the whole process.		
(3) Appearance and conduct of the team. Appearance and conduct includes the personal appearance of the members, and of the team as a whole. They should be business-like, pleasant and so far as possible, a unit in action and appearance.		
(4) The team member not actually directing the demonstration should re-influence the point at hand or at least should not detract from the theme of the demonstration.		
3. Skill	20
(1) Ease in procedure.		
(2) Workmanship and efficiency of manipulation.		
(3) Neatness and cleanliness in doing work.		
(4) Speed, system, or dispatch		
4. Results	15
(1) Effect upon the audience, and also upon materials used in the demonstration, as may be shown in the finished product.		
(2) All processes made clear.		
5. Practicability	15
(1) Value of principles given for the home, community.		
(2) Actual club practices shown.		
TOTAL SCORE	100

SUGGESTED OUTLINE OF A DEMONSTRATION ON USE OF THE TRIANGULAR BANDAGE

Explanation

This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".

Equipment: Table, scissors, unbleached muslin, soft material as flour sack, large handkerchief, roller, many tailed and triangular bandages, split, and safety pins.

It is suggested that each demonstrator wear a 4-H club cap, made up in the national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

Procedure

"A"	"B"
<p>"A" leads team in giving a club song and the 4-H club pledge; tells what club or county the team represents; introduces team-mate and self.</p> <p>States what the team will demonstrate.</p> <p>The uses of the triangular bandage.</p> <ol style="list-style-type: none"> (1) Purpose of triangular bandage. (2) Materials. (3) Demonstrates and explains how to cut a triangular bandage. (4) Demonstrates and explains how to apply this bandage. <ol style="list-style-type: none"> a. To an injured eye. b. To hold a dressing on the chest. c. To use as a shoulder bandage. d. Etc. <p>"My team-mate will show you some other uses of the triangular bandage."</p>	<p>"B" joins in giving club song and pledge, and then stands at attention until introduced.</p> <p>Gets the equipment in order on the table ready for work.</p> <p>Assists "A" as needed in the demonstration.</p> <p>Acts as patient.</p>
<p style="text-align: center;">"A" assists</p> <p>Acts as patient.</p>	<p>"B" leads in speaking and demonstrating.</p> <p>2. Continues to demonstrate use of triangular bandages.</p> <ol style="list-style-type: none"> (1) As hand bandage. (2) To control bleeding (3) As palm bandage. (4) As a sling for the arm. (5) For fastening on a splint. <p>"My team-mate will complete the demonstration."</p>

<i>"A" speaks</i>	<i>"B" assists</i>
Gives a brief summary of the uses of the triangular bandages. Asks for questions. Repeats questions and answers them. Concludes the demonstration.	Folds up materials. May help in answering questions.

SUGGESTED OUTLINE OF A DEMONSTRATION ON EMERGENCY CARE OF A BROKEN BONE

Explanation

This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".

Equipment: Splints for arm and leg, bandage, strings, home-made stretcher, sling, and safety pins.

It is suggested that each demonstrator wear a 4-H club cap made up in the national club colors of green and white.

Inasfar as practicable, members should arrange their own equipment and stage and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

Procedure

<i>"A"</i>	<i>"B"</i>
<i>"A" speaks</i>	<i>"B" assists.</i>
<p>"A" leads team in giving a club song and the 4-H club pledge; tells the club or county the team represents; introduces team-mate and self.</p> <p>Formally states what is to be explained and demonstrated.</p> <p>1. How to use splints on a broken arm.</p> <p>(1) Demonstrates and explains use of splints.</p> <p>(2) Removes splints and explains process.</p> <p>"My team-mate will show you how we learned to care for a broken bone in the leg."</p>	<p>"B" joins in giving the club song and pledge, and then stands at attention until introduced.</p> <p>Gets material in order ready for use.</p> <p>Acts as patient with broken arm.</p>
<i>"A" assists.</i>	<i>"B" speaks and demonstrates</i>
Acts as patient.	<p>2. How to use splints on a broken bone below the knee.</p> <p>(1) Puts splints on and explains process.</p> <p>(2) Makes and explains how to</p>

	<p>make an emergency stretcher.</p> <p>(3) Asks for a volunteer boy to help carry the patient, explaining how to proceed.</p> <p>(4) Carries patient a short distance, then removes splints.</p> <p>“My team-mate will complete the demonstration.”</p>
<p><i>“A” speaks</i></p> <p>Summarizes the points demonstrated in the care of a broken bone.</p> <p>Asks for questions. Repeats questions and answers then. Concludes the demonstration.</p>	<p><i>“B” assists.</i></p> <p>Gathers up all material in orderly way.</p> <p>May assist in answering questions.</p>

GENERAL REFERENCES

Additional information on special subjects can be obtained from the following sources:

“Eyesight and Health,” “How to Live Long,” “Care of the Teeth,” “First Aid in the Home,” by Irving Fisher; Metropolitan Life Insurance Company, New York City.

“Tonsils and Adenoids,” “Hand Washing Drill,” “Tooth Brush Drill.” (A method by which a large number of people can wash their hands in a short time, as before eating dinner at a picnic, supper at a church, or a community gathering where food is served); Missouri State Board of Health, Jefferson City, Missouri.

“Daily Procedure for the Treatment of Constipation,” “Milk for Growth, Health, Strength,” Missouri College of Agriculture, Extension Service, Columbia, Missouri.

“Milk For Sound Teeth,” price 3 cents; National Dairy Council, Chicago, Illinois.

“American Red Cross Abridged Text Book on First Aid,” price 60 cents; Local Red Cross or St. Louis Branch of the National American Red Cross, St. Louis, Mo.

Suggestions for play and recreation; State Club Office, Extension Service, Missouri College of Agriculture, Columbia, Mo.

