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# Safeguards to Health

Mary A. Covert

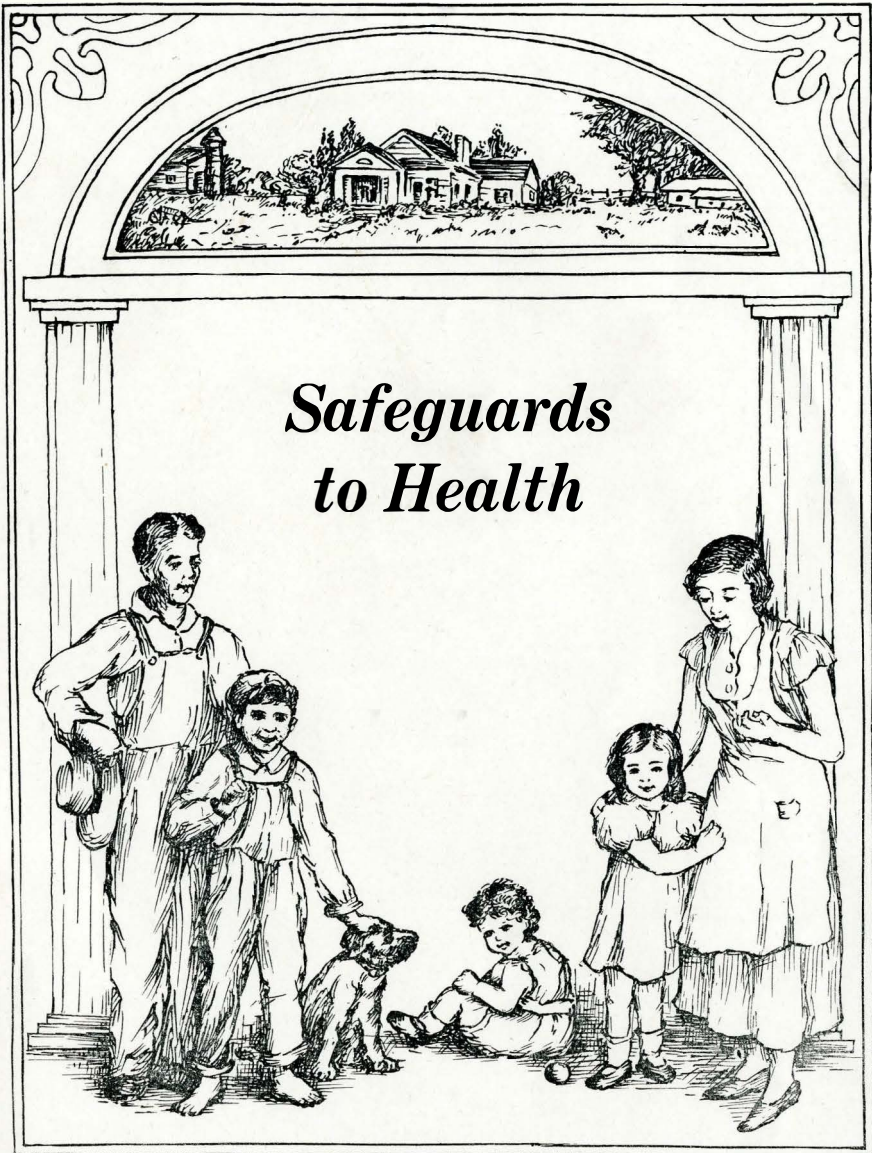
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**Safeguarding South Dakota Homes Program  
Keeping the Family Well**

**SOUTH DAKOTA STATE COLLEGE  
EXTENSION SERVICE  
Brookings, S. D.**

# *Safeguards to Health*

By Mary A. Covert

Extension Specialist in Home Management

Cooperation in a campaign to keep the family well will result in a saving of dollars and will add much to the happiness and general efficiency of the home. Many factors making for positive health might be considered if space in the circular permitted. Those selected for discussion here are: Adequate diet, correct breathing habits and other factors of personal hygiene, proper heating, lighting and ventilation, home sanitation, the avoidance of contagious diseases and accidents.

## **Food Habits**

There is danger, during a period of economic depression, that the family may not be properly nourished. In an effort to economize, essential food factors may be omitted. Fear and worry frequently dull the appetite and disturb the digestive system causing some to be improperly nourished, simply through failure to eat or inability to digest the food eaten.

"Good Food Habits for Children"—Leaflet No. 2, U. S. Dept. of Agriculture and the following circulars published by the Extension Nutrition Specialists of State college will furnish information concerning adequate feeding of the family: "Food Needs for Health," "Tooth Building Foods," "Regulating and Coordinating Health Factors," "Winter Vegetable Cookery," "Economizing in Grocery Purchases," "Low Cost Foods," "Preparing Low Cost Foods," "Constipation," "Adequate Economical Foods," "Health Value of Whole Grains."

## **Breathing Habits**

In order to be healthy one's body must be well supplied with oxygen which is needed to turn the food eaten into muscle tissue and energy. To accomplish this one must breathe deeply and freely. By breathing deeply, we mean making use of the diaphragm to help empty and fill the lungs. The capacity of the lungs can be enlarged by persistent deep breathing. The nose, not the mouth, is made for breathing. It is supplied with a radiator system for heating cold air and with a sieve-like system of hairs to strain out impurities. It is also supplied with a self flushing system to rid it of the waste products from the air. Mouth breathing permits the air to enter the lungs without having been heated or strained. Both the cold and impurities irritate the bronchial tubes and lungs.

Mouth breathing often results in the swallowing of air. If done excessively it causes trouble which may range from a depressing dull hurt in the region of the chest and heart to an acute pain in the stomach. When the stomach becomes overloaded, the air is usually forced out. Sometimes it is forced back up through the esophagus or it may pass out into the intestines. What one may think to be gas caused from decomposition of food may be swallowed air.

There is an increased tendency to swallow air when one is unduly fatigued or under excessive nerve or emotional strain. Air is usually swallowed with yawning. Sighing and yawning may become a habit with a mental as well as a physical basis. They become a form of mental or emotional release. It is possible to break one's self of the habit. If one forces one's self to yawn or sigh with the mouth closed, the act loses satisfaction and one is made conscious of more sensible modes of supplying the physical or mental need which prompted the yawn or sigh. Possibly the air is stale and the room needs ventilating, perhaps you have not been breathing sufficiently deep or maybe you are bored mentally and need to find new diversions.

### **Mental Hygiene**

Worry and fear affect the body as well as the mind. They sap one's store of nerve energy and interfere with digestion. They impair one's mental life. They destroy the power to concentrate. They make for indecision and cowardice. They lay the foundation for failure and unhappiness. The basis of worry and fear is usually a misguided imagination. They are usually based on what one fancies may happen or may not happen rather than on actual facts.

Fear and worry do more than impair the health, happiness and success of the person affected. They produce an unhealthy home atmosphere which may impair the health, happiness or success of other members. It should be the business of the home to build up a philosophy of living which will help to maintain a healthy mental atmosphere in which its members may develop to their fullest capacity. Each member will find ways to prevent undue concern about his welfare on the part of others. Each member through the development of habits of order and carefulness can contribute much of peace and security to the home atmosphere.

Just as worry, fear and bad thoughts weaken the body and produce an unhealthy atmosphere in the home, so also do good thoughts and good news cause a beneficial bodily reaction. Good news, anticipated pleasures, make the body tingle with life, cause the eyes to sparkle and color to flow to the cheeks. Pleasant surroundings, good reading matter, enjoyable friends, interesting hobbies, all tend to produce a feeling of well being and health. The family should form the habit of recognizing and calling attention to the good and the pleasant which happens in their home, the community and world at large. There is need for thoughtful expression of appreciation by words as well as action. It is the apparent lack of appreciation which often causes worry, misunderstanding, and discord in the home. The home atmosphere will grow dull and heavy unless each member feels it his responsibility to keep it brightened with pleasant surprises, interesting information, contributions of beauty, appreciation and good cheer. The cost of these contributions is little or nothing for they are largely products of one's own mind.

### **Other Personal Factors Affecting Health**

Good posture, adequate sleep, avoidance of undue fatigue, regular bathing, care of teeth, the importance of recreation and relaxation have been discussed in previous lessons. A check should be made by each member of the family as to his habits in regard to these practices.



It is said that 90 per cent of illness is contracted by germs entering the body by way of the hands and mouth. Children should be taught to keep their hands out of their mouths and grown-ups who have a hang-over of this childish habit should make a real effort to break it.

The service of a competent physician is a real investment when used to keep a check on the family health. Each member should have a thorough physical examination once a year. Ailments detected in their beginning stage can be corrected with much less expense and inconvenience than if neglected. Dr. Tillisch of the Students' Health Department, State college reports an increased number of defective teeth and tonsils among college freshmen this year. Infected teeth and tonsils are indirect causes of many diseases, common among which are rheumatism, heart trouble and general sluggishness which cuts down personal efficiency.

Dr. Tillisch also calls to our attention the effect of fluorin upon the teeth. He urges that all artesian well water used for drinking be tested. More than two parts of fluorin in a million parts of water affects the teeth of children under twelve years of age. It causes deduction of the enamel, leaving the teeth mottled and in a condition to decay readily. He advises that where the well contains fluorin in a quantity above this per cent that the children under twelve years of age be supplied with water from a shallow well, rain water or water from some other source. Another thing which he calls to our attention is the importance of correctly fitting shoes for baby girls and growing girls. He states that 80 per cent of the girls who come to State college have defective feet caused by wearing shoes which have been too short and narrow. The best of these 80 per cent he says are defective to the extent of causing painful walking. Good feet are essential to healthy happy living.

### Heating and Ventilating the Home

The condition of the air, the amount of moisture which it contains and its temperature have a direct bearing on the health of the family. The problem of adequate moisture in the air is discussed in Extension Service "Fuel Economy Leaflet No. 3." There is a tendency for parts of the home to be over-heated in winter. One gets so accustomed to the excessive heat that it is almost impossible to keep a check on the temperature without a thermometer. A room thermometer which is really used in controlling the temperature saves a number of times its cost in helping to prevent colds.

When a door to a cold room or a window is opened to cool off the room, drafts are created. One should neither sit nor sleep in a draft. Fresh air is needed. Some form of ventilation is necessary.

It is possible to ventilate the house in winter without drafts. A wind-break like the one in Fig. 1 is easily made. It can be moved from one window to another if the windows are fitted with two screw eyes accurately spaced. These ventilators are so easily made and so inexpensive that one should be provided for each room. The 2-inch frame is made of scraps of lumber. The side

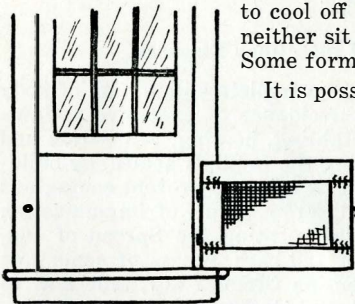


Fig. 1.—Window ventilator.

strips are 12 inches long. They are fastened to the top and bottom strips with  $\frac{3}{8}$ -inch corrugated fasteners. The opening of the frame is covered with cloth neatly tacked in place. Two square shoulder hooks are screwed into the right edge of the frame. These fit into two screw eyes placed in the window casing. A screen hook at the other side is used to fasten the frame. Another may be placed on the bottom strip to hold the ventilator partly open. The ventilator is useful in the summer time as a screen when one is dressing, and wishes to have the window open. The shade can be pulled to the top of the ventilator which can be left slightly ajar.

### Home Lighting

Correct lighting, both day time and night, has a direct influence upon health. Gloom is depressing and causes eye strain. Too direct or excessive light irritates the eyes. Either condition may cause headache or may result in some form of digestive disturbance as well as injury to the eyes. The home should be checked on its lighting. Some window shade may need to be kept continuously raised. Another may need adjusting throughout the day. Wall lamps with homemade reflectors may need to be provided in certain rooms. A good reading light centrally located is an essential for the farm family which does not have electricity or gas. Children should be taught the proper use of their eyes in regard to light.

### Home Sanitation

Unless cleanliness is made the watchword of each member, it is easy for the family to lapse into careless habits such as handling or eating food without washing the hands; permitting vegetables or fruit to decay in the cellar; washing dishes, cooking equipment, the cream separator and milk utensils in a slipshod manner, allowing dirt, bacteria and germs to collect in seams and crevices; carelessly disposing of dish water, slop and human excreta; permitting rubbish to collect. These and similar unsanitary practices invite diseases.

Sunshine and soap are cheap and effective disinfectants. These may be supplemented when needed by using the laundry bleach described in Extension Circular 321 entitled "Keeping Up Household Appearance." The sediment from making this bleach or disinfectant is excellent for use as a disinfectant for toilets and drain pipes.

### Avoidance of Contagious and Infectious Diseases

Well balanced diet, properly cooked food, complete elimination of body wastes, mental hygiene, adequate sleep, avoidance of excessive fatigue, deep breathing, home sanitation, proper lighting, heating, ventilation and air conditioning, do much toward conserving the family's health, by building up resistance, but other measures must be taken to prevent contagious and infectious diseases. Quarantine and different forms of immunization are discussed in Extension Circular 266 "Preventing the Spread of Disease." Even with the greatest precaution and care, illness of some sort develops eventually in every home. Extension Circular 267, tells how to help the sick get well without causing the whole household to suffer because one member is sick.

### The First Aid Cabinet

The home should be prepared for emergencies or accidents or illness. The average home first aid cabinet is inadequate because it is poorly planned. It is usually too small and not well proportioned. The one shown in Fig. 2 is recommended for your consideration. It is roomy, yet compact. There is a place for everything. All things are visible and readily obtainable.

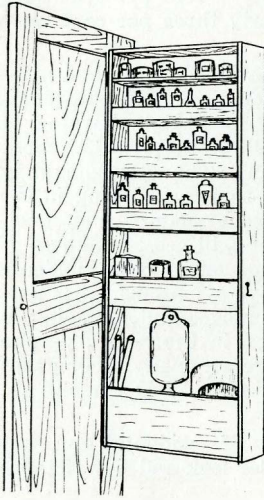


Fig. 2.—Convenient on-a-door medicine and first aid cabinet.

Supplies for the cabinet have been listed in Extension Circular 254. To this list might be added a fountain syringe, a stupe wringer and flannel pieces for hot applications.

### Accidents in the Home

A few years ago a statistician working on the toll of fatal accidents in the United States made the startling discovery that more people died of accidents which occurred in their homes than lost their lives on the street, in the water or throughout all industry. Fatal accidents in the home totaled 27,000 in 1931. This does not give a complete picture, however. There is an average of four million non-fatal injuries in the home each year. The resulting suffering, loss of time, and money from these accidents is so great that it is beyond our comprehension.

Falls are the cause of more than one-third of the home accidents. Adults have more than half of these accidents. In 1930, falls in homes caused the death of 11,900 persons. These falls were on stairs, and steps. on walks and uneven ground, on ice, in bath tubs and showers, from ladders and scaffolds, from chairs, tables and windows. Falls are also caused by things out of place, slippery floors and rugs, shoes, clothing, furnishings and equipment needing repair.

Next to falls, fire is the most fatal hazard to life in the home. Burns, scalds and explosions in homes take the lives of 6,000 persons annually. Children suffer most from burns. In 1929, 31 per cent of the victims of fatal burns were children under five years old and 14 per cent were in the 5-14 year age group. Statistics for 1929 also show that home property was damaged by fire to the extent of about \$28,000,000 and that the main causes of this great loss were careless habits with matches and smoking.

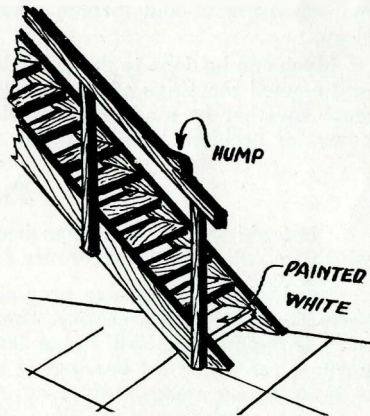


Fig. 3.—Make the cellar stair safe.



Other causes of these accidents are careless storage and use of explosives and inflammable substances.

Twenty per cent of the home accidents involve cuts on sharp instruments or glass, seven per cent were due to collisions with persons or objects, nearly six per cent were due to falling objects, four per cent were caused while handling or lifting objects, and nearly three per cent were animal or insect bites.

Many deaths are caused each year by asphyxiation from carbon monoxide. These accidents occur most frequently in home garages, bathrooms or kitchens. Carbon monoxide is formed by the incomplete burning of materials containing carbon. One cannot see, smell or taste carbon monoxide so it is very important to recognize its effects. The symptoms may include a feeling of pressure in the region of the temples, ringing in the ears, severe headache, gastric distress accompanied by nausea and sometimes vomiting, fluttering of the heart, sensation of chilliness, weakness of the legs, blurring of vision. So subtle is the gas that one may be suddenly overcome by it without having felt any of the above symptoms. It is possible to avoid the dangers of this gas by keeping stoves and plumbing in repair and through providing adequate ventilation in the house, garage and in the auto when the engine is in action. There are many other gases which cause illness and death in the home. More than 2,000 persons are killed in their homes every year in this manner.

It is estimated that 1,000 persons die annually of accidental gun shot at home. Guns and ammunition should be kept under lock and key if there are children in the house.

According to statistics, the frequency of accidents in the homes of the United States had increased 17.23 per cent from 1929-1932. This big increase of accidents in the home is regarded as the result of economic conditions which have caused people to remain around their homes more than customarily. Living conditions have been more crowded because of unemployment and the necessity of economizing on fuel. Muscle tone of people in general has been impaired to a greater degree than usual through mal-nourishment and fatigue which comes from fear, worry and loss of sleep.

Much can be done to make the home a safer place in which to live. Several council meetings of the family might well center on this subject and some member be made responsible for making a thorough check on the home for accident hazards which need correcting.

### First Aid

First aid in the home has been discussed in Extension Circular 254 which we will use as a reference for this lesson.

**Bandaging.**—There are very few homes in which bandages do not at some time become a necessity. There should be at least one member skilled in their application. Skill in bandaging depends on fully understanding the purpose for which the bandage is applied and manual dexterity in putting it on. A proper amount of pressure in the right place and sufficient support are points more important, than neatness, though neatness should be cultivated. The roller bandage, the abdominal and the triangular bandage are best adapted for home use.



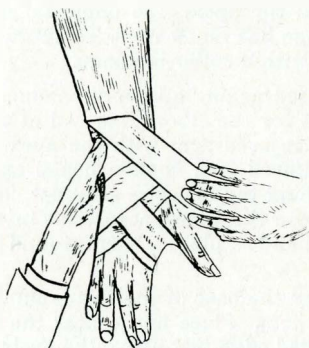


Fig. 4.—Starting the reverse on roller bandage.

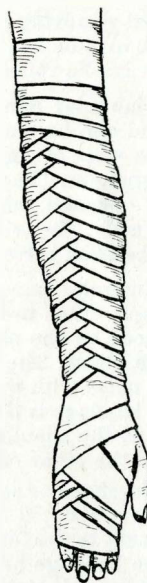


Fig. 5.—Roller bandage completed on hand and arm.

**Roller Bandage.**—The average bandage should be 4 or 5 yards long. For head, arm or leg the bandage should be  $2\frac{1}{2}$  inches wide. The roller breast bandage should be 3 to  $3\frac{1}{2}$  inches wide. The following things should be kept in mind when applying roller bandages:

1. Never apply a wet bandage. It will shrink and be too tight when dry. Have the bandage rolled tightly before you begin. Never unroll more than 2 or 3 inches of the bandage at a time.

2. Make sure that the arm or leg is in the position in which it is to be kept. The arm to be bandaged should be flexed at the elbow with the thumb pointing upward.

3. Stand in front of the part to be bandaged. Apply the outside of the bandage to the inside of the hand or foot and fix end by wrapping the bandage around for a few times before reversing.

4. Leave tips of fingers and toes uncovered. If they turn blue the bandage is too tight and should be loosened. Use firm equal pressure. The bandage is too loose if the edges turn up on running the hand down over it after it is finished. Red lines left on the surface of arm or leg after the bandage is removed, indicate uneven pressure.

5. Reverse the bandage as indicated in Fig. 4. Allow each turn of the bandage to overlap about two-thirds of the preceding turn.

6. Avoid reversing on a sharp bony prominence, keep reverses in a line on the outer side of arm or leg as in Fig. 5. When bandaging a joint always use a figure 8.

7. When removing a bandage gather up the loosened part and carry it around the arm or leg. The bandage may be laundered and used again. It should always be rolled before an attempt is made to apply it again.

**The Triangular Bandage** makes a good emergency bandage. It is easily applied and can be made from a handkerchief, dish towel or pillow case. The square piece of cloth is folded diagonally and cut along the fold forming two bandages. The diagonal side is considered the base of the bandage. The point opposite this side is called the apex. The opposite points are called the ends. The triangular bandage has many uses. Temporary dressings may be fixed better with it than with a roller bandage.

The triangular bandage may be used as an "all-over" bandage for the hand or foot. When used as a support for the elbow, one end of the bandage is placed on the shoulder of the injured arm with the apex pointing toward the elbow. The forearm of injured arm is then flexed and placed across the chest with the fingers touching the opposite shoulder. The lower end of the bandage is then drawn up over the elbow, across the injured arm and chest to the shoulder where the hand is placed, then around the neck and tied to the other end.

For a forehead or scalp wound, turn the base of the triangular bandage back to form about a 2-inch fold or hem. Place and center the bandage with fold next to the forehead and folded edge just above the eyebrows, the apex of the bandage hanging down over the back of the head to the neck. Draw the two ends tightly backward above the ears, cross at back of neck, bringing to the front and tie. Draw the apex of the bandage down to make it fit snugly to the head, turn it up and pin it.

**Abdominal Bandage** is recommended for support under various conditions. A roller towel or several towels pieced together may be used in an emergency. A new bandage should be made double. It should be wide enough to come down well over the hips and long enough to lap 4 inches. To apply arrange it in position with the center at center back. Estimate the amount of darting needed to fix it to the waist. Pin darts in place with safety pins. Lap the bandage in front with the hand under the bandage. Draw it as tightly as possible and pin, beginning at the middle and pinning downward, then pin from the middle upward. When the bandage is all pinned and the hand is removed it should be comfortably snug.

### Hot Applications

Hot applications are difficult to prepare without a stupe wringer. One may be made from a piece of ticking or stout toweling as shown in Fig. 6. Hems are placed in each end and pieces of broom handle inserted. Old woolen cloths make satisfactory stupes. When folded to four thicknesses they should be larger than the area to be covered. The folded cloth is placed in the wringer and the whole immersed in a pan of boiling water and allowed to remain until thoroughly saturated. Empty the water from the pan and carry the wringer and stupe in the pan to the patient. Place a binder under the portion of body to be treated. Wring the stupe as dry as possible by twisting the sticks in the opposite direction. Lift the folds of the stupe slightly to let some of the steam escape. Lift the stupe above the area and lower it to position momentarily for several times before

placing it to remain. Place a dry cloth over it and pin binder to hold the stupe in place. The stupe should be removed before it gets cold. A hot stupe should be ready to apply before removing it. After the last stupe has been removed, apply a coating of vaseline or lard to the area treated.



**Fig. 6.—Stupe wringer for preparing hot applications.**

**Extension Service  
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