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Good Health
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MICHIGAN AGRICULTURAL COLLEGE

EXTENSION DIVISION

R. J. BALDWIN, DIRECTOR

East Lansing, Mich.

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BULLETIN No. 18

EXTENSION SERVICE

JANUARY, 1919

GOOD HEALTH



"The real wealth of a nation is in its manhood, its womanhood and its children, and the highest duty of a nation is to conserve the life and health of the people."

ENDORSED BY

DR. R. M. OLIN, Executive Secretary
MICHIGAN STATE BOARD OF HEALTH

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Warrant, an
EDWARD J. BREWSTER

GOOD WILL



W. C. BREWSTER
EDWARD J. BREWSTER
W. C. BREWSTER

GOOD HEALTH

There never was a more cooperative proposition than this one of health. No individual nor family can work it out alone. It is not enough for us to say to ourselves: "I am going to study the principles of healthful living and live up to them—and keep well." That is only part of the game. To be sure we must cultivate habits of personal hygiene: that is indispensable. But we must have a much broader point of view. As individuals we must say to ourselves:

"I must keep well not only for myself but because of those with whom I come in contact, I should not only cultivate habits of personal hygiene, but of family hygiene and community hygiene as well. I must learn to do nothing that will help spread disease. I must be sure that conditions do not exist in my home that would tend to spread disease. And I must take my share of responsibility regarding the conditions in the community where I live, recognize the problems, and stand back of all movements leading to better sanitation and more healthful conditions."

COMMUNITY HYGIENE	}	GOOD HEALTH
FAMILY HYGIENE		
PERSONAL HYGIENE		

Prevention

Prevention is the most important factor in the matter of good health. No factor is more neglected.

If you should come upon a dangerous hole in the sidewalk you would naturally step around it and save yourself from injury. Your instinctive common sense would save you. Why not do likewise with disease? *Avoid disease by preventing it!* Keep it away from yourself, from your family, from your community.

Believe in health.

Talk health.

Practice health.

Prevention by wholesome, hygienic living amidst clean, sanitary surroundings is one of the sanest, most sensible ways of practicing health.



Community Hygiene

Let us first consider community hygiene.

Disease is spread through the discharges of the human body—the discharges from the nose, mouth, intestines, and kidneys. Care to dispose of these discharges properly is the most important factor in the problem of controlling contagious diseases.

Certain phases of this problem can be solved only through the education and cooperation of individuals. Sometimes, as in farm homes, much of it is a family problem. But more and more, as families live in closer contact with one another, does this matter become a community problem.

The disposal of sewage, the cleaning of streets, the collection of garbage, quarantine laws—even in the smallest hamlet these questions and many others should be recognized as being of interest to the community as a whole. The community must safeguard itself by recognizing and improving conditions detrimental to the general health.

Sewage—“For every death from typhoid somebody ought to be hung,” said Lord Palmerston, Prime Minister of England. The proper disposal of sewage is one of the greatest needs of every home.

Poor sewerage and the insanitary toilet open to the “typhoid fly” is the greatest menace to health in any community. “From flies and filth to food and fever.”

The following bulletins give very valuable advice in solving this problem:
Public Health Engineering Bulletin No. 2, Michigan State Board of Health, Lansing, Michigan.

Cornell Reading Course, Vol. III, No. 59, Sanitation, Series No. 4, N. Y. State College of Agriculture, Cornell University, Ithaca, N. Y.

Public Buildings—Public buildings should be well ventilated.

They should be kept clean—even cleaner than the homes, for more people assemble in public meeting places than in homes.

They should have suitable toilet facilities, and these should be clean and sanitary. School houses should receive especial attention in this respect. So also should churches and rural halls.

Garbage Disposal—The disposal of garbage is a community as well as a family problem. Has your community solved this satisfactorily? If not, you have something to do! Many cities and villages have worked out this problem. Investigate!

Streets—It is not the main street alone that should be kept in good condition: it is especially important that alleys and back streets be given attention. A dirty alley is a community danger point.

Water Supply—How many citizens know about the safety of their water supply—whether or not it is often examined for impurities? Pure water is absolutely essential for community health.

Milk Supply—Milk is an indispensable food for children. They must have it. Therefore, it must be a safe food; it must be clean and free from disease germs. Is the milk your community uses safe? It surely is not, if you cannot answer the following questions by “yes:”

1. Is the milk produced under good conditions—clean barns, clean cows, clean utensils, clean milkers?
2. Are the cows tested regularly for tuberculosis?
3. Is the milk put into perfectly clean utensils, kept cool, and protected from dust and contamination until delivered to the consumer?

Which is worth more to you—clean, pure milk that will enable your children to grow into strong, healthy men and women, or dirty contaminated milk that is a constant source of danger? There is no comparison, is there? Then be willing to pay the price necessary to produce clean, wholesome milk. After all, pure milk is one of the cheapest foods that can be used.

Remember too, that careful handling of milk must be carried into the home. *Keep it cool, keep it clean.*

The Troublesome Fly—“Statistics have been gathered from physicians and scientists; reports, statements and figures have been tabulated from Boards of Health. All of this testimony and information simply amplifies the fact that the fly is not only a disseminator of disease, but is one of the most troublesome and loathsome enemies of mankind; more to be feared than a mad dog or a snake in the grass or a wild animal roaming at will.

“It has been only within the last few years that the real danger of flies has been appreciated.

“The Fly does not convey the bacteria into the human system by biting, as the mosquito does, but carries the disease germs around with him on his body and clinging to the hairs of his feet.

“The Fly is insidious. He lurks in every corner. He plants his disease germs on your bread. He buries them in your butter. He drowns them in your baby’s milk bottle. There is no escape if he once enters your home.”

But—the fly is not to blame! You are the responsible one. You make it possible for him to live. **YOU ARE THE ONE WHO MUST DO SOMETHING ABOUT IT!** Guard against the fly—

Screen doors and windows.

“Swat the Fly” on all occasions.

Abolish all breeding places:

1. Do not allow garbage open to flies.
2. Do not allow dirty streets and alleys.
3. Do not allow manure piles open to flies.
4. *Do not allow human excreta open to flies.*

“Certainly one of the finest things that has developed all over the world out of this unspeakably cruel war is the splendid spirit of mutual helpfulness. The necessities of the struggle are teaching us all a new conception of the dependence of each upon the other and instilling into our brains and hearts a realization of the obligations to service that rest upon every citizen of the country.”

The economic loss sustained through sickness and inefficiency is a direct drain on our country’s resources. It therefore becomes our patriotic duty during this time of reconstruction of practically the whole world, to see that

neither our own health nor that of our neighbor is impaired. Ignorance, superstition and disease go hand in hand and our cooperation should be vigorously directed against their spread.

School Inspection—Neglect the school child and you sap the vitality of the future men and women.

Medical inspection of schools at least once a month is a modern necessity.

Medical supervision of school children is the only solution of the problem of diseases of childhood.

Systematic medical school inspection is growing in favor. In 1900, only eight cities in America had any organized health work in schools. In 1911, over 400 cities had an organized department for health supervision of school children. Much work is also being done in the rural school. Are you helping to carry on this work in your community?

Medical school inspection means the saving of eyes and of teeth, the control of contagion, attention to the nose and throat of the child, advice as to proper food and correct sitting and standing postures, and many other preventative measures.

"Three Stumbling Blocks"—Michigan Public Health. "There are three classes of parents in every community who block the best efforts of teachers and friends to secure the enforcement of just laws regarding communicable diseases: (1) Those who do not care what the law is, and who will not obey it except under compulsion; (2) those who are indifferent; (3) those who think that "Every man's house is his castle" and resent any attempt on the part of those in authority to secure the observance of any particular law. These classes must be dealt with with a rod of iron.

"It is certain, however, that the great mass of people welcome anything that helps them to prevent or lessen the effects of any disease.

"The parent, who wishes to aid the teacher in her well laid plans for teaching correct personal hygiene and habits conducive to the best interests of the individual, must see to it that the child goes to school with clean hands and face, clean clothes, and clean body, and must notify the teacher at once if the child is suffering from any contagious disease. He must keep the child within the quarantine of the home when dangerous to his fellow pupils."

Family Hygiene

The Sanitary Home

"One ill kept home will undo the work of several well kept ones and be a menace to more than the family occupying it."

Cleanliness—Soap and hot water are as good for the house as for the individual. Use them often.

Avoid too many furnishings! Bric-a-brac catches dirt! Washable curtains and rag rugs make it easy to keep the house clean.

When sweeping be careful about the cracks and corners. These are hiding places for disease germs and should be kept very clean.

Thorough dusting every day is not only for the eyes of your neighbors, but that the air you breathe may be kept cleaner. Dust must be taken away, not merely moved around. Do not wipe the dust with dry cloths or scatter it with feather dusters; use damp cloths or dustless dusters.

Things to keep sweet:

1. The milk can.
2. The dish cloth.
3. The kitchen sink.
4. Your temper.



Heating—Proper heating is a good investment. A fireplace is a splendid ventilator and a good social center. The installation of a good heating plant is conservation of the health and working energy of the family.

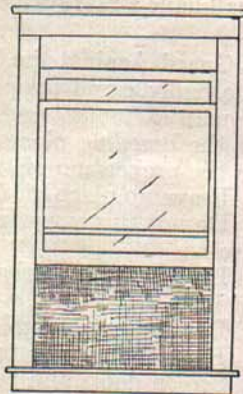
If a running water and sewage disposal system is installed, the central heating plant is almost necessary.

Ventilation—Do not allow your family to breathe unclean air.

Fresh, pure air is the kind we need.

It costs nothing to follow these simple rules:

1. Air the house thoroughly a few times each day by opening doors and windows.
2. Plan some way of letting fresh air into the living rooms. This is not an easy thing to do during Michigan winters, but thoughtfulness and common sense can accomplish it. Remember that fresh air is more easily heated than is stale air.
3. Sleep with windows open. If there is but one window in the bed room, it should be open from the bottom and top, even on cold nights. If the bed is near the window, you can protect the occupant from drafts by improvising a screen of some sort. Have plenty of bedding on cold nights.



As the windows go down, the death rate goes up.
A sleeping porch is a kind of life insurance.

Water Supply—Look well to your water supply.

If your well and roof are out of order, fix the well first.

“It is a self-evident fact that ground water is always pure, and pollution occurs from surface influences. Furthermore, water which is polluted by

human excreta is practically the only dangerous water. Given a ground water supply, well protected from seepage and from the entrance of filth from the surface, one need have no fear of resulting disease from its consumption. The problem of purity, then, lies in providing the proper protection."

If in doubt of your drinking water, communicate with the Bacteriology Department, Michigan Agricultural College, East Lansing, Michigan.

The Toilet—There is no excuse for the insanitary toilet.

If the outside toilet must be used, it should have a fly proof receptacle arranged so that the contents can be often disposed of, and it must be kept clean. A bulletin from the Iowa Agricultural College says: "The vault should be definitely abandoned for all time. In its place establish a metal receptacle, which should be disinfected by lime or dry earth directly after use. The metal receptacle should be emptied weekly during the warm weather and contents disinfected and buried."

Even in the most remote home a sanitary inside toilet can be installed at little expense. For information on this subject write to

Extension Department, Michigan Agricultural College, East Lansing, Michigan, or write for

Farmers' Bulletin No. 463, U. S. Department of Agriculture, Washington, D. C.

Public Health, Engineering Bulletin No. 5, State Board of Health, Lansing, Michigan.

U. S. Public Health Bulletin No. 37, Treasury Department, Washington, D. C.

"Rural sanitation must proceed from the home and the school and must be an every-day practice, not a theory. When such a condition exists, we shall have a real system of rural sanitation in the rural portions of Michigan."

Guard Against the Fly—"In farm houses, in small communities, and in the badly cared for portions of large cities typhoid germs are carried from human excrement to food by flies, and the proper supervision and treatment of the breeding places of the house fly become the most important element in the prevention of typhoid."

Leave no place for flies and mosquitoes to breed.

Do not throw waste water on the ground near the house. Provide proper drains.

Do not throw garbage on the ground. Plan some sanitary way to dispose of it.

Remove manure piles and keep pig pens and poultry houses clean.

Have the outside toilet fly proof.

Screen doors and windows.

Personal Hygiene

It is a great deal easier to keep well than to try to be cured, for health after all, depends mainly upon the observance of a few simple rules of personal hygiene—cleanliness, exercise in the fresh air, regularity of bodily functions, moderation in eating, drinking and sleeping.

If you want good health, study the care of your body and live up to the knowledge you acquire. Take as good care of your body as you do of your watch or automobile.

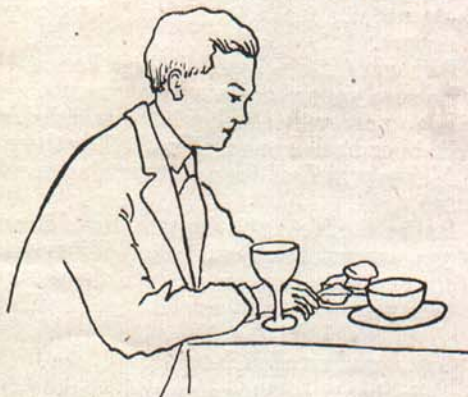
Drink Plenty of Water—War conditions have not put a tax on water; there is even no suggestion of curtailing the supply. Then why not drink plenty of it? You need at least eight glasses per day.

Choose Your Food Wisely—Many lives are wrecked by careless feeding beginning from babyhood. Foods do three things for our bodies—build tissue, furnish energy, and regulate bodily functions. Are you including in your diet, in correct proportion, foods which will answer these requirements? Learn to eat intelligently!

Study the suggestions given at the end of this chapter. If you wish further information regarding foods write to the Michigan Agricultural College or the U. S. Department of Agriculture at Washington, D. C., for literature. They will send you, free of charge, splendid bulletins on all subjects pertaining to foods.

✓ “Food prices are higher—then cut down a bit on your daily portion and grin when you discover how much better you feel.”

Take Time to Eat—In the great hub-bub and stir of life how many take time to eat? Deliberation should be cultivated in mastication, for in the mouth are glands that secrete the saliva which prepares the food for further digestion in the stomach. Time and active jaws are necessary to a full flow of saliva.



Clothing Should Keep the Body at its Even Normal Temperature—Do not wear clothing so light in weight that the body is not sufficiently protected, nor so heavy that the body is kept too warm.

Avoid clothing that restricts circulation, such as tight belts, shoes, gloves, or collars. Especially, avoid pressure on the neck.

Recreation is very Essential—but avoid pleasures which leave you unfit for the next day's work.

Air is Free as Ever—take your full share. One of the best ways to get your full share is to take some form of brisk exercise outdoors every day, and to sleep with windows open every night.

Take Good Care of the Teeth—Keep the teeth clean. Visit the dentist once or twice a year. Pus at the root of a tooth may cause rheumatism at the joints. If your knee pains, have your teeth and tonsils examined.

Be Sure your Eyes are all Right—Consult a specialist if you are at all in doubt.

Keep Clean—The fact that much impurity is deposited upon the skin through the sweat glands, as well as from outside, makes frequent cleansing baths necessary for comfort, self respect and good health. Bathing and brisk rubbing of the skin removes this deposit and stimulates circulation.

The warm bath, about body temperature, is the usual cleansing bath.

The cold bath is a tonic and a stimulant. It is most beneficial to the normal person, but should not be taken unless it leaves the body warm and comfortable.

The very hot bath should not be taken frequently, as it is very stimulating to the nervous system.

Do not bathe in a cold room.

Do not bathe just before or after a meal.

Do not take a warm bath just before going out into the cold.

A woman's hair is her "crown of glory." Frequent washing, at least once a month, is necessary to keep it in the best condition.

Feet are More Abused and Neglected than any other part of the body. Shoes are not made to fit feet, but the poor feet must bend and twist to fit the shoes.

Buy comfortable, well-fitting shoes.

Be sure your shoes are long enough.

High narrow heels should be avoided, especially for walking.

Rubber heels are excellent. Try them!

A shoe which slides and twists on the foot is just as harmful as one which is too tight.

Bathe the feet each day and have clean stockings each morning if possible. If you cannot have enough stockings to change so often, wash them out at night and put them on again in the morning.

One visit to a reliable chiropodist will teach you many things.

Tired and swollen feet:

Bathe with hot water and soap.

Follow with cold water and salt bath.

Rub with witch hazel.

Change of shoes will also give great relief.

Fallen arch.

Let your doctor decide whether or not you have a fallen arch. Do not wear any device without your doctor's order.

Regular Habits—A regular daily movement of the bowels is absolutely necessary for health. Drinking plenty of water and eating proper foods help to keep normal this important bodily function. Colds are frequently the result of constipation and a wrong diet.

An Early Visit From a Doctor may prevent a dozen. Periodical physical examination by your doctor may lead to the discovery of an insidious organic disease, which could be helped before it is too late. A regular family doctor gives you better service, as he knows the patient in health and in disease.

Do not Forget your Relation to Society.

1. Protect yourself.
 - Keep away from persons who are coughing and sneezing.
 - Wash your hands before eating.
 - Do not put into your mouth articles which other persons have handled.
 - Do not use another person's handkerchief.
 - Avoid the public towel and drinking cup.
 - Obeys the quarantine laws.
2. Protect society.
 - Protect people from your bodily discharges.
 - "Cover up each cough or sneeze."
 - Wash your hands before preparing food.
 - Keep away from people when you are sick. This applies to an ordinary cold.
 - Obeys public health regulations.

Cultivate Cheerfulness—"A merry heart doeth good, like medicine."

Don't Allow Yourself to Slump in Body or Mind.

***CHOOSE YOUR FOOD WISELY**

STUDY THESE FIVE FOOD GROUPS

Every food you eat may be put into one of these groups. Each group serves a special purpose in nourishing your body. You should choose some food from each group daily.

1. VEGETABLES AND FRUITS.
2. MILK, EGGS, FISH, MEAT, CHEESE, BEANS, PEAS, PEANUTS.
3. CEREALS—CORN MEAL, OATMEAL, RICE, BREAD, ETC.
4. SUGAR, SIRUPS, JELLY, HONEY, ETC.
5. FATS—BUTTER, MARGARINE, COTTONSEED OIL, OLIVE OIL, DRIPPINGS, SUET.

You can exchange one food for another *in the same group*. For example, oatmeal may be used instead of wheat, and eggs, or sometimes beans, instead of meat; but oatmeal cannot be used instead of milk. Use both oatmeal and milk.

*United States Food Leaflet No. 4.

YOU NEED SOME FOOD FROM EACH GROUP EVERY DAY—
DON'T SKIP ANY.

Here are the Reasons Why You Need the Five Groups.

Fruits and Vegetables, being rich in mineral salts, furnish some of the material from which the body is made and keep its many parts working smoothly. They help prevent constipation which gives you headaches and makes you stupid. The kinds you choose depend upon the season, but remember that the cheaper ones are often as valuable as the more expensive. *Eat plenty of vegetables.*

Milk, Eggs, Fish, Meat, Peas, Beans—These help build up the growing body and renew used-up parts. That is their main business. Dried peas and beans make good dishes to use in place of meat part of the time, but don't leave out the other foods entirely. Milk is the most important. Buy at least a pint a day for every member of your family. No other food can take its place for children. Save on meat if you must, but don't skimp on milk.

Cereals—Bread and breakfast foods. These foods act as fuel to let you do your work, much as the gasoline burning in an automobile engine makes the car go. This you can think of as their chief business. And they are usually your cheapest fuel. Besides, they give your body some building material.

Sugar and Sirups are fuel, too, and they give flavor to other foods. They are valuable food, but many people eat more of them than they need. Sweet fruits, of course, contain much sugar and are better for the children than candy.

Fat is Fuel—Some is needed, especially by hard-working people. Remember that expensive fats are no better fuel than cheap ones. Use drippings. Don't let your butcher keep the trimmings from your meat. They belong to you. Children need some butter fat. Give it to them in plenty of whole milk or in butter.

REMEMBER THE FIVE GROUPS!

CARE

"A very simple and trifling ailment may develop into a more serious one through lack of proper care. In most cases of illness, rest in bed is an important part of the measures used to win back health. On the proper care and management of the room, bed, and general surroundings, the comfort and welfare of the sick one largely depend. Hence it is important for every girl and woman to know something about how to manage the sick room and the surroundings, so that the sick one will have a good chance to get well as soon as possible."

THE SICK ROOM

In justice to the rest of the family every sick person should be kept in a room by himself. This should be done even if the illness seems to be nothing more than a severe cold, for many contagious diseases begin with the symptoms of a cold.

It is well to have one room in the house so furnished that it can easily be converted into a sanitary "sick room" if the necessity arises. Such a room should contain no carpets, and the furniture should be washable. If possible, the room should be sunny, quiet, and conveniently located.

Always select a room that can be kept warm (65° to 68°) and at the same time have plenty of fresh air. An open fireplace or stove in a room is excellent if plenty of fresh air is admitted. One of the great difficulties in caring for the sick in the country in the winter is the matter of a properly heated and ventilated room. Special care must be given to ventilation. The patient can be protected from drafts with screens. These can be made from clothes bars covered with sheets if nothing better is at hand.

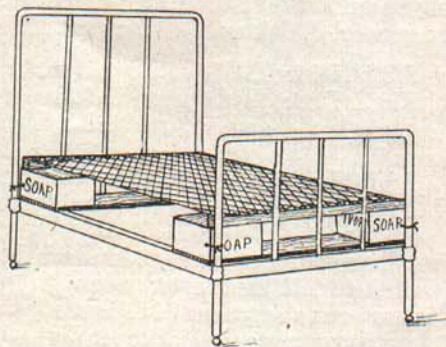
If the illness promises to be of long duration, it will pay to furnish the room as simply and conveniently as possible.

No pictures, draperies, or curtains or any article that would hold dust should be allowed.

There should be a comfortable bed: it is much easier for the nurse to handle a patient in a single bed than in a double one. The bed should be raised so as to be comfortable for the nurse; it should measure about twenty-six inches from the floor to the top of the mattress. One of the most satisfactory methods of raising a bed is shown in the illustration. This method has the great advantage of being able to move the bed.

If it is not convenient to raise the bed in this way, blocks of wood or bricks can be put under each leg.

Be sure your bed is very secure so that the patient may have no fear of a fall.



Carelessly made beds cause sick people much unnecessary discomfort. Learn to make a bed properly.

1. A good mattress is a necessity. A cotton mattress, properly made, will be more satisfactory than a cheap one. It keeps clean longer and keeps its shape better, and is much more comfortable.
2. See that the mattress cover (there should always be one) has no uncomfortable tufts or creases, and is made of material that does not wrinkle easily. The sheets should be long enough to tuck in well at both the bottom and top of the bed ($2\frac{3}{4}$ yards is not too long); sheets of a good firm quality make a much more comfortable bed, as they wrinkle less easily.
3. If the patient is very sick, an oil cloth should be put over the mattress cover and the lower sheet well tucked in. Then put on a draw sheet made of a sheet doubled and put tightly across the middle of the bed. The upper sheet, blankets and a light washable bed spread are then added; a sheet makes a good spread in case of illness. None of the upper covers should be so tightly tucked in as to make the patient feel hampered.
4. Have several sizes of pillows so that the patient can be rested by having different parts supported by the placing of a pillow.

The sick room should contain a table placed away from the bed for the use of the nurse; a small table near the bed; one straight chair and two comfortable chairs, one for the nurse and the other for the patient when able to sit up. All furniture should be washable.

A cot for the nurse is a necessity if one nurse is taking care of the patient. The appliances necessary are a bed pan, wash bowl, slop jar and pitcher. Have a back rest if possible.

Doctors' orders should always be written and kept on file or recorded on the patient's chart, where record of temperature, pulse and respiration should be placed.

Be very careful in giving medicines; be sure you give the right dose at the right time; have all medicines plainly marked. Report carefully to anyone who is to relieve you.

Diet

Great care should be given to the diet of a patient and the directions of the physician should be followed carefully.

The general divisions of diet are as follows:

Milk Diet: Milk only is given.

Fluid Diet: This may include broths, egg nog, gruel, tea, cocoa, coffee, malted milk, egg lemonade, buttermilk, fruit juice.

Light Diet: Toast, cereal and cream, eggs, soup, jelly, rice.

Full Diet: Any well cooked food that is easily digested.

Not all foods mentioned under each heading will agree with all patients, so it is best to talk the matter over with the doctor and follow his suggestions.

It is even more important in disease than in health that the bowels should be well cleaned out every day. Proper diet will help to accomplish this.

The Bath

A bath properly given has never hurt any patient. Cleanliness is a distinct aid to comfort and recovery.

The Cleansing Bath—"Do not try to bathe your patient in a china bowl. The water becomes soapy and cold too quickly. If you cannot have a tin foot tub, use a new dish pan. One can usually be bought at the ten cent store, not very good tin to be sure, but good enough for your purpose. You can have a quantity of hot water. The tin tub or pan with handles is easier to carry.

"When it is time for your patient's bath (which should be given every morning, not sooner than one hour after she has had her breakfast), carry everything you will need to her room, with the exception of the hot water, before getting your patient ready. A tray or common market basket will save many steps. In the market basket have three towels, a soft one for the face and ears, and two bath towels, two wash cloths, a face towel, a piece of soap (Ivory is better than cheap scented kinds), a whisk broom for brushing the sheets, a tin of talcum powder, comb and brush, scissors and a nail file. Place a table or chair near the bed to hold your bath pan; get clean sheets and pillow cases if they are needed, and a fresh night dress; put these to air. Then get the patient ready.

"Roll a blanket; begin at the edge and roll toward the center with the roll going lengthwise of the blanket; roll until half of the blanket is left, then with your patient on her side, lay the roll tightly along her back. Turn the patient on her other side and this will bring her over on the blanket. Then unroll the blanket and cover the patient. With your patient on her back and well covered, remove the night dress. Pull it up from the bottom, lifting the knees and bringing the feet near the body; the patient can help herself by pressing on her heels. Work the night dress up until you have the hem under her neck; then pull it off over her head, one sleeve at a time, covering with the blanket as you uncover with the night dress. Leave your patient tucked snugly in the blanket while you go for the hot water.

"Start with a small amount of warm water for face and ears, then add a little from time to time from a pail or pitcher of hot water which you brought in with the tub. Bathe a small space and dry well before bathing more; an arm at a time, then the chest, abdomen, back, and legs. Dry carefully. When you come to the feet, have the water warm and plenty of it. Put the bath pan on the bed so the patient may be able to put her feet in it.

"Wipe dry between the toes and, if needed, cut the nails and file sharp edges. Dust with talcum powder under the arms, between the thighs and toes, and under the knees. It is also refreshing to have an alcohol or witch hazel rub, but if there is not time, leave this until the patient is prepared for the night.

"After the bath is finished, turn your patient to one side. If the sheets need to be changed, do it at this time. Roll the soiled sheets close to the patient, then roll the clean ones and put in place as you did the bath blanket when you began the bath. Turn your patient and you have her lying on the clean sheets with the soiled ones behind her. These can easily be removed and the fresh ones tucked in. Always be careful to get the sheet where it must stay; enough to tuck in at the top and not too much at either side. Lay a blanket over your patient, then remove the bath blanket and put on a clean night gown. This does not leave your patient uncovered or exposed to cold at any time. Then over this blanket spread a sheet and another blanket, and pull out the blanket next the patient, which can be put on top. Finish making the bed, making everything on top look straight and trim. Take an artistic pride in making the bed look well.

"If the patient is very ill, and cannot be turned, place a bath towel or small blanket under the parts to be bathed and with another blanket over her, bathe carefully. (Do not wet the bed or night clothes; never leave wet spots on the sheets or night gown.) Dry the creases well and use powder. Dry by laying a towel over the patient and patting gently; do not rub the towel on the patient, in that way irritating tender skin.

"After the patient is comfortable and tidy, remove the things you used for the bath. If the sheets are not soiled, hang them out in the sun and wind; then fold them nicely and they can be put back the next day and will feel fresh and sweet. It is more comforting to your patient to change the sheets this way than to leave them on until they are actually soiled. Wash the wash cloths and dry out of doors, also dry the bath blanket if it is damp; and if you must be careful about the amount of linen you use, wash the towels, also, snap out the wrinkles, and hang out of doors. These need not be ironed. When perfectly dry, fold and put in your basket for use next day. Use one night dress for day time, and another at night. Save the dainty nightie with the pink bow until after the bath. Part the 'sick-a-bed' lady's hair in the middle from her forehead to the nape of her neck and braid back

of each ear. Don't let the braids be lumpy or hard next to the head, as they are uncomfortable to lie upon. Let her hair be soft and loose around her face."
—Campbell's "Book of Home Nursing."

The temperature of the water for the cleansing bath should be 90° to 95°.

Bath to Reduce the Temperature—Take temperature, pulse and respiration; record. Remove night clothing. Place patient between thin blankets as for the cleansing bath. Put cold on the head, and hot water bottle to the feet.

Have large basin of water and soft wash cloth. Begin at the face, sponging each part until it feels cool—do not dry but let the skin absorb as much water as possible, and let the drying take place by evaporation.

Sponge the skin for several moments. The whole bath should take about one-half hour.

Again take temperature, pulse, and respiration, and record.

The temperature of the water should be about 60° or 65°.

Foot Bath—Take temperature, pulse, and respiration; record. Place the tub in bed on oil cloth covered with an old blanket. Use tub or good sized dish pan. Have about one-third full of water; place feet in tub and cover as high as the knees with bath towels. Add warm water from time to time being sure to put your hand between feet and water. Continue fifteen or twenty minutes; remove tub and dry thoroughly. Cover the feet well. It is best to have a cold cloth applied to the head of the patient during this bath.

Again take temperature, pulse, and respiration, and record.

The temperature of the water should be about 90° or 95°.

There are several other kinds of baths for which your doctor will give you directions.

*Simple Directions for Prevention of Spread of Contagious Diseases.

There are a few facts in connection with contagious diseases that may be brought out here that will serve to explain some of the statements which will be made subsequently. It is now quite generally known that the contagious diseases are due to a growth in the body of a living microorganism and that this microorganism is a different one for every one of the diseases. For example, the organism which causes the sore throat of diphtheria can cause this form of disease only and no other; on the other hand, no other microorganism can cause diphtheria. These microorganisms do not get into the air to any extent unless they are dry and when dry they quickly die. Probably the germ causing consumption remains alive when dry longer than most others but even this organism cannot last for any great length of time in a dried condition. When a patient coughs or sneezes some germs may be sent out into the air in tiny droplets of fluid but these probably quickly settle to the floor or other parts of the room and are not breathed in except by those in attendance and this can be entirely avoided by a very simple method to be described later. Most diseases are transmitted only by direct or indirect contact or by means of water and food and rarely if ever through the medium of the air we breathe. If a patient ill with a contagious disease handles a toy, particularly if he puts it in his mouth and

*Prepared by O. M. Bruegel, M. D., Health Officer, East Lansing.

this same toy is soon after handled by a well child, the latter may get the disease. This is what is meant by indirect contact.

General Treatment in the Home—The treatment in the home varies somewhat according to the disease we are dealing with, but there are certain general principles that it may be well to observe.

When a person is taken sick it is best to isolate him from the other members of the household until it is known what the disease is, for in this way, if he has a contagious disease, the other members of the family are not being exposed and may avoid infection.

Care should be exercised to prevent any of the secretions from the nose and mouth as well as from the kidneys and bowels from soiling the clothing and bedding and then drying. The nose may be cleaned with small pieces of cloth, soft paper napkins, or toilet paper, which when soiled should be placed in paper bags or cones made of newspaper and then burned once or twice daily. If the bedding becomes soiled remove it and replace with clean. Special treatment for the stools and urine and soiled bedding will be described later.

Dishes after use should be scalded with boiling water. Take to the patient only the amount of food you think he will eat so as not to have any left over. If some is left, burn it.

Special Treatment in Cases of Certain Contagious Diseases.

Scarlet Fever.

Strict isolation of the infected person should be carried out.

Sick Room—A warm, well-ventilated room is selected and all unnecessary furniture removed. A room without a carpet is best for it is easy to wipe up a bare floor with a damp cloth or mop and not raise dust, and impossible to do so with a carpet on the floor. A few small rugs are permissible. Toilet articles as tooth brush, comb, etc., should be selected with a view to their being boiled in water or final destruction by burning; therefore as few as possible should be taken into the room. Extra linen, etc., should be taken in as needed. A bundle of newspapers will come in handy.

Care of Food and Dishes—Food should be brought to the room on a tray by some member of the household, other than the attendant. The attendant removes the dishes from the tray. Only as much food as will be used up should be brought in; it is easy to bring more if necessary. The soiled dishes are placed in a dish pan outside the door to be disinfected by covering with *boiling* water or boiling in water, and then cleansed. Food which has not been eaten and which it is desired to save may be kept in the room or in a box just outside of the window.

Discharges—The urine and stools are best disinfected by pouring over them a teakettle full of *boiling* water. After allowing them to stand for fifteen minutes or more they should be emptied into the toilet, a hole in the ground, or in the privy and covered with lime and ashes. This is particularly important when there are flies which might carry infected material to the food eaten by other members of the household. As an added precaution the urine and stools may be received into a solution of Javelle water or chloride of lime in the proportion of four ounces to a gallon, a supply of which may be kept on hand in an earthen crock; when the stool is thoroughly broken up and mixed with the solution, pour over it boiling water as directed above.

Secretions from the nose, mouth, and ears should be collected on small pieces of cloth or paper and put in paper bags or cones made out of paper and the whole burned. Do not allow the pieces to collect until the discharges become dry.

Suggestions to Attendant to Avoid Contagion—The attendant should at all times be careful to avoid infecting herself. To this end she should frequently wash her hands in hot water and soap and at all times refrain from putting her hands to her

face, particularly the mouth. She should wear a long sleeved apron which completely covers the dress. All clothing worn in the sick room must be washable. Antiseptics for the hands and face are impracticable and of doubtful value because they are apt to injure the skin and cause chapping and cracking, rendering the skin liable to infection. Furthermore, if one depends on antiseptics one is liable to slight the vastly more important mechanical cleanliness.

Some arrangements must be made so that the attendant may get out into the fresh air every day in order to preserve her own health. The simplest and easiest way to make this possible is to choose a room which has an outside door, so that the attendant may go back and forth. If this is impossible, consult your doctor so that the attendant may get out doors without causing danger to other members of the household.

Of course, whenever the attendant goes out she will put on a clean apron which will be kept just outside the sick room.

If possible, the attendant should have an adjoining room where she can sleep and rest.

When the attendant is to leave temporarily or permanently (other than her daily outing) she should remove her clothes, take a bath in soap and water and put on clean clothes before going out. She should then keep away from people who have not had the disease for a period of two weeks, for she might come down with the disease herself during that time. She is very unlikely to transmit the disease through her clothing.

Disinfection of Linen and Clothing—Linen and clothing that can be boiled should be placed in a boiler by the attendant while some other member of the household may cover the clothes with water and boil with the cover on. After boiling for fifteen minutes they may be removed and cleansed in the usual way. Articles which may not be boiled should be soaked for an hour in a solution of corrosive sublimate in the proportion of a dram to a gallon which is approximately a 1 to 1000 solution. Tablets may be obtained containing the proper amount to make a 1 to 1000 solution when dissolved in a pint of water. **CORROSIVE SUBLIMATE IS VERY POISONOUS AND SHOULD BE HANDLED WITH CAUTION.** Never allow a solution or the drug to be in the house without being marked poison in a conspicuous manner.

One may use carbolic acid in a five per cent solution—six and one-half ounces to a gallon of water. (Caution: always mix with hot water or the carbolic acid may not dissolve thoroughly.) The clothing may then be rinsed and washed in the usual way.

Disinfection at End of Illness—After recovery the patient should be given a bath with soap and water and dressed with clean clothes. He should keep away from school and other children for another week. The danger here is not from the clothing and the skin, but from the secretions from the nose, throat, and ears. If this fact is borne in mind infection of others may be avoided.

Everything that can be disinfected by boiling or soaking in any antiseptic solution should be removed and so treated. The bedding should be hung out in the wind and sun for two or three days; the mattress should be placed in the sun and turned over a number of times. The furniture and walls as high as one can reach should be wiped with a cloth soaked in corrosive sublimate solution 1-1000 and the floor finally mopped with the same solution.

Many articles which one does not want to destroy and still cannot be treated by one of the above methods may be baked in the oven for one hour at a temperature a little below that which will scorch paper. Books and toys may be disinfected in this manner, but it is better to destroy them.

Measles.

Isolate the patient as for scarlet fever. The attendant may wear an apron while caring for the patient and then remove the apron and wash the hands thoroughly in soap and water after which she may go about the house and attend to her usual duties. Dishes from which the patient eats should be handled as for scarlet fever as should also the soiled linen, secretions from the nose and throat, etc. After recovery the patient should bathe and dress in clean clothes. The bedding, hangings, etc., are hung out doors for a few hours. The windows are opened and left open for twenty-four hours. Further *disinfection* is unnecessary.

German Measles.

This is a very mild eruptive disease but patients should be isolated until all symptoms have disappeared. No final disinfection is necessary. The danger here is in mistaking scarlet fever for German measles. It is frequently difficult to decide whether we are dealing with a more severe form of German measles or a mild form of scarlet fever. In cases of doubt one should treat it as though it were scarlet fever until it is known to be otherwise.

Small pox.

The patient should be isolated as for scarlet fever. The attendant and all those exposed to the disease should be vaccinated immediately whether they have ever been vaccinated before or not. If one is susceptible to small pox, vaccination will work and if it does work it is a sign that it was needed. If it does not work it will cause no disability at all. When those who have been exposed refuse to be vaccinated they must be isolated for fifteen days and then if showing no sign of illness they may be allowed their liberty. The patient should be isolated until all scabs have been removed and the skin is clean. In order to prevent the scabs from drying and falling onto the floor to be powdered and raised with the dust it is well to keep the drying scabs greased with vaseline, lard or other ointment. A daily bath of warm water and soap will help to remove the scabs. The patient should be thoroughly sponged off, including the hair, with a solution of corrosive sublimate 1 to 2,000.

Chicken pox.

This is usually a mild infection with an eruption similar to that of small pox and may easily be confused with the latter disease. For this reason one should always consult a physician or experienced health officer to make a diagnosis. Until it is known that the disease in question is chicken pox it should be dealt with as though it were small pox. When it is known that the disease is chicken pox all those who are not coming in contact with the patient may be allowed their liberty and all children who have had the disease may be allowed to go with other children. Those who have not had the disease should be kept for fifteen days away from children and young adults who have not had the disease.

Diphtheria.

Isolate as for scarlet fever, taking the same precaution. Exposed persons should be kept under observation for ten days and if no sore throat or membrane develops they should be allowed their liberty. If a swab, which has been rubbed over the throat of an exposed person, is examined by a competent bacteriologist and is found to be free from diphtheria germs he should be allowed his liberty. If germs are found, isolate the person until no germs can be found. Anti-toxin should be given as a curative agent and not with the idea of preventing the spread of the disease; therefore it should not be given to those who have been exposed to the disease until they develop some symptoms of the disease. An exception may be made in the case of very young children for in these little patients fatal symptoms frequently develop very rapidly.

The diseased person should be kept in isolation until no germs can be found in the throat on two or three successive days. If it is not convenient to make swabs the person should be continued in isolation for ten days or two weeks after all symptoms have disappeared. Strong antiseptic gargles and washes should not be used as they are apt to destroy the normal protecting bacteria of the mouth and allow the diphtheria germ to grow unmolested in little protected pockets in the tonsils, etc.

The germ of diphtheria has been known to live outside of the body on clothing, bedding, etc., for nearly six weeks, therefore disinfection of the room and contents should be carefully done as for scarlet fever.

This disease is very frequently transmitted from persons who have the germ in the throat but who show very mild symptoms or even no symptoms at all. Therefore during the prevalence of diphtheria every sore throat should be looked upon with suspicion as a possible case of diphtheria and watched very closely.

Mumps.

This disease is probably transmitted by direct contact only, but is rather sudden in onset; therefore children from the same household who have not had the disease should be kept from school for a period of three weeks. Those who have

had the disease should be allowed to go to school. The patient should be isolated until all symptoms have disappeared. No disinfection of room and contents is necessary.

Whooping cough.

Isolate the patient from children who have not had the disease until the cough has ceased or for about six weeks. When the disease begins in the fall or early winter it is apt to continue all winter but is probably not infectious after six weeks. Children who are living in the same household and have not had the disease should not be permitted to attend school. If the patient is well isolated and the exposed children have not shown any symptoms after three weeks they may attend school. No fumigation or disinfection is necessary.

Typhoid fever.

The patient should be isolated but not so strictly as with scarlet fever. The dishes should be carefully disinfected as described above and it is of the greatest importance to care for the excreta since both the urine and stools contain large numbers of the typhoid germs. As typhoid fever is usually prevalent when flies are thickest it is very important in the first place to keep the patient's room free from flies and also to keep the excreta covered with lime and ashes so that flies cannot get at them for flies are certainly one of the most important factors in spreading the disease.

When a child or an adult is taken sick with a fever and continues sick for several days and no symptoms of any other disease are developed it should be considered typhoid and treated as such until recovery takes place or until it is shown to be other than typhoid.

Whenever a case of typhoid fever develops in a household the water supply should be placed under suspicion and the water should be boiled for drinking and culinary use until it is shown to be free from contamination by a competent bacteriologist.

Any person who has been sick with a contagious disease or has been exposed to a contagious disease should not be permitted to milk cows, handle milk or any of the food which is eaten by other members of the household.

Milk should not be taken from the premises unless it is handled by someone who does not come in contact with the sick and only provided it is handled outside of the house which is occupied by the sick. Many outbreaks of typhoid fever have been brought about by carelessness in this respect.

Cuts—Small wounds or cuts are often dangerous. They should be thoroughly cleaned with clean water, painted with iodine and protected by a clean dressing.

Colds—"The best way to treat a cold is to prevent it."

- Keep in good physical condition.
- Breathe plenty of fresh air.
- Do not keep the house too warm.
- Keep away from people who have colds.

Colds are contagious.

They are spread by the discharges from the nose and mouth. Take care of these discharges. Do not use other people's handkerchiefs or let them use yours. Cover the face when coughing or sneezing.

Home treatment of colds.

What may be done before the doctor comes:

1. Stay in bed.
2. Drink plenty of water.
3. Eat moderately.
4. Take a mild laxative.

Sore Throat—Dissolve one teaspoonful of salt and one teaspoonful of soda in one pint of hot water and gargle every hour. Sore throat with fever should receive the prompt attention of your physician for many infectious diseases begin with the symptoms of a cold.

Tuberculosis—TUBERCULOSIS IS CURABLE IN EVERY CLIMATE. Not climate but the control of daily habits affects the cure.

"The first essential for treatment is *rest* until the disease has ceased progressing. The physician must determine when exercise should be resumed.

"The second is *food in abundance* until the lost weight has been regained, and a little more.

"The third is *fresh air*, indoors and out, but most of the time *out* in all seasons and weathers.

"The fourth is *hope and determination*. Your chances for recovery will largely depend on your attitude of mind and willingness to make a determined effort to recover. Make your sacrifices at the beginning."

—Michigan Public Health.

The earlier tuberculosis is detected in an individual case, the greater are the possibilities for a cure. If you have the slightest reason to suspect that you may be tubercular, be examined at once. Free clinics for such examinations are being established in many counties.

A properly managed sanatorium near the patient's home is ideal for the treatment of tuberculosis. If you are tubercular, investigate the possibilities of attending a sanatorium in your own or neighboring county. It will not be expensive.

For detailed information regarding care and treatment of Tuberculosis, write to Michigan State Board of Health, Lansing, and Michigan Anti-Tuberculosis Association, Ann Arbor, Michigan.

Disinfectants—A disinfectant is an agent that destroys disease germs.

Sunshine and fresh air are good disinfectants.

Heat, either dry or moist, is an effectual disinfectant.

BOILING WATER is one of the best disinfectants.

One of the oldest and best general disinfectants is quick lime mixed with water to the consistency of cream.

Javelle water (sodium hydrochloride) is an excellent disinfectant and deodorizer.

To disinfect bed linen, towels and body linen, put at once in boiling water and boil 15 to 20 minutes. To disinfect discharges, stools, urine, use freely chloride of lime or BOILING water.

To disinfect hands, wash thoroughly with soap and water, running water if possible, and use a nail brush.

For privy vaults, use freely copperas, chloride of lime or unslaked lime, fine earth, dust or ashes.

Fumigation to be effectual should be done by some person who is not only experienced in handling the materials but who understands the method. As ordinarily done in most households, it is a waste of time and material.

Directions for making Javelle water (sodium hydrochloride).

Fill a four gallon crock two-thirds full of water. Dissolve in the water four pounds of salsoda crystals or half as much dry salsoda powder. Next stir in well a one pound can of chloride of lime. Let stand for a day or two.

The white precipitate which forms is of no value. The clear solution above the precipitate can be dipped off and placed in glass bottles.

This solution can be used for a variety of purposes—disinfectant, deodorizer, and to remove ink spots and stains from uncolored linens and cottons. It is non-poisonous.

To use Javelle water for removing stains, stretch the stained article and rub the solution into it. Rinse in clear water. Apply oxalic acid solution, and rinse again.

Emergencies—In every emergency call the doctor at once. The most common emergencies are as follows:

Broken bones: Do not move the patient if possible until the doctor arrives. If you do have to move the patient, be sure the broken bone is well supported so it will not puncture the flesh.

Burns: Put the patient to bed. Cover burn with soft cloth wet with normal salt solution—one teaspoonful salt to one pint of water—keep moist by dripping water on cloth.

Fainting: Place patient in reclining position with head low. Apply cold to head and heat to feet. Do not try to give any liquid until patient recovers semi-consciousness.

Convulsions: About the same treatment as fainting.

Wounds: Stop bleeding by applying clean gauze or cotton. It may be necessary to put a compress between the wound and the heart, but this should continue for half an hour only.

Poisons: Give milk or white of egg. After a minute or two, in order to induce vomiting, give two to four glasses of tepid water, salt solution, or weak mustard water.

Medicine Closet—“Health is not put up in bottles and cannot be purchased at drug stores, no matter what the labels on the bottles may read.”

Keep all your medical supplies together. Every well regulated household should have a medicine closet, large enough to hold all the medicines and nursing appliances. *Have labels on all bottles and boxes. Do not keep poisons with medicines.*

It should be well lighted to insure getting the right remedy and should have a good fastening out of reach of small children.

Some medicines deteriorate. Be sure pills and powders are fresh. Give prescriptions only to the person for whom they are prescribed.



Suggested List of Supplies for the Medicine Closet

- No patent medicines.
 A hot water bag (if you must be economical do not get the hot water bag, but use a Mason fruit jar that will seal tightly).
 Absorbent cotton—2 one-ounce packages. (Keep one unbroken for emergency).
 Vaseline—2 five-cent tubes or bottles. (Keep one unbroken for emergency).
 Aromatic spirits of ammonia—3 ounces. (This is now used for a stimulant in place of whiskey or brandy).
 Seidlitz powders (cathartic), $\frac{1}{2}$ dozen.
 Castor oil.
 Jamaica ginger, 3 ounces.
 Essence of peppermint, 3 ounces.
 Boracic acid, $\frac{1}{2}$ pound.
 Sweet oil, 4 ounces.
 Tn. of Iodine, 2 ounces in glass stoppered bottle.
 Camphor, 2 ounces.
 Turpentine, 1 pint.
 Old muslin kept in closed box.
 Safety pins.
 Medicine dropper.

Normal salt solution

- 1 pint boiling water
 1 teaspoon salt
 Put in clean bottles, cork lightly.
 Put bottle of solution into warm water, bring to boil and boil five minutes. Cork tightly.

Boracic acid solution

- 1 pint boiling water
 As much boric acid powder as will dissolve. Keep in clean bottles or jars.

Approximate Measures

- 1 ordinary drinking glass holds 8 ounces or $\frac{1}{2}$ pint.
 6 teaspoonfuls equal 1 ounce.
 2 tablespoonfuls equal one ounce.
 2 teaspoonfuls equal 1 dessertspoonful.
 60 drops equal 1 teaspoonful (of most drugs).
 1 teaspoonful equals 1 dram.

CHILDREN

There is a Jewish saying that God could not be everywhere and therefore made Mothers. Do Mothers all realize their responsibilities?

The Baby

"The most dangerous occupation in the world is that of being a baby," said Dr. Jacob Sobel, Chief of the Division of Baby Welfare, Department of Board of Health, New York. "Few hazards can compare with it. He has less chance to live a week than a man of 90; is less likely to live a year than a man of 80; has less probability of surviving his first year than an aviator, making ascensions daily for a year, has to be alive at the end of that period. It is therefore necessary to forge about him every possible effort for the conservation of his health and life."

Prenatal Care—"Give me intelligent motherhood and good prenatal conditions, and I have no doubt of the future of this or any other nation."—John Burns.

Everything that protects the mother before her baby is born improves the health of the baby after its birth.

Prenatal care is most important for the health of mother and baby. Consult the family doctor early in pregnancy; be sure that a frequent examination of urine is made.

Have your doctor or nurse recommend some good book for you to read. A very good book on Prenatal Care, which will be sent you free upon request, is:

"Prenatal Care" by Mrs. Max West, Children's Bureau, U. S. Dept. of Labor, Washington, D. C.

Standards—Every well child of any age should:

1. Show progressive development of body and mind.
2. Gain constantly in weight, and have solid flesh and well-shaped bones.
3. Have the proper amount of restful sleep.
4. Cry but little.
5. Have a good appetite.
6. Have well-regulated bowels.
7. Have no vomiting or gas.
8. Have a clear skin and good color.

If the baby does not come up to this standard, we may know that something is wrong, and we must set ourselves to the task of finding out what that thing is. It is much easier to prevent an illness than it is to cure one. The average weight and measurement of a baby as established by the Better Babies' Bureau of the Woman's Home Companion is as follows:

*"The Healthy Baby," Roger H. Dennett.—MacMillan Co.



SUNNY JIM. Aged five months.

<i>Age in months</i>	<i>Height</i>	<i>Weight</i>
Birth	18 inches	7 lbs.
6 months	26½ in.	17½ lbs.
8 months	27¾ in.	19 3-16 lbs.
12 months	27½ in.	22 lbs.
18 months	31½ in.	23¾ lbs.
24 months	33½ in.	27½ lbs.
36 months	37 in.	33½ lbs.
48 months	40 in.	38 lbs.
56 months	42½ in.	43 lbs.

Jan, 1919

Feeding the Baby—*Breast feeding is the normal, therefore the best for the baby.* The most loving act a mother can do is to nurse her baby; it protects him from disease. Out of every 100 breast fed babies only 7 die; out of every 100 bottle fed babies 30 die.

In one Michigan city fifty babies were found to be 100% babies. Of these fifty "perfect" babies, all but four were breast fed.

A bottle fed baby should be under the direction of a physician. He will probably give you the formula he wishes you to try. There is a growing tendency among physicians to avoid complicated formulas for well babies. Every sick baby, of course, presents an individual problem.

Suggestions that will Help Keep the Bottle Fed Baby Well—With a bottle fed baby the greatest attention must be given to the care of the milk, the utensils used in preparing the food, the bottles, etc. Absolute cleanliness

must be the watchword. There is always a chance of artificial food disagreeing with a baby; do not add to this risk by neglect or carelessness in preparing or caring for the food.

Care of the Milk:

To keep milk sweet.

1. Keep it clean.
 - a. Before pouring out the milk, wipe off the bottle with a clean damp cloth.
 - b. Pitchers, basins, crocks, and other utensils used for milk must be absolutely clean. Wash them in hot soapsuds and rinse well with clean *boiling* water.
2. Keep it as cold as possible.
 - a. Do not let it stand on the porch in the sun.
 - b. Do not let it stand in the kitchen.
 - c. Plan a cool place in which to keep it and *put it there at once*. Take the same care of condensed or evaporated milk. Keep it clean and cold. Do not give a baby milk from a can that has been opened more than two or three days. The milk deteriorates even if it does not sour. Buy the smallest can possible.

Utensils

All utensils for mixing the baby's food should be kept in a place by themselves and should not be used for any other purpose. These utensils are not many nor expensive, but having them is a safeguard to the baby and a convenience to the mother. Have—

As many nursing bottles as there are feedings in one day.

A nipple for each bottle.

A wire rack which will hold all the bottles.

A graduated measuring glass, divided into ounces and holding 16 ounces.

A two-quart pitcher, wide necked.

A funnel, which does not fit too tightly into the neck of the nursing bottle.

A long-handled spoon for stirring the food.

A tablespoon.

A new enamel or aluminum sauce pan for boiling the water or gruel.

A one-quart preserving jar to put the boiled water or gruel away in until it is cold.

Clean cotton, corks or paraffin paper for stopping the bottles after they have been filled.

The bottle and nipples:

"The one important requirement for a baby's bottle is that it must have no corners on the inside, being rounded both at the bottom and at the top where the neck begins. This shape of the inside of the bottle enables us to clean it thoroughly." The best bottles are those that are most easily cleaned.

The nipple must be neither too large nor too small. Too large a nipple may gag a baby and cause vomiting. The hole in the nipple must be neither too large nor too small. If the baby gets the food too fast, it may cause colic or indigestion or vomiting. The hole in the

nipple should be just large enough that when the filled bottle is held upside down the milk drops rapidly. If the milk runs in a stream, the baby will take his food too fast. It should take about 20 minutes to give a feeding.

Care of bottles and nipples.

New bottles should be placed in a dish pan of cold water, brought slowly to a boil and allowed to boil for 20 minutes. Allow them to stay in the water until it is cold. Bottles thus treated will not readily break when filled with boiling liquid. New nipples should be boiled five minutes before using.

Each bottle should be emptied as soon as the baby has finished nursing, then rinsed with cold water and left standing filled with water, boracic acid solution, or soda water. At a convenient time, scrub all the bottles with hot soapsuds, using the bottle brush over every part of the inside. Then rinse them thoroughly through several waters and put them in a kettle of water. Boil fifteen minutes.

Nipples need especial care. They should be thoroughly cleaned. As soon as the feeding is taken, the nipple should be filled with borax and washed well in water by being rubbed between the fingers and thumb. It is then placed in a cup of water containing one heaping teaspoonful of borax. Just before using rinse the nipple well in boiled water. Many physicians insist that the nipples should be boiled once a day.

Standard Formulas for Bottle Fed Babies—Two formulas which are being used at the present time by two of the leading hospitals in the country follow: They are illustrative of today's standard formulas for bottle fed babies. You will notice that they differ in certain particulars; they are alike however in that they use fresh whole milk and cane sugar.

A. *Formula given by Dr. Dennett in "The Healthy Baby."

"Milk sugar, which has been so extensively used in the past, should never be used where there is any digestive disturbance. It is not as easily digested as either cane sugar (ordinary table sugar) or malt sugar. The latter is the best of all the sugars, especially for young babies and for those with weak digestions. The malt sugar that I have always used is Mead's Dextri-Maltose. It is nothing less than marvelous to see a baby (as I have in innumerable cases), who has never done well when fed on other mixtures thrive and gain at once on the simple milk and water mixtures when Dextri-Maltose is used.

"Milk from one cow has its disadvantages, because if that cow eats something wrong or gets chased by a dog, or what not, the milk is made temporarily indigestible for the baby. On the other hand, the milk from the whole herd would be far less liable to such accidents, and it would be more uniform from day to day. I would, therefore, prefer milk from the herd, if the dairy is well conducted.

"The important considerations in deciding upon a well baby's food are three-fold: the amount of milk, the amount of water, and the amount of sugar to be used to make up the proper bulk and concentration. The quantities of these ingredients depend upon the baby's weight and age. The amount of actual cow's milk a given baby needs in twenty-four hours to sustain life and make a proper gain in weight is twice the number

*By courtesy of the author and publisher of "The Healthy Baby," by Roger H. Dennett—Mac-Millan Co.

of ounces of milk as he weighs in pounds, provided he can digest one and one-half ounces of sugar in his total daily quantity of food.

"The table following gives an approximate scheme for feeding babies of different weights and ages. It is not intended for babies with digestive disturbances, nor will it invariably suit every well baby."

TABULATED SCHEME FOR FEEDING

(Dr. Dennett)

Age.	Weight stripped.	Milk.	Water.	Sugar.	Total quantity in 24 hours.	Amount at each feeding.	Intervals between feedings.	Number feedings in 24 hours.
	lbs.	oz.	oz.	oz.	oz.	oz.	hrs.	
3d and 4th weeks . . .	6	12	13	1	25	2½	2	10
	7	14	11	1				
	8	16	9	1				
2d month . . .	7	14	16	1½	30	3	2	10
	8	16	14	1½				
	9	18	12	1½				
3d month . . .	8	16	14	1½	30	3	2	10
	9	18	12	1½				
	10	20	10	1½				
4th month . . .	9	18	18	1½	36	4½	2½	8
	10	20	16	1½				
	11	22	14	1½				
	12	24	12	1½				
5th month . . .	11	22	18	1½	40	5½	3	7
	12	24	16	1½				
	13	26	14	1½				
	14	28	12	1½				
6th month . . .	12	24	18	1½	42	7	3	6
	13	26	16	1½				
	14	28	14	1½				
	15	30	12	1½				
7th month . . .	13	26	16	1½	42	7	3	6
	14	28	14	1½				
	15	30	12	1½				
	16	30	12	1½				
8th month to 1st year . . .	14	28	20	1½	48	8	3	6
	15	30	18	1½				
	16	32	16	1½				
	17	32	16	1½				
	18	34	14	1½				
	19	34	14	1½				
20	36	12	1½					
21	36	12	1½					
22	38	10	1½					

Under "Interval between feedings" is meant from 6 a. m. to 10 p. m.
 One night feeding at 2 a. m. is allowed until five months of age.
 Two level tablespoonfuls of cane sugar (leveled with a knife) make an ounce. Two rounding table-spoonfuls of Dextri-Maltose make an ounce.

Mixing the Food for the Day—Have bottles thoroughly clean. (See directions given above.)

Take the milk bottle out of the ice box and wipe the top with a clean damp towel.

"The fresh bottle of milk is then poured into the pitcher so that the cream will be mixed in thoroughly, and then poured back again into the bottle in which it came. Measure the proper amount of milk in the graduate and pour it into the pitcher. Measure out the proper amount of ice cold water or gruel and pour it into the pitcher. Measure the sugar with the tablespoon and add to the food. Stir until the sugar is dissolved. The food is then done. Using the funnel, pour into each bottle the amount baby is to have at each feeding. *Stop up the bottles with clean absorbent cotton and put the rack, full, in the ice chest, directly on the ice if possible. Wash up the utensils and put them away for the following day."

*B. Formula used in the Maternity Ward, University Hospital, Ann Arbor, Michigan. (A copy of these directions is given each mother when she leaves the hospital).

1. The materials.

Oatmeal (O. M. G.)

Take two heaping tablespoonfuls of oatmeal or rolled oats, add to it one pint of water and let soak over night. In the morning put on to boil in double boiler, and boil for 1½ hours. Strain and add enough boiled water to make one pint.

Milk (M)

The milk used should be the very best whole milk you can get, that is, milk with the cream well mixed before use. Do not use skimmed milk nor add cream from other milk.

Sugar (S)

Use ordinary granulated cane sugar.

2. How to use the materials.

Buy a measuring glass marked in ounces holding one quart. Have enough bottles so that the feedings for an entire day can be made up at once. After making up the mixture for a day ahead, divide the feeding into separate bottles ready for use. Keep these always in a cool place. Bottles must be washed and boiled daily. Nipples must be boiled after being used, and kept constantly in borax water when not in use.

3. How to prepare the feeding.

- a. Measure the amount of oatmeal gruel.
- b. Add required amount of sugar, measured in level teaspoonfuls.
- c. Bring to a boil for a minute.
- d. Add the measured amount of milk, taking great care not to allow this to boil, but just heat. Bottle, set aside in a cool place until ready for use.

*By courtesy of the director of the maternity department, University of Michigan Hospital, Ann Arbor, Mich.

4. How to use the formula.

Eight level teaspoonfuls (L. T.) of sugar equals one ounce. The total amount of each formula is made a trifle larger than necessary to allow for waste in filling the bottles, etc.

The baby should be weighed each week. If the child has not gained from 4 to 8 ounces during the week and seems hungry, give the next higher formula.

If the baby is losing weight, or cries a great deal, see your home doctor at once.

5. THE FORMULA

- | | |
|---|--|
| 1. Age two to three weeks.
Eight feedings a day 1½ oz. each.
O. M. G. 8½ oz.
S. 6 L T
M. 4½ oz. | 8. Age about three months.
Seven feedings a day 4½ oz. each.
O. M. G. 19 oz.
S. 14 L T
M. 14 oz. |
| 2. Eight feedings a day 2 oz. each.
O. M. G. 12 oz.
S. 8 L T
M. 6 oz. | 9. Age about four months.
Seven feedings a day 5 oz. each.
O. M. G. 20 oz.
S. 14 L T
M. 16 oz. |
| 3. Age four to five weeks.
Eight feedings a day 2½ oz. each.
O. M. G. 14 oz.
S. 9 L T
M. 7 oz. | 10. Age about five months.
Six feedings a day 5½ oz. each.
O. M. G. 19 oz.
S. 14 L T
M. 17 oz. |
| (By increasing the milk and decreasing the gruel, the food value of the formula is increased, while the total number of ounces remains the same). | 11. Age about five and one-half months.
Six feedings a day 5½ oz. each.
O. M. G. 18 oz.
S. 14 L T
M. 18 oz. |
| 4. Eight feedings a day 3 oz. each.
O. M. G. 17 oz.
S. 11 L T
M. 9 oz. | 12. Age about six months.
Six feedings a day 6 oz. each.
O. M. G. 19 oz.
S. 13 L T
M. 19 oz. |
| 5. Eight feedings a day 3½ oz. each.
O. M. G. 19 oz.
S. 13 L T
M. 11 oz. | 13. Age about seven months.
Six feedings a day 6½ oz. each.
O. M. G. 18 oz.
S. 14 L T
M. 22 oz. |
| 6. Age six weeks.
Seven feedings a day 4 oz. each.
O. M. G. 18 oz.
S. 12 L T
M. 12 oz. | 14. Age about seven and one-half months.
Six feedings a day 7 oz. each.
O. M. G. 19 oz.
S. 13 L T
M. 24 oz. |
| 7. Seven feedings a day 4½ oz. each.
O. M. G. 20 oz.
S. 14 L T
M. 13 oz. | 15. Age about eight months.
Six feedings a day 7 oz. each.
O. M. G. 17 oz.
S. 13 L T
M. 26 oz. |

Note:—It is frequently necessary to increase the amount and strength of the feedings somewhat more rapidly than specified, depending on the weight and strength of the baby. By the eighth or tenth month the baby may frequently take whole milk. All the changes are to be made gradually, in a manner similar to the above.

The Temperature of the Food—"And now, when the feeding time comes, all we have to do is to place one of these bottles in a pan of hot water, or in an alcohol bottle heater, and the milk is not contaminated by handling. The food should be just body temperature when it is fed. It is just as bad to have it too hot as it is to have it too cold. The temperature should be tested by pouring a few drops upon the forearm and never by putting the nipple into one's own mouth, or touching the finger to the food itself. In winter it is well to have a woolen bag or knitted cover, which just fits the bottle, to hold the heat in during the twenty minutes while the baby is feeding."

Any baby not gaining weight with these formulas should be at once taken to a physician.

Any baby showing any signs of sickness must at once be put under the constant care of a physician.

Do not Experiment in Feeding a Sick Baby—Proprietary or patent foods should never be given except on advice of a doctor. Pasteurized milk should be given only on advice of a doctor. If pasteurized milk is ordered, follow directions for pasteurization carefully; carelessly pasteurized milk is dangerous.

The following directions for pasteurizing milk are taken from "Feeding the Family" by Mary Swartz Rose.

"Food for the baby should be made up for one day at a time and each meal put into a clean feeding bottle.

"To pasteurize, set the bottles in a wire rack, and this in a deep sauce pan full of cold water. Heat. When the water boils, the pan is to be removed from the stove; let the bottles stand in the hot water twenty minutes, after which they should be cooled as rapidly as possible with water and placed on ice."

General Suggestions—After the fourth month it is well to give the baby one teaspoonful of orange juice at least once a day and increase as he grows older.

Give plenty of water boiled and cooled to temperature of the room, never ice cold.

Never allow a baby to use a pacifier—they cause sore mouths and deform the jaws.

In the early months a certain amount of crying is good for a baby; it exercises his lungs and muscles and helps the circulation. Excessive crying means disease or a bad habit and should be attended to at once.

A child should have plenty of sleep and rest.

A baby is born without habits; the habits he may develop, whether good or bad, depend on the mother or nurse. To develop habits of regularity the baby must have systematic care.

"The baby is not a toy or a plaything, but a great responsibility; its health, growth, happiness depend largely on you."

*Mrs. Max West in "Infant Care" suggests the use of new, clean bottle corks in preference to cotton. Still another method is to buy new clean paraffin paper and place over opening of bottle, holding it in place with a rubber band.

The Baby's Bath.

Articles needed.

Old blanket—large enough to cover the baby.
 Small bath tub.
 Bath thermometer.
 Pure, white unscented soap.
 Warm and cold water.
 Table.
 Glass of water.
 Teaspoon.
 Soft towel and wash cloth.
 Borac acid powder and solution.
 Good talcum powder.
 Absorbent cotton or old linen.
 Clean clothing.

How to give a bath.

Have the room warm.
 Bathe the baby on a table.
 Undress the baby—wrap baby in blanket.
 Wash and dry baby's face.
 Wash eyes, nose, ears and genitals with absorbent cotton dipped in bowl of warm boric acid solution. For the solution use one teaspoon of boric acid powder and one pint of boiled water. Keep in tightly corked bottle.
 Do not wash baby's mouth.
 Soap baby well.
 Put in tub with head well supported. Wash soap off thoroughly.
 Remove to blanket.
 Dry and powder.
 Dress.
 Give a teaspoon of water.
 Feed.
 Put to sleep.

The head.

"The baby's head should be washed carefully every day. If a scaly, yellowish or brown skin appears on it, the head should be greased at night with vaseline or sweet oil. In the morning, after the bath, the head should be gently gone over with a soft brush. The scales will come off. Use no scented or strongly smelling soap on the head. This should be done daily until the head is clean. Every time the scales come back, it should be done again. If you cannot remove the scales in this way, see your doctor, as sometimes a very sore scalp or eczema may occur from neglect."

Baby's Clothing.

"Don't ruff me and fluff me, shirr, rosette and puff me. I am not an exhibition of fancy work. I am a human being who wants to be comfortable!"

Layettes

The first purpose of a baby's clothing is to maintain uniformity of the surrounding atmosphere and to prevent excessive radiation of heat from

the body. Clothing should not interfere with muscular movement nor blood circulation. It should be absolutely comfortable, as simple as possible and easily kept clean.

The articles included in a suitable layette are as follows:

1. Band. Wool with unhemmed edges, either plain or pinked, 8 inches wide, 18 inches long. This is worn about eight weeks, when it is replaced by a loose knitted band with shoulder straps. These garments must be of medium light weight wool or wool and silk in order to keep the baby's abdomen warm.
2. Shirt. Soft wool or wool and silk or wool and cotton. Open all the way down the front. It should have a tab or tape for pinning up diapers. It is well to buy the second size as the first is rapidly outgrown.
3. Petticoat. Light weight wool, wool and silk, wool and cotton, or good quality outing flannel are the materials to use. It should be 24 to 26 inches long and should hang from the shoulders, preferably open on both shoulders.
4. Slip. Batiste, cambric, nainsook, long cloth or dimity, untrimmed except for fine handwork such as tucks, the simplest embroidery, etc.; 24 to 26 inches long. The slip should be fastened with tapes or very small flat buttons.
5. Night dresses. May be made of stockinet, flannelette, or flannel. Should be long enough to protect the feet.
6. Slip overs or wrappers. Cashmere, light weight flannel or outing flannel. They should be open all the way down the front. Worn over the dress on cold days.
7. Jackets. Cashmere, flannel, or wool knitted or crocheted. The jacket is short and is fastened at the neck with tapes or ribbons.
8. Stockings. Wool or wool and silk, or wool or cotton.
9. Diapers. Cotton birdseye, or cotton stork diapers—18, 20 or 24 inches square. Diapers of cheese cloth are very nice for the little baby and are used as an inside diaper when the child becomes older. Protective pads of absorbent material quilted or of rubber with a cotton case are useful; about 12 inches square.
10. Blankets. Eider down, flannel, wool knitted or crocheted. They should be light and warm.
11. Bonnets. Cotton with removable silk lining.
12. Coat. Cotton, silk, or wool. Twenty-six to 30 inches long. It should be plain and not have bunched shoulder capes. A long cape or baby bunting is very good.

The number of articles required follows:

3 first bands.	2 slip overs or wrappers.
3 bands with shoulder straps.	2 jackets.
2 first shirts.	2 blankets.
3 petticoats.	3 dozen diapers.
3 night dresses.	2 pairs stockings.
4 slips.	4 quilted pads.

It is neither necessary nor economical to have many garments. They are expensive and quickly outgrown. Everything must be washable. A baby's clothing should be washed often because it becomes sour and unpleasant if left soiled for any length of time.

Suggestions

1. The baby's flannel shirt should never be removed for coolness, because the abdomen must be protected. The feet, also, must be kept warm. In hot weather, remove outer clothing but never the woolen shirt. A child under 2½ years must have the abdomen covered with wool.
2. It is well to have at least two weights of most of the garments in order to meet the changes of weather which occur in our climate. Medium weight for winter, light for spring, very light for summer. A baby can suffer as much from being too warmly dressed as from being under clothed.
3. Baby's clothing should never be starched. It should not be trimmed with any lace or material irritating to the neck and wrists.
4. Pins should be used as little as possible in fastening a baby's clothing.
5. Never use a rubber diaper as it may cause a serious irritation.
6. Never use a diaper twice without washing; soap is very irritating if dried in clothing. Unironed diapers will be softer and less irritating.
7. When the child is over three months the diaper should be put on as an oblong. Fasten on each side of waist to the shirt, pinning stockings outside of knee.

The Child

The young child should receive just as thoughtful and intelligent care as should the baby. Because a child has successfully gone through the second summer does not mean that all restrictions may be removed and that he may "eat everything," sit up late at night, and in other ways conduct himself like a grown-up.

So important is the care of a child between the ages of two and six or seven years that especial attention should be given it. Every mother should send for the following bulletin which will be sent free upon request:

Child Care—Part 1—"The Pre-School Age," U. S. Department of Labor, Children's Bureau, Washington, D. C.

Just as worthy of consideration is the adolescent period. In other words,

thoughtful care must be given to the child from the period of babyhood to the time when he has reached maturity. Plain wholesome food, abundance of fresh air, plenty of sleep and rest; these should be the watchwords.

Careful investigation by trained public health workers shows that the country boy and girl are more sickly and frail than their city cousins, even including the children of the tenements. Conditions vary, depending somewhat on location, but more on the efficiency and up-to-date ideas of the parents, the school teacher and the rural health officer.

The Child's Bath—Among the many services which the mother renders the child one of the most valuable is teaching him those ideals of personal cleanliness upon which health and self respect are built. A child who learns to love a clean body, clean hands, teeth, nose and mouth can never altogether forego them as he grows into adult life.



Busy mothers with several young children to keep clean, without modern bathing appliances, it may be, and often without an adequate water supply, find the children's daily baths a great burden. But even in the least favorable circumstances some sort of a bath can be had. Children at an early age can be taught to give themselves the nightly tub or sponge bath.

The cleansing bath is best taken at night since it is both cleansing and relaxing. The temperature should be tepid water about 90°, a little less than body heat.

The Child's Food—All foods do not affect a child in the same way. They may build up his body and serve to make him strong, healthy and vigorous; they may overtax his digestion or fail to give him the nourishment he needs, and thus cause him to become a nervous, sickly man.

Which group of foods are you giving your child?

Are you experimenting with him? Are you the kind of mother who gives a child the wrong foods and then, because she can see no immediate harm, laughs at all "suggestions for child-feeding?"

Which mother is taking the greater risk?

Remember that a child from two to seven or eight years of age should be fed with as much thought and judgment as should a baby.

A child's diet should be made up of simply prepared, mild-flavored, non-stimulating foods. Meats, highly seasoned foods, very sweet dishes are not recommended because after they are once tasted it is more difficult to make the child eat enough of the milder, more wholesome foods such as milk and unsweetened cereals.

Do not allow "tastes" of foods he should not have. If he does not know what candy is, he will not tease for it. Carefully train the child's taste for the foods he should have. Do not discard wholesome food because the child seems at first not to care for it. Tempt him to eat it by preparing it attractively or serving it in a new way. A child's appetite may be trained through his curiosity.

A young child should be fed four times a day. After the third year three good meals a day will usually be found to be sufficient. Establish regular meal times and adhere to them as closely as possible. Do not hand the child

something to eat every time he whimpers between meals. Possibly he is thirsty.

Changes to more complex foods or different methods of preparing the same foods should be made *gradually*. Remember the child's digestive tract is undeveloped. It should be trained slowly and carefully, for it is forming habits that will last a lifetime.

Remember that in feeding children

1. "Regularity, simplicity, and serenity, are good watchwords."
2. "Feeding must be a matter of principle, not of impulse; the reward will be partly in the present—much more in the future."
3. "Listlessness may often be due to a meal that is too heavy or that is hurriedly eaten."
4. "Headaches are often the result of improper feeding."

*Foods a child should have

1. Milk. 1 quart per day. Why? Because,
 - a. It contains ideal cell and muscle building material.
 - b. In the fat are growth promoting substances.
 - c. It supplies calcium and phosphorus for the bones.
 - d. It contains some highly valuable iron.
 - e. It contains other building and regulating material.
 - f. It is easily digested and completely absorbed.

Milk need not be given entirely as a beverage. Part may be served on cereal, some used for junket, white sauce, and soft custard; as the child grows older cream vegetable soups, corn-starch puddings and weak cocoa and occasionally milk sherbets may be added.

2. Eggs. During the second year one egg yolk should be given daily, to furnish iron and phosphorus. Beginning with the third year a whole egg may be given, and later more than one may be included.

They should always be cooked soft.

They should never be fried.

They may be included in the dessert.

3. Cereals. Well cooked cereals are a valuable part of the child's diet. Introduce them first as gruel, later as "jelly," then the finer varieties unstrained, and finally, any thoroughly cooked cereal. The whole grain cereals are best because of the mineral content. They should be cooked at least forty minutes, seasoned carefully with a little salt, and served with whole milk or thin cream—no sugar. They may be served as the main dish for breakfast or supper or made into puddings for dessert.
4. Bread. Early in the second year, stale bread or zwiebach should be given to help the child form the habit of mastication. This should be continued through early childhood, and even when the child reaches the age of six, stale breads should be given.

*These suggestions are particularly for the child from babyhood up to the age of six or seven. The same general principles should be followed as he grows older. For a complete discussion of the subject see "Feeding the Family"—Mary Swartz Rose—MacMillan Co.

5. Fruit. Fruit helps counteract constipation and helps growth. Orange or prune juice, unsweetened, is best at first (prune juice should not be too strong); begin with one or two teaspoonfuls daily and increase gradually. Fruit juices and the pulp of cooked fruit are safest. Apples are very good. The raw apple is a valuable food but unless it is scraped should not be given until the child is old enough to chew his food thoroughly.

Dried fruits are valuable and should be prepared with long, slow cooking and little or no sugar. At first give only the strained pulp.

For the first few years *do not give fruits with seeds*, such as berries of any kind. Bananas should not be given unless they are cooked.

Recipe for baking bananas:

Peel banana and slice lengthwise. Sprinkle with a little sugar and lemon juice. Bake slowly 20 to 30 minutes.

6. Green vegetables. After the middle of the second year, green vegetables may be introduced and should be given at least once daily if only a teaspoonful in amount. Choose those mild in flavor, cook thoroughly and strain. Later, mash or chop fine, or serve with white sauce. Among the first vegetables given should be carrots. Spinach is excellent because of the iron content. Onions, asparagus, young beets, string beans, peas, squash, stewed celery, etc., are all good.

Baked potato may be given for additional energy, but not until the second year. Serve with butter or bacon fat.

No other foods are necessary, for all kinds of nutritive materials are furnished in the above diet. Greater variety might prove harmful for it would tempt the child to discard milk. Any highly flavored or highly seasoned dish is objectionable for the same reason.

Reasons for giving little or no meat.

Meat is not necessary if the child has plenty of milk and eggs. The reasons for withholding it are as follows:

1. Meat is most liable to putrefaction in the intestines.
2. Meat is no better for growth than milk. Because of higher flavor meat tends to displace milk and it has poorer mineral content.
3. Stimulating extractives found in meat are not necessary to the child.



Water

See that the child has plenty of water to drink. Teach babies and children to drink water freely.

School Lunches—The packing of a school lunch is a problem worthy of especial thought and care. The excitement of the new surroundings, the tendency to eat hurriedly and not chew the food fine enough, the added nervous strain, all hamper digestive processes; therefore particular pains should be taken to make the lunch wholesome and attractive.

If it can possibly be arranged, the child should have a warm drink or soup for lunch. The best way to take care of this is by the organization of a hot lunch club.* If this cannot be arranged, a small thermos bottle would take care of it nicely and delight the child. Hot cocoa or a milk soup or even stew could be carried in it.

Cautions on use of thermos bottle.

1. A thermos bottle will keep liquids hot or cold. Cold milk only should be carried in a thermos bottle. Warm or hot milk might sour or putrify.
2. Liquids that have boiled, such as cocoa or soups, may be kept hot in the thermos bottle.
3. The bottle must be kept CLEAN. Wash carefully each night with soap and water and rinse well. Let stand uncovered until morning. Occasionally let it stand over night filled with strong soda water.

The simpler the foods are, the better off the child will be. Don't make the child's lunch box the receptacle for odds and ends of left-over food. Simple sandwiches, some fruit or fruit sauce, a piece of celery, and a plain cookie or two with the warm dish make a satisfying and easily digested lunch.

The milk in the child's diet of course should not be neglected. He should have a quart of milk a day. Enough should be provided in the lunch, either as milk or in cocoa or soup to bring the total for the day up to the required amount.

See that the lunch box is kept scrupulously clean and aired daily.

Following are some suggestions for sandwich fillings:

Hard cooked eggs, chopped and seasoned.
Peanut butter.
Cottage cheese.
Baked beans—mashed and seasoned.
Ground meat—mixed with salad dressing.
Thinly cut or grated cheese.
Ground dates or figs.
Flaked fish.

Bread for sandwiches should be at least a day old.

Pack the lunch carefully in order to insure its keeping well until lunch time and to make it appear as attractive as possible to the child. Wrap each sandwich, cookie or cake separately in paraffined paper and use plenty of paper napkins. A covered glass jar for sauce, a tiny salt shaker and paper cups and dishes are desirable equipment for the school lunch box.

*For help in organizing a hot lunch club, write to the Boys' and Girls' Club Department, Michigan Agricultural College, East Lansing, Michigan.

Children's Diseases—All "catching" diseases are preventable! It is not necessary for children to have the common infectious diseases. No more harmful doctrine was ever held by mothers than that all children must have these diseases and therefore may as well be deliberately exposed to them in order to have them while young. It is now known that many serious and chronic illnesses of adult life have their beginnings in some disease of childhood like measles, mumps, whooping cough, diphtheria, scarlet fever, etc.



Dr. Richard M. Olin, executive secretary of the Michigan State Board of Health, declares that most of the pneumonia cases that occurred in soldier

camp, some of them with fatal results, came as sequels to measles, and that measles and mumps were the leaders of all diseases that attack the boys in camp. "These diseases are not contracted in camp," says Dr. Olin, "but in civil communities before the boys leave for camp, while they are home on furloughs, or when they are visiting in neighboring towns on leave." Next to venereal diseases the army medical board dreads measles and mumps. (This statement applies to conditions that existed before the influenza epidemic which passed over the country in the fall of 1918. The situation that existed during the epidemic was abnormal, and occurs only occasionally. Unfortunately the condition discussed by Dr. Olin is so usual as to pass almost unnoticed.)

All such diseases are caused by taking into the body microscopic living plants or animals called germs and *in no other way*.

It is by the communication of these germs from the sick to the well that people "catch" diseases and epidemics are caused. The children of a household—and the adults also—should be taught to practice strictly such simple preventative measures as those that follow; they are not silly or "faddish;" they are plain common sense:

1. Cover the mouth when coughing or sneezing.
2. Keep away from people who are coughing or sneezing.
3. Use your own drinking cup! "A family drinking cup" should be on a par with a "family tooth brush."
4. Do not use another's towel or handkerchief.
5. Do not put into your mouth pencils, whistles, or things which have been used by other people.
6. Wash the teeth, rinse the mouth daily.
7. *Wash the hands before eating.*

The deaths of school children from preventable diseases cry aloud for the medical supervision of schools.

Clothing for Children—Children should be clothed so that they are absolutely unconscious of their clothing. The idea is difficult to put into words, but we must concede the fact that clothing is a factor in character building. The child who is too well dressed thinks too much of his clothes and becomes

snobbish; the one who is oddly or unattractively dressed is shy and self-conscious. If dressed in uncomfortable or soiled clothing he is fussy or slovenly. Simple, genuine, substantial clothing keeps the child from being self-conscious and actually develops in him or her the qualities of simplicity and genuineness.

Clothing that is correct from a hygienic standpoint will keep children in health and help prevent such illnesses as colds and pneumonia. A child's body should be kept dry, clean, warm, unrestricted and well ventilated. They need warmer clothing than adults because heat is lost by radiation from the body surface which is greater in proportion to the weight. The joints in particular should not be exposed, because, with their lack of blood supply, they are least capable of resistance.

Night clothes for children should be plain, big and warm. Until the child is five or six years old, pajamas with feet will protect him at night.

Underwear, preferably of all or part wool, loosely woven, should reach to the ankles, wrists and neck. Union suits are warmer than separate garments as well as less bulky. Warm stockings and shoes with good soles should be provided, also a cotton underwaist. These with a plain dress of substantial material, with bloomers to match or of black sateen, constitute a good winter indoor outfit for the little girl; for her brother, provide a light weight washable suit.

Every child should have a sweater or some light weight wrap which can be easily put on and taken off, for play and to wear under the outside coat in cold weather. The overcoat should not be too long or cumbersome. Leggings will protect children in cold weather and can be made from a discarded pair of men's trousers. They should be snapped all the way down, making them easy to fasten and unfasten.

Sweaters are not good on windy days but if worn under a light weight overcoat, the child will be much warmer than when clad in a single heavy coat, since the layer of air between the two garments acts as a non-heat conducting agent.

Cleanliness is necessary for hygiene and materials should be selected with this in mind. If the nature of the material allows it to retain germs or prevents it from being thoroughly and frequently cleaned, germs and impurities are kept in contact with the body and disease results. Linen is the cleanest fiber, cotton can be most easily kept clean, silk is naturally clean but difficult to launder, while wool naturally stores up impurities and oils from the skin and is hard to keep clean. Modern cleaning agents, however, are overcoming this disadvantage in an otherwise excellent clothing fabric. Do not use trimming that will not wash.

Clothing for children should be of such light weight and so constructed and fitted that entire freedom of motion for their growing bodies is permitted. There should be no tight collars, hose supporters, shoes nor bands, and as far as possible, all garments should hang from the shoulders.

Loose weaves provide warmth by means of their non-conducting air spaces and at the same time allow ventilation.

Health Leagues—Form "Health Leagues" among the older children; they will be interested. Can you not organize a few children in your neighborhood into a health club, influencing them to adopt as their motto the "Daily Health Guide" which follows:

Daily Health Guide for Boys and Girls.

[Kansas State Board of Health.]



Morning. Up smiling. Resolve to keep cheerful all day. Anger, fear and envy make poison in your blood.

Off to School. Start in time to avoid running. Walk with shoulders back and head up. Take ten or more deep breaths of fresh air going to and coming from school.



In School. Insist on plenty of fresh air. Sit straight at your desk. Study hard. Do not put your pencil or other dirty object in your mouth.

Play Time. Play hard and have a good time. Do not sneeze or cough near another person and do not spit. Use your handkerchief.

Noon. Wash hands and face before eating. Use soap and your own towel. Drink several glasses of water. Use your own drinking cup and do not exchange bites of apple or other food.



Evening. Clean up every evening. A cleansing bath at least twice a week. Early to bed for ten or twelve hours' of good sleep. Windows open top and bottom; a sleeping porch if possible.

Wake up next morning smiling.



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Literature on Health

The following may be obtained free by writing to the address given:

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| Prenatal Care—Mrs. Max West | } Children's Bureau, U. S. Department
of Labor, Washington, D. C. |
| Infant Care—Mrs. Max West | |
| Child Care—Mrs. Max West | |
| Food for Children—Farmers' Bulletin No. 717 | } U. S. Dept. of
Agriculture,
Washington, D. C. |
| School Lunches—Farmers' Bulletin No. 712 | |
| What the Body Needs—Farmers' Bulletin No. 808 | |
| Cereal Foods—Farmers' Bulletin No. 817 | |
| Foods Rich in Protein—Farmers' Bulletin No. 824 | } Better Babies Bureau, Woman's Home
Companion, New York City. |
| Pamphlet on "Better Babies" | |
| The Young Mother's Registry—Ladies' Home Journal, Philadelphia, Pa. | |
| Bulletins on Health—Michigan State Board of Health, Lansing, Michigan. | |
| (Write and ask to have your name put on the mailing list.) | |
| U. S. Public Health Bulletin No. 37—Treasury Department, Washington,
D. C. | |
| Public Health Engineering Bulletin No. 5—State Board of Health, Lansing,
Michigan. | |
| Public Health Engineering Bulletin No. 2—State Board of Health, Lansing,
Michigan. | |
| Cornell Reading Course—Vol. III, No. 59, Sanitation Series No. 4, N. Y.
State College of Agriculture, Ithaca, N. Y. | |
| Farmers' Bulletin No. 463—U. S. Department of Agriculture, Washington,
D. C. | |

Books That You Would Find Very Helpful

- Feeding the Family—Mary Swartz Rose, Published by Macmillan Co.,
New York City.
- The Book of Home Nursing—Frances Campbell, Published by E. P.
Dutton & Co., New York City.
- The Healthy Baby—Roger Dennett, M. D., Published by Macmillan Co.,
New York City.

