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Home Sanitation.

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## Home Sanitation.

Domestic sanitation embraces a large province of possibility and responsibility. Within its jurisdiction come many of the little things which have so much to do in determining many fates.

In all classes of society, except those which are degraded and ignorant, we find a growing interest in guarding against unhealthy conditions of person, house and environment. Intelligent people do not now attribute the consequences of our neglect and carelessness to the "afflictive dispensations of Providence," as many did in older times.

The interest in sanitation is growing. As a people, we live in more comfortable houses than are found in any other country in the world. But if still more interest should be taken in the subject there would be much less sickness.

To insure health, we must have fresh air, pure water, wholesome food, clean houses, clean streets, good drainage, proper clothing and cleanliness habits. It is sad to think so many

people die every year whose lives might be saved if the laws of health were understood and obeyed. Fevers are usually caused by poisonous matter which floats in the air, or which gets into the water we drink. In cities and sometimes in the country, children grow up to be miserable men and women, because, on account of ignorance or neglect they have not had proper care.

We will now speak of some things which are especially important in order that we may have a good sanitary home. Let us first think of the location of our home. We should select a site where there will be good natural drainage; as on a gentle slope looking towards the south or south west. It must not be near a marsh or sluggish river bank as the ill-smelling vapors are wafted for hundreds of rods. Sandy soil is preferable.

Before the house is built, a definite plan should be made, that the best sanitary results may be obtained. To do this, we must think especially of the cellar, drainage, ventilation, heating and lighting.

The floor of the cellar must be made

level. Then it should be tamped, using equal parts sand and gravel. Mix these in the cellar using a good deal of water. Small rock should be thrown in and mixed with this. Sometimes water runs in from the sides and sometimes from below. The grouting material consists of cement, clean scoured sand and broken rock. Equal parts of sand and cement should be used. This mixture is spread three inches thick over the floor, and should be tamped well along the edge. The mixture becomes hard in six or eight minutes. It should be sprinkled with water once a day for three days, then another coat put on without the stone. The walls should be pointed with common mortar, then plastered with cement. The cellar should be kept perfectly clean, allowing no vegetables or other matter to decay in it.

All plumbing should be simple and accessible, and should be made of good, sound material. All vaults and open waste pipes should be kept clean, well ventilated, and be periodically inspected. Decayed leaves, soot and dust should never be allowed.

to collect in the pipes. In many houses the refuse from the kitchen and bath room is thrown in the back yard. This should never be done, as it makes a bad odor and is dangerous to health. The kitchen should be provided with a large sink, leading into a tile drain, which is slanting, this should end in a cess pool, or in a flowing river. The sink must be kept perfectly clean, or the pipes will become clogged. We must have pure water, so a great deal of care must be given the cistern and well. The soil around the well should be banked up, so there will be no entrance of surface water. The cover should fit tightly, and the ground for several feet around kept free from debris.

Before beginning its construction we must plan the way the house is to be ventilated. By ventilation is meant the renewal of air in a confined space, so as to preserve that degree of purity which is necessary to preserve the life and health of animated beings. When this is done without injurious derangement of temperature or production of local draughts, we have good ventilation.

Expired air is rendered unfit for respiration by three causes. First, it is deprived of a portion of its free oxygen. Second, it contains an excess of carbonic acid. Third, it contains an animal vapor, or a volatile organic substance, which gives a peculiar offensive odor to an ill-ventilated, crowded room. The limit of impurity of air as effected by respiration should not exceed the presence of eight parts carbonic acid in ten hundred of air. Persons can live in an atmosphere less pure, but at the expense of the present or future vitality.

Dr. R. Angus Smith has given us a good test for the purity of air. It is as follows: Fill an eight ounce vial with pure water. Empty out the water in the air you wish to test; the vial will thus be filled with the air of the room. Pour into the vial half an ounce of clear lime water, and shake it thoroughly. If it remains perfectly transparent, without any trace of milkiness it does not contain more than eight parts carbonic acid in ten thousand.

Rooms may be heated by an open fire, steam coils, radiators, furnaces or by stoves. In a small room an open fire is the

most cheerful and healthful, but is impracticable in a large room because the intensity of the radiant heat decreases as the square of the distance increases.

Radiation from steam coils placed in the room is probably the worst method of heating, because it does not provide for any removal of air. If the steam coils are placed in a furnace chamber, the method is a good one, but there is a liability of it getting out of repair. Stoves are the most common method of heating, and are very good ones.

The lighting is another subject that needs consideration. All combustion uses up oxygen, and produces carbonic acid gas: thence, with the exception of electric light, all artificial illumination of a room is a great tax upon the air supply, and upon the means of ventilation. One ordinary gas jet will consume as much air as two persons, and a kerosene lamp as much as four persons.

Kerosene lamps, if used should be thoroughly cleaned and filled every day. Do not turn lamps down, as it is no saving, and the injurious gases escape. It always pays to buy good kerosene.

Two points should be observed in the furnishing of our homes. Use and beauty. One should strive to secure the maximum of utility for the money spent. Furnishings which destroy comfort and injure health are not truly beneficial or beautiful. Furniture should be plain, so that it will catch less dust, as dust is the cause of many diseases. When undergoing decomposition, it is the source of a close stuffy odor often noticed in ill-ventilated and heavily furnished rooms.

The mode of dressing is of very great importance in considering the health of the individual. Clothes should be evenly distributed over the body, and should be suspended from the shoulders. Clothing should never be too tight. It should fulfill three conditions. Health, decency and beauty.

The food and drink of the family is a matter which must not be overlooked. Good digestion is essential to good temper. Food has two great offices. First, to keep the body warm; Second, to keep it in good working condition. These conditions are fulfilled by three classes

of food. First-, Nitrogenous - necessary for the growth of the living organism; Second, those consisting mainly of starch and sugar, - called carbohydrates. Third, fat, largely used up in maintaining bodily heat.

Each individual of the family must be studied to see what kind of food suits him best, not always depending on the food which tastes best, although as a usual thing the food which is appetizing is good for a person. Each person is a living, walking chemical laboratory, and if we hinder the action of the work in this laboratory, we must sooner or later suffer. We must strive to maintain health, and a sound mind in a sound body. Our health, our wealth, and even our morals, depend largely upon the kind of food we eat and our manner of living; and these depend upon our home and our home efforts. The plain foods well cooked should be the rule.

National life depends upon the condition of the state, the state depends upon the homes of its people, and the home depends

upon the home-maker. Thus we see that there is a great responsibility resting upon the home maker. She, to a great extent, has it within her power to decide the destiny of a nation. Women have better advantages now than they did in the past. Education means all that furthurs to the development of the body, mind and soul. When these are fully developed we have an ideal home. All life is subject to the law of environment; this being true, the home should be surrounded by all pure, healthful and practical environments which is necessary for its complete and perfect growth.

Sanitation should be a part of every girls and boys education. This education is not complete without it. We hope the time will soon come when every one will have a thorough knowledge of this most important subject.