

SUGGESTIONS

FOR THE

RESTRICTION AND PREVENTION

OF

DIPHTHERIA.



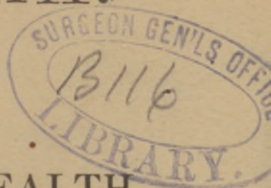
PRESENTED BY THE

STATE BOARD OF HEALTH

OF WISCONSIN.



Please Preserve for Future Reference.



THIS CIRCULAR

Has been prepared by the Wisconsin State Board of Health in the hope that its suggestions may help to a better knowledge of a most fatal disease, and one to which some of our most valued citizens have fallen victims.

We may reasonably and confidently expect to stay its progress by the observance of the precautions herein suggested, and all who receive this circular are earnestly requested to co-operate with the Board in the dissemination of these facts and suggestions.

In issuing a third edition of this circular, the Board takes occasion to return thanks to many correspondents for evidence of its usefulness, and to reiterate its conviction that a careful observance of the rules given in it will be instrumental in preventing much sickness and in saving many lives.

Copies for gratuitous distribution may be had in any desired number by addressing

J. T. REEVE, M. D.,

Secretary, Appleton, Wis.

DIPHTHERIA.

Diphtheria is a contagious and infectious disease of great severity and frequent fatality. In view of these facts, the State Board of Health urges upon the citizens of Wisconsin the exercise of such precautions as the experience of the most careful and competent observers has proven to be effectual in its restriction and prevention, and to this end calls attention to the following facts and suggestions:

ITS RELATION TO FILTH AS A CAUSE.

Experience has abundantly shown, that **Diphtheria occurs most frequently, and in its most fatal forms, in localities which are filthy.** It has so often appeared and assumed a malignant character in such localities, while adjacent premises, of which the sanitary conditions were good, have either escaped the disease entirely, or

its course has been much less severe, that it has been rightly characterized as pre-eminently a **filth disease**.

It is well always to bear in mind that the effects of filth are to lower the vitality of the system, to make it less able to withstand the attacks of disease of any kind, and to fit it for the development of the graver forms of any prevailing epidemic.

By filth we mean not necessarily such as exists in visible and disgusting forms. It may be present in the invisible and possibly inodorous gases from an illy-constructed sewer, from decaying vegetables in the cellar, or in poisonous exhalations from the human breath or body, in unventilated rooms. From any of these poison may be inhaled with every breath; or the leachings of slop water thrown upon the ground, of a garbage heap, a cess-pool or a privy vault, whether on your own or on your neighbor's premises, may penetrate through many feet of soil and pollute the water supply, which to casual observation seems pure.

Its Contagious and Infectious Character.

Whatever may be its origin, Diphtheria is unquestionably both contagious and infectious, and may be communicated from one sick with the dis-

ease to another by the breath, through the air which surrounds him, or by the secretions or discharges from his person.

It may also, but with less certainty, be carried from one place to another and communicated by means of clothing, food and other articles which have been contaminated in the sick-room.

As a rule, the danger of exposure to the disease is in proportion to the malignancy of the case; but to this there are many exceptions, and exposure to the mildest case may be followed by the severest form of the disorder. Children are much more susceptible to the disease than are adults, and may contract it in its worst type from the kiss of one who has an apparently trivial "sore throat," not deemed sufficiently severe to render any precautions necessary.

The time that elapses between exposure to and the subsequent development of Diphtheria in the person exposed, bears some relation to the malignancy of the disease and its prevalence as an epidemic at the time. Usually it appears within the first week, but in exceptional cases its appearance may be delayed to a much later period.

SPECIAL MANAGEMENT OF CASES.

It is of the first importance that an outbreak of the disease should be the signal for the immediate observance of those precautions which are known to be most effectual in the restriction of any contagious disease, and in this respect the treatment should be as vigorous as in a case of small-pox or scarlet fever, **the one rule of most imperative necessity being the isolation of the patient.**

IMMEDIATELY upon the appearance of the disease, the patient should be removed to a room as remote as possible from family occupancy. This room should be prepared for his reception by removing from it all superfluous furniture, especially such as woolen carpets, extra clothing, books, and all window curtains, table spreads and other similar articles which cannot be subsequently cleansed by boiling.

The room should be large and sunny, and it is better if it be in the upper part of the house. Particular care should be taken to have it ventilated as thoroughly as possible, in order to *dilute the poisoned atmosphere* to the utmost extent, while the patient is protected from any direct draughts. This thorough ventilation will be facilitated, and

the care of the patient rendered easier, if it be practicable to place the bed so as to make it accessible from all sides.

No one should be admitted to the sick-room except the necessary attendants, whose garments should be made of such material as will admit of being cleansed by boiling.

No food which has been in the sick-room should be partaken of by the well; even the dishes which have contained such food should be cleansed by themselves.

Under no circumstances should the patient's soiled bed or body linen be mixed with other soiled clothing, or be admitted to the general wash; it should be at once cleansed by *boiling* water.

For the cleansing of the mouth and nose from the discharges, which are sometimes copious and always dangerous, bits of linen or cotton cloth, or pieces of soft paper should be used and immediately burned.

Discharges from the bowels and bladder, which are also sources of danger, should be received in vessels containing disinfecting fluids, and as soon as possible removed from the room and buried. If received on cloths, these should be burned.

For the purposes just mentioned, copperas, otherwise known as sulphate of iron or green vitriol, forms a cheap, convenient and efficient disinfectant. It is prepared for use by dissolving two pounds of copperas in a gallon of hot water. In malignant cases, it is recommended that an ounce of crude carbolic acid be added to each quart of this solution. These materials also form a good disinfectant for privies, drains and other foul places, and may be prepared for this purpose by adding eight pounds of copperas to five gallons of hot water, to which a half pint or more of crude carbolic acid may be added if the place be very foul. From a pint to a quart of this solution used twice a day will suffice to keep down foul odors; a much larger quantity, however, is needed for the first application.

Another disinfectant recommended by the New York Board of Health, which may be freely used in the sick chamber, and which is especially adapted for the reception of soiled clothing until it can be further cleansed by boiling, is composed of sulphate of zinc (or white vitriol) eight ounces, carbolic acid one ounce, and water three gallons.

Still another convenient and efficient disinfectant is the solution of chlorinated soda known as Labarraque's Disinfecting Solution, which, diluted with from eight to twelve parts of water, may be used for cleansing utensils, washing the hands of attendants, etc.

THE RECOVERY

of the sick person should be complete, and the cleansing of the person thorough, before he again mingles with the well, and, during the presence of Diphtheria in any family, all members of that family should be excluded from the public schools and refrain from attendance upon public assemblies or unnecessary intercourse with others; and this isolation and practical quarantine should continue until, in the judgment of some competent physician, it is safe to remit the precaution. The records of this Board show that to the neglect of such rules many sad and severe epidemics may be clearly traced.

IN CASE OF DEATH,

the funeral should be conducted with little publicity and without exposure of the body, which should early be placed in a tight coffin with some of the disinfectants above mentioned. **In no case should children be permitted to attend such funerals.** The non-observance of these precautions is known to have been the cause of the death of many persons, in this state and elsewhere.

SUBSEQUENT CARE OF THE PREMISES.

Rooms from which patients who have had Diphtheria have been removed should be thoroughly disinfected by fumigation, and if there has been any special malignancy of the disease, all paper hangings should be removed from walls covered therewith; all other walls and all ceilings should be freshly whitewashed, and the wood-work and floors be thoroughly scrubbed.

To the lack of thorough disinfection of houses or rooms where Diphtheria has occurred may often be traced new outbreaks, even after intervals of complete exemption. The poison which has been retained in such apartments reveals itself and re-asserts its fatal power over the first chance comer whose system may be in a condition favorable for its reception.

Sulphurous acid gas, or the fumes of burning sulphur, is an efficient, convenient and inexpensive disinfectant. Two pounds of sulphur will suffice for a room twelve feet square and ten feet high. It needs but to be burned in the room by putting it, in powder or small fragments, on live coals, in a safe vessel; all doors, windows and other apertures should be tightly closed during the burning of

the sulphur, and for several hours afterward, and the room should then receive free and prolonged ventilation.

GENERAL PREVENTIVE MEASURES.

Finally, while isolation and disinfection should be thorough and persistent in the presence and for the restriction of Diphtheria or other contagious and infectious disease, it should be remembered that no care to isolate patients or to disinfect premises already contaminated can atone for the neglect of those precautions which all experience has demonstrated to be capable of mitigating the violence of, if not wholly preventing, almost all contagious diseases. The continued prevalence of Diphtheria should be a sufficient reason for careful scrutiny into the sanitary conditions of any community.

CLEANLINESS AND PURITY OF AIR ARE THE DEADLY FOES OF ALL CONTAGION. PURE AIR, PURE WATER AND A PURE SOIL ARE ESSENTIAL CONDITIONS OF HEALTHFUL LIFE AND THE SUREST SAFEGUARDS AGAINST DISEASE OF EVERY KIND.

Secure dryness for every part of your dwelling by thorough drainage; secure cleanliness for every

part of your premises by careful removal of all decomposing animal or vegetable matter, by allowing no garbage heap or cess-pool to remain near the house, and by frequently cleansing and disinfecting the privy, the contents of which may at all times be kept entirely inoffensive by the plentiful use of dry earth or coal ashes. Examine and correct any defects of sewerage. In short, let there be nothing left to pollute the atmosphere or poison the water supply. Let the sun and air have free access to the house, and especially to the sleeping rooms. Secure proper and well-prepared food, and comfortable clothing, and "the pestilence that walketh in darkness" and revels in filth will pass you by seeking a more congenial soil.

NOTE.—The State Board of Health earnestly desires timely information concerning the outbreak of contagious disease in any part of the State, whatever be its character. Circulars giving the precautions proper to be taken in such cases, will be sent to any address upon application to the Secretary.

Circulars upon the "Management of Young Children" may also be had, if desired.

