

## THE ANTITOXIN TREATMENT OF DIPHThERIA.

The favorable reports which are being received from various quarters, of the successful treatment of diphtheria by Aronson's antitoxin, an antidote prepared from the cultivation of the diphtheria bacillus, with attenuation of its toxicity, seem to indicate that it will be classed with the great discoveries of Pasteur and Jenner. It is claimed to possess an advantage over these, however, in the fact that it not only produces an immunity from the disease, but also has a curative effect after the disease has already been contracted. The earlier in the course of the disease the treatment is instituted the better, and when the injections are made in the first few days, the reports show that the disease does not extend to the larynx, and the complications and sequelæ have been of a normal character. The dose varies from 5 to 25 C.D. ( $1\frac{1}{4}$ - $6\frac{3}{4}$  fl drs.) according to the age of the child and severity of the case, and may be repeated on the following day if necessary. The usual place of injection is in the back, below the scapula. The injections seem to be followed by no disagreeable symptoms, and in from twelve to twenty-four hours there is a fall in the temperature (often to normal) accompanied by marked improvement in the general condition.

The most extensive tests of this new treatment have been made in the Kaiser Friedrich Children's Hospital, where 1,081 cases of diphtheria had been treated by the usual methods, with a mortality of 38.9 per cent. Some months ago the antitoxin treatment was begun there, and since that time 128 cases have been treated by this method with a mortality of 13.2 per cent. Dr. Katz also reports having inoculated 72 children exposed to the disease, and of these only 8 were attacked, and so slightly as to be free from evil consequences.

One great disadvantage in the employment of antitoxin is that it is very expensive, and this places it beyond the reach of poor people, unless the municipal and State sanitary authorities come to their aid. In New York City, this will probably be done at an early date, as Dr. Herman Briggs, bacteriologist of the Board of Health of the city, has recently returned from Berlin, where he has been studying the manufacture and results obtained by the use of the remedy, and has reported so strongly in favor of it, that the Board of Health has asked for an appropriation in order to enable them to undertake its manufacture.—*Medical Fortnightly*.

## THE CAUSE AND PERCENTAGE OF MYOPIA.

At this season of the year, when our school children are flocking home with bright eyes and healthy cheeks, from country, mountain, lake and sea; when the house is being ransacked

from top to bottom in search of the school books which were so gladly thrown down in the early summer; when teachers and scholars alike are preparing for another year of arduous work, it seems a fitting time to offer some suggestions as to the cause and prevention of myopia. The ground upon which we base our remarks is as follows: We know that myopia is an acquired disease or condition, occurring ordinarily during school life; that as the children advance in grade, the number of myopes increase. According to Fuchs, about 20 per cent. of the German students are myopic in the lowest classes of the high schools, and about 60 per cent. in the highest classes.

Countless monographs have been written attempting to prove that the arrangements in schools, the light and air space, height of benches and desks, print of books, etc., are important factors in the production of myopia.

While admitting that badly lighted schools, etc., aggravate the tendency toward myopia, we must evidently look elsewhere for the cause, since we find that the greatest increase in myopia occurs in our high schools, colleges and universities, buildings which are as perfect as money or science can make them. Where, then, shall we look for the cause? Let us study, for a moment, the school life of a child from the day it is thought old enough to go to school until the day of graduation. The first years of school life are regarded by the child as so many hours of hardship, hours cut off from play. The little dears may seem much occupied with their lessons, but the girl is thinking of her doll, and the boy, of his top and marbles.

When the bell rings for recess or at the close of the session, the books are shut as quickly as the laborer drops his shovel at knocking off time. So it is safe to say that the children are not ruining their eyes at this period of the school work. But the years pass, and as the scholars advance in grade the studies become more difficult, the thirst for knowledge increases, the children become ambitious and find the school hours all too short to master their lessons. Then they carry a book home so that they can do a little work after supper.

The father and mother praise them for their diligence, instead of sending them to bed. It is at this time we notice the development of myopia. We now reach the high school, and find everyone under high pressure. The amount of work required necessitates closer and closer application during school hours, and an ever increasing amount of work to be done at home. This persistent use of the eyes, often by dim light, without proper intervals of rest, overtaxes the eyes and furnishes fitting soil for the rapid increase of myopia.

The means by which we may hope to prevent the development and retard the progress of myopia are clear, and can be summed up in a