The process is much assisted by what are called "predisposing causes," such as an hereditary tendency, bad food or bad hygiene, and certain diseases which lower the vitality, especially measles and whooping cough. The disease is very rare under the age of six months, and generally occurs in children over a year old. The expressions "strumous or scrofulous tendency" were used before the cause of tuberculous disease was known, and generally mean an illness caused by the infection of the body by the tubercle bacillus.

(To be continued.)

## Medical Matters.

## INOCULATION AND DIPHTHERIA.



The alarming recrudescence of diphtheria throughout France, says the *Echo de Paris*, is agitating the minds of the medical and sanitary authorities. When Dr. Roux announced his serum in 1894 there was universal jubilation. The belief that the

terrible malady would be vanquished at last brought joy to every household. Before the discovery of the serum the . mortality from diphtheria was 60 per cent.; after its use the death rate was reduced to 14 or 16 per cent., and it was hoped that the number of cases would diminish. But, unfortunately, this result has not happened in France, at any rate. The increase of cases and the proportion of deaths have been enormous. In Paris alone during the first four months of this year there were twelve hundred and sixtytwo cases and two hundred and twenty-five deaths, as many as twenty nine dying in a single week. Questioned as to the cause of this fresh outbreak, Dr. Roix attributed it to the fact that the serum way not injected soon enough. The chances of success are infinitely greater if the patient is inoculated at the beginning of the disease If the injection is administered on the first lay of the appearance of the malady the mortality does not exceed 2 per cent., on the second day 6 per cent., on the third 30 per cent, and on the fourth day 50 or 60 per cent.

Another authority, M Chanternesse, declares that most of the deats are caused in consequence of the serum nc being applied in time. The inoculation shoul, be made, he says, on

the appearance of the first suspicious sign, even before the decisive symptoms show themselves. Far better inoculate ten false cases than delay injection in one real case. Perhaps this theory is the first cause of the recrudescence of the malady. Many cases of sore throats, nondiphtheric, have been treated with the serum, and certain doctors, doubtful of the utility of the injection, also believe that it is not so inoffensive as its advocates say it is. In Berlin a child was inoculated who had not true diphtheria, and the German serum produced fatal results. Hence the reason, perhaps, for the timidity in early employing the serum. Delay in inoculation has been caused also by provincial doctors hesitating to apply old serum. To avoid this the Minister of the Interior recently sent a circular to every medical practitioner in France emphasizing the great importance of inoculating patients at once, and stating that the serum conserved its activity for a year.

## ANTITOXIN SUPERSTITION.

The Medical Brief says:—Science is a great iconoclast. It is continually questioning the authenticity of all inspiration, and justly so in matters which can be tried by scientific standards. Science has followed close upon the heels of invention—testing, criticising, accepting, rejecting, modifying and improving all things.

Fakirism of all kinds has always tried to escape this process of analysis, investigation and judgment, from the divine right of kings and Heaven-delegated powers of the early Church down to antitoxin in medicine to-day. The obscure, mythical and undemonstrable always rests its claim in some intangible, insubstantial property or power which lifts it beyond and makes it superior to ordinary tests.

It is singular that the enlightened and trained mind of the twentieth century medical man can receive the "scientific" explanation of antitoxin's therapeutic efficiency with gravity. He knows the facts. In his mind's eye he can see the manufacturer's employes injecting rotten bouillon into the horse, sickening the animal. Then he can see them drawing off the bad blood, separating the fluid serum and mixing it with carbolic acid to control its odorous decay and infective properties.



