days there is irritation of the intestines. In some instances this irritation is very great; and the greater it is, the more favourable the prognosis, as a general rule. After eating trichinous flesh, the patient generally begins to suffer within the first week, sometimes within two days. Now, if the irritation of the intestine be extreme, so that frequent and abundant evacuations are produced, the chances are very great that all, or nearly all, of the parasites will be discharged from the intestine. If so, the patient is safe. But if the irritation be not very marked, time is allowed for the young trichinæ to penetrate the intestinal walls, and enter the muscular tissue—from the end of the first to the end of the second week. This is the most dangerous period, the second stage of the disease. There is general pain and soreness, and œdematous swelling throughout the muscular system. At the same time typhoid symptoms manifest themselves; the patient is debilitated, his pulse rapid, skin hot, tongue and lips dry, and his general appearance closely resembles that of a patient with typhoid fever.

The passage of the worms into the muscular tissue, and the changes taking place there, are very apt to produce symptoms which result in the patient's death at or before the end of the fourth week. By that time the worms have become completely encysted, and after this the symptoms of irritation begin to disappear. The muscular system becomes habituated, as it were, to the presence of the parasite; and after a while the symptoms all subside; the patient can move his limbs as before, and then considers himself as entirely recovered.

How long may the worms remain in this quiescent condition in the interior of the muscular system? In 1863 Prof. Langenbeck of Berlin was operating upon a patient for a tumour of the neck, situated upon the surface of the sterno-mastoid muscle; in dissecting it off, the fibres of this muscle were disclosed, and it was noticed that their surface was covered with minute white specks. These attracted so much attention, that a portion was excised and submitted to the microscope, when the specks were found to be encysted trichinæ. After the patient's recovery, minute enquiries were made to ascertain at what time he had become infected. The result was that no such attack could be traced to a period less remote than eighteen years before. At that time, viz., in 1845, the patient, with several associates, was serving upon a committee of inspection of the public schools. After the inspection in a certain district, the committee partook at the village inn of a lunch, consisting, in part, of ham. Very soon after, all the members of the committee were taken sick with symptoms similar to those which we now know to be attributable to trichinosis. Two of them died, and the signs of poisoning were so marked that the inkeeper was arrested and held under this charge for a considerable time. Although finally the circumstances were not found sufficient for his conviction of the crime, yet they were considered as so much against him, and the prejudices of the community were so excited in consequence, that he was obliged at last to leave the place. On going over all the history of the case, so far as it could be ascertained at that time, it left an undoubted impression on the minds of the medical men who made the investigation, that at the time beforementioned, viz., in 1845, the members of the committee were infected with trichinæ from the ham used for their lunch: that two of them had died in consequence; and that Prof. Langenbeck's patient had recovered, and the worms remained encysted for eighteen years afterward. How much longer they may thus remain I do not know, but I see no reason why they should not last the remainder of the patients life. They produce in this condition no interference with the health, and hardly seem to interfere even with the vigor of the muscles.

This was the condition in which the trichinæ were nearly always found, prior to the year 1850, and from this fact it was supposed that the trichina was a harmless parasite. Such are the chief circumstances connected with the physiological history of the worm.

There still remains one question of a very important nature,—How great is the liability of the community at the present time to be infected, and what measures can be taken to prevent it!

The pig seems to be the animal naturally the most liable to trichinosis. He is certainly more liable to this disease than any other animal used for food, neither the sheep nor the ox being subject to it. It has been found in this country, by investigations in Chicago in 1866, that of all the pigs brought to market in that city, one in fifty is infected with trichina. This shows that we are all in danger of becoming infected by the use of pork, unless measures be taken, in preparing the meat, to destroy the vitality of the worms. Smoking and salting will not do this effectually. Only thorough cooking can be relied on as a safeguard. It is remarkable that most, if not all of the cases of trichinosis in this country, thus far have occurred among the Germans. This is because they have the habit, not otherwise common here, of eating ham, sausages, and even sometimes fresh pork, nearly or quite in the uncooked state. To kill the worms the ham must not only be salted and smoked, it must be cooked, and cooked thoroughly. Now, if you bear in mind that one pig in fifty is infected with trichina, you will perhaps think many times before putting between your lips a piece of pork, or ham, or sausage in the raw state; you will be certain that it is cooked; and not only that, but thoroughly cooked. One of the worst cases of trichinosis that has come under my observation was caused by eating pork chops which were rare or slightly underdone. Now, these chops were probably well enough cooked on the outside; but on the inside they were red and juicy, and the danger was precisely the same as if the patient had taken the meat entirely raw. In order to destroy the vitality of the trichina the meat should be subjected to a temprature of 212° F. Now, if you boil a ham for half an hour, or even an hour, you do not necessarily subject all parts of it to this temperature. In the central parts of the ham the temperature will not rise to that point unless the boiling has been long continued. I speak of this particularly, as it is a very important matter. A temperature of less than 160° F. does not destroy the trichina. As shown by direct experiment, therefore, a piece of trichinous meat, any part of which has not been raised to or above this point, is just as dangerous as if it were taken in the raw state.

These are the chief points of importance in regard to the trichina and trichinosis. The disease is fatal enough, frequent enough, and revolting enough to