

outside of it; or when the hernia occurs through a slit in the peritoneum. When the sac has ruptured it is sometimes difficult to find it, and such hernias may be diagnosed wrongly as having no sac.

The constricted part of the sac, the part that is engaged in the hernial orifice, is known as the neck of the sac. The part beyond, the larger, distended part, is called the fundus or the body of the sac. The coverings of the sac are the tissues outside of it, and they vary with the site of the hernia.

The contents of the sac also vary (see *Classification*). Every viscus in the abdominal cavity has been found to form the whole or a part of the contents of the hernial sac. The small intestine and omentum, and then parts of the large intestine, are most often found to form the contents of the sac. Intra-abdominal pressure is an important factor in determining not only the occurrence of a hernia, but also the contents of the sac. The size of the opening is also an important etiologic factor that must be reckoned with clinically. It is evident that a large viscus cannot protrude through a small opening until the intra-abdominal pressure, exerted for a sufficiently long period of time, has converted the small opening into a large one.

Patent fetal processes, weak spots, and intra-abdominal pressure are the factors of paramount importance in the production of hernia. When the hernial sac is closed by adhesions at its ring, it may be empty. It is then usually converted into a cyst containing serous fluid.

There is no race or class of people that is free from rupture. It has been shown, however, that hernia occurs most often among the Portuguese and Spaniards, while the United States Indians are least often the subjects of hernia. As mentioned above, hernias are met with early in life (in fact the child may be born with a hernia), and very late in life, but hernia occurs most frequently during the active period of life.

Various writers have endeavored to ascertain the prevalence of hernia among certain peoples by studying the records of schools, workhouses, infirmaries, and recruiting offices, but inasmuch as many suffering from hernia never apply for relief, it has been impossible to establish exactly the percentage of occurrence. It was estimated by Marcy that from one-eighth to one-sixteenth of the human race is afflicted with hernia. From the tables of the late J. H. Baxter, Surgeon-General, U. S. A., we learn that of 334,321 recruits, substituted, drafted and enrolled men of various nationalities examined, 16,901 were rejected on account of hernia. Of this number, over half (8,598) had right inguinal hernia. Malgaigne estimated that in France 3.6 per cent. of the total population was ruptured; while Berger claims that in Paris only .44 per cent. are ruptured.

Hernia occurs more often in the male than in the female, the percentage of frequency varying from 3 to 5. Mr. Kingdon, of London, stated that there are 6.7 per cent. of males ruptured to 1 per cent. of females.

Many interesting points in connection with the etiology and occurrence of hernia might be dwelt on in this connection, but it is not the intention of the author to do more than to call attention to a few of the more