

The water we drink may become, does in part become, part and parcel of ourselves. The metabolism always going on within us and resulting in growth, in the repair of waste, in the production of energy, requires that every tissue of the body should possess water. Thus, the blood that bathes every tissue, and constitutes about one twelfth of the body weight, is about 80 per cent. water. Of the body weight about 60 per cent. is water. The adult individual requires five to six pints of water, or its equivalent, daily. The consumption of certain foods, such as milk, which is 85 per cent. water, of fruits and vegetables which have a high water-content, lessen the volume necessary to take as a beverage.

With this knowledge of the part played by water in the animal economy and its presence everywhere throughout the system, it is not difficult to understand how polluted, foul water may affect health. We are all aware now-a-days that certain diseases, zymotic diseases as they are termed, are caused by specific bacteria or germs. It may suffice to say these pathogenic bacteria having gained an entrance into the system, through the water we drink, the food we eat or the air we breathe, may and often do cause disease within us. It is the function of the phagocytes, or white corpuscles of the blood, to combat with and destroy these germs, and in good health, when we have strong vitality, they perform their function well and keep us free from disease. But, with a lowered vitality when the host of intruders is too great and strong to battle with, they may be beaten in the warfare and we succumb. Among water-borne diseases the one we have to fear most is typhoid fever. The excretal discharges of its victims are loaded with its bacilli and when such waste finds its way into a water supply the disease is disseminated and an epidemic results. Herein lies the chief and great danger in using a supply polluted with sewage or excretal waste. It must, however, be added that water is not the only vehicle which conveys this disease; the ubiquitous house-fly, as we know, must now bear its share of the blame.

But there is another danger in impure water, though of this bacteriology takes no note. I refer to the presence of certain poisonous substances, the products of the decomposition of organic matter—either of animal or vegetable origin. There is good evidence that such polluted water may cause headache, nausea, indigestion, diarrhoea, lassitude and generally lower the vital tone of the system. It is quite true that such toxic compounds have not been isolated, but I might answer that such is the case with many ptomaines, organic compounds occasionally occurring in our foods—and especially in those