

they are apt to become bilious. The nature of the alternation is hard to determine, because our knowledge of nutrition generally is insufficient.

Brunton mainly associates all this with the liver. He points out that the liver is the porter at the gateway of the system stationed there to prevent injurious substances which have been absorbed from the intestines from reaching the general circulation. The substances are detained there, either destroyed, transformed or excreted by it unchanged into the intestines. Some may thus pass away in the fæces, but some may be reabsorbed, and so they go the round from intestine to liver, and liver to intestine until the amount may become so great that the liver is no longer able to deal with it and they pass out into the general circulation.

It would appear as if there was a certain period required for this accumulation. The period differs, and this even in the same individual, but will be shorter when he is fed on a highly nitrogenous diet.

This action of the liver is demonstrated by the fact that double the quantity of strychnine, veratrine, morphine, etc., is required to kill an animal if injected into the portal vein than is necessary to do so when injected into the jugular, and three times as much curara is required.

It has the same effect on peptones and ptomaines, compound ammonias and weak acids.

It has been shown that albumoses and peptones may act as powerful poisons but for this so-called "sentinel action" of the liver. By putting a man then upon a non-nitrogenous diet you lessen the proportion of these substances and so increase the intervals between the headache more and more.

*Absorption from the liver is greatly altered by emotions.* So much is this the fact that sometimes after emotions a person may become completely jaundiced.

Therefore, we should expect that anything which was circulating with the bile in the liver would be rapidly absorbed in consequence of emotion. We find that anxiety and other depressing emotions are apt to bring on headache. We have, therefore, good reasons for attributing many headaches to the presence of abnormal constituents circulating in the blood, and experience has shown that this is so since we are able to relieve headache by a mercurial cholagogue followed by an aperient saline.

So much for the general condition of poisoning by toxins, but there are other injurious substances even less known. Many of them are