

water, which we have shown to be in essential union with the weak albuminous matter of the chyle, is separated from that state of union, and is expelled along with the carbonic acid gas, which is continually escaping from the lungs: the weak and delicate albuminous matter of the chyle, is thus converted into the strong and firm albuminous matter of the blood. We are next brought to consider the process of respiration.

The blood, in its course through the lungs, emits carbonic acid gas, and assumes a florid *arterial* colour. In the lungs, the blood also, according to the principles of gaseous diffusion, absorbs a portion of oxygen from the air of the atmosphere. The oxygen thus absorbed, remains in some peculiar state of union with the blood, (Query, as oxygenated water, or some analogous compound?) till the blood reaches the ultimate terminations of the arteries. In these minute tubes the oxygen changes its mode of union: the oxygen is converted into carbonic acid by combining with a portion of carbon derived from the albuminous principles of the blood; at the same time, heat is extricated. Two distinct alterations take place during the union of the carbon with the oxygen in the ultimate terminations of the arteries: First, a portion of the albumen contained in the blood, is supposed to be reduced to the state of gelatine; which gelatine is appropriated