



4a. Carbon Dioxide Concentrations in the Body are Correlated to a Decrease in Life Span

All human food derives ultimately from photosynthesis in plants. This is true also for the foods of other mammals and the foods of other animals. Photosynthesis is a process whereby light energy from the sun is utilised by plants for the production of carbohydrates. The carbohydrates are produced in plants from water in the leaves and carbon dioxide gas derived from the atmosphere (carbohydrate = carbon dioxide hydrated). During photosynthesis, the splitting of water results in the release of oxygen (O₂). The carbohydrates formed in photosynthesis provide chemical substrates for the synthesis of other food substances such as proteins and fats. Photosynthesis in plants can be represented by the following reactions:



The splitting of water by sunlight



After the consumption of food by humans and other mammals, a portion of the food is digested and absorbed into the body. The remainder of the food is undigested, completes its passage through the intestinal tract and then passes from the body as faeces. The digested portion of food is metabolised inside body cells back to carbon dioxide. As a consequence of this, the concentrations of carbon dioxide gas inside the body cells are very high (at least 60,000 parts per million). In humans and other mammals, the majority of carbon dioxide is transported eventually to the lungs via the blood and is breathed out from the lungs to the atmosphere. Some carbon dioxide can pass to the atmosphere through the skin. In fish, carbon dioxide is removed from the body through the gills.