

HYGIENIC AGENTS, OR THE CONDITIONS ON WHICH HEALTH IS BASED. AIR.

This element is the first requisite to life and health. Without air, no living thing could survive beyond a very brief space. Air is the first thing required by every being at its birth. The blood, while circulating through the lungs, comes in contact with the air contained within the air cells and passages, and receives oxygen there from, thereby becoming vivified. **This vivification of the blood is very essential to the maintenance of life.** for the amount and intensity of the vital force possessed by the flesh tissues depend largely upon the proper and constant aeration of the vital fluid, which is principally effected by the lungs, and **can only be properly performed during full and free respiration.**

The part played by oxygen in the maintaining of life, so far as is known, is this: It burns up the broken-down tissues, and thus converts them into carbonic-acid gas and ashes. The gas is immediately, absorbed by the red corpuscles of the blood, and is by them conveyed to the lungs, where it is exchanged for oxygen. **It is this exchange of carbonic-acid gas for oxygen that constitutes aeration.** The ash which is left after the burning of the broken-down tissues, is held in solution by the serum of the blood, and is by it transported to the various organs of depuration, by which it is separated from the blood and discharged in the urine, perspiration, bile, and fecal matters. **If oxygen is not received into the system in sufficient quantity, the broken-down tissues are not removed from among the living ones as they should be, and in consequence, their presence prevents the formation of new tissue, and thus the body is not properly maintained.** On the other hand, **if oxygen is received into the system in sufficient quantity, all the worn-out matter is burned, or oxidized, and ample opportunity is given for the rebuilding or repairing of all parts.** Another benefit derived from the oxidation of the wastes of the body is **the evolution of heat;** for it is by this process that the animal heat is produced and maintained. The demand for oxygen to assist in the work of disintegration as above described, is so great that an amount of blood equal to the entire volume of that contained in the body is carried to the lungs every three or four minutes for the purpose of throwing off its load of carbonic-acid gas and receiving a fresh supply of oxygen. Now, as air sustains so important a relation to life and health, it is highly important that it should be received into the lungs in as pure a condition as possible. **For this reason, every person, whether in health or in disease, should be located where he will not inhale the noxious gases that are thrown off** by decaying vegetable or animal substances, nor those that arise from the chemical combination of minerals; and **he should always see that his living and sleeping rooms are well ventilated both day and night.**

LIGHT.

The sun is the great source of life for all vitalized structures or creatures upon the earth. Without its genial influences, nothing that now lives could long survive, and no more vitalized structures, either vegetable or animal, could be produced. The plant cannot grow when deprived of sunlight. Place it in a dark cellar, and feed it with the choicest of fertilizers, and water it with the best of plant drinks; yet if deprived of sunlight, it will not flourish, but gradually weakens. Its bright colors fade, it soon ceases to grow, and finally dies. This is also true of every member of the animal kingdom. Deprive them of the influence of sunlight, and they soon lose their activity, and their vitality gradually diminishes. The same is also true of human beings. Those who are most in the sunlight are the most hardy of the race.

A child can be raised no more successfully in the dark, or in deep shade, than can a vegetable. Look at those who are reared in the darkened rooms and shaded streets of our crowded cities. They are puny, sickly persons. The mortuary tables show that one-half of the offspring of those who live in populous cities die under five years of age, and that very few of the other half reach the age of forty years; while of those who are born in the crowded tenement houses or in habitations situated on dark or shaded streets, very few reach manhood or womanhood. The majority pass into the grave in childhood, and of those that

survive, the major part have but feeble constitutions and are always ailing. Look at the daughters of the wealthy. Why is it that they are so enfeebled? The fact that they are kept in from the sunshine lest their skin should become tawny, and the additional fact that the sunlight is shut out from their dwelling rooms and parlors lest it should fade the rich carpets and injure the elegant furniture, is one of the chief reasons why the bloom of health disappears from their cheeks.

As a hygienic agent, sunlight stands second to very few others. So important is its influence to the manifestation and maintenance of life and health that human beings should ever seek to spend as much as possible of their time in the light.

Throw open the shutters and let in the sun shine if you would have health. The sick, especially, should be allowed to enjoy all the benefits which are imparted by this health-giving agent. There are very few diseases from which the patient would not recover quicker in a light room than in a darkened one. Light imparts cheerfulness, confidence, and trust; while darkness, or deep shade, always produces a tendency to gloom, despondency, and dread, in the sick or nervous person.

Sunlight and pure air serve to prevent dampness and the formation of vegetable mold, and also serve to drive these from every nook and corner into which they are permitted to enter.

In fact, these two agents— **sunlight and pure air**— occupy so important a position as hygienic agents that very many diseased individuals can never regain health until they adopt the plan of living much of the time in the open air, or at least where they shall receive the full benefit of the sun's genial rays and the invigorating influences of a pure atmosphere. Hence, we say to those who have charge of the sick, Admit the sunlight freely to your patients at all times, unless they have weak eyes or are uncommonly nervous; but even then do not shut out all light.

The Hygienic Family Physician: A Complete Guide for the Preservation of Health, and the Treatment of the Sick without Medicine, pg. 2-11 by M. G. Kellogg