

## **Fasting and Rejuvenation**

by Alec Burton, M.Sc., D.O., D.C.

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Rejuvenate means to restore to youth, to make young or fresh again, to become young again, to acquire renewed vitality, the renewal of youth — physical, mental and spiritual. The hygienist uses the term, “rejuvenation” to describe the partial restoration of youthfulness to the tissues and organs of the body that may be achieved through hygienic care that includes as a fundamental technique — fasting.

Rejuvenation does not mean turning back the hands of time; it does not refer to turning back the clock. It emphasizes the removal of some of the effects of poor living habits that have accumulated over time and had an adverse effect upon the health and life of the organism. It is very important that we make a distinction between time and things that take place in time. Actions take place between entities. Neither time nor age is an entity. If water constantly drops on a stone, it will wear it away, even the hardest stone, if continued for a long enough period. But it is important to appreciate that it is the water dropping on the stone that wears it away and not the time.

Similarly, old age is really not a time of life but a condition of the organism. It is not time that produces the changes in the body that are called aging. These changes merely take place in time, but they are due to other causes. When we see gallstones, osteoporosis, enlarged prostates, arteriosclerosis and other diseases of old age, these are not the effects of time but of causes, which operate in time. If we accept the erroneous belief that there is something in the turning of the earth on its axis to age the body, so long will we fail to understand the subjects of senescence and rejuvenescence.

It is well established that the subject of senility can occur prematurely. In fact we see it everyday. People are dying of old age at ages ranging from 30 to 60. Very few people are anything more than unhealthy specimens at age 60.

To reiterate, the passing of years is not the cause of aging and we do not seek to turn back the clock in order to rejuvenate the body. What we need to do is to exploit the body's own power of recuperation and rejuvenation. Similarly, this too must be done in time. We cannot rejuvenate or recuperate the body rapidly or instantaneously. Rejuvenation can occur only through the regular and normal orderly biological processes, once the causes of impaired health have been removed. Aging is a process of animate existence caused by all the impairing materials and influences that have operated in the life of the individual since it began. It is slow and progressive in its development and it is not possible to identify exactly when it commenced.

It is inevitable that if we live long enough we shall get old. It is also inevitable that we shall die. Nobody lives forever. There are mechanisms within the organism constantly operating that will result in our eventual demise. But very rarely do people die from these causes. Most of the causes are well within the individual's own control and they relate to lifestyle. The longer I

practice Hygiene the more convinced I am of the benefits of fasting. Its universal applicability and the remarkable regenerative and rejuvenative processes that occur are awesome.

Professor Anton J. Carlson, a physiologist at the University of Chicago states: “It is possible that the striking beneficial after-effects of prolonged fasting may be due to the fact that the non-essential tissue used up in starvation (fasting) may include abnormal accumulations of some intermediary products of metabolism.”<sup>1</sup> This statement by Professor Carlson corroborates what hygienists have said for decades that when the tissues are autolysed during a fast, the wastes retained in the tissues are returned to the circulation and subsequently eliminated.

The phrase, “intermediary products of metabolism,” is merely another way of saying toxemia, which we as hygienists define to mean poisoning by retained body waste. Excretion or elimination is inhibited or inefficient through enervation or being run down or debilitated, so that normal waste products of body metabolism accumulate in the blood and lymph. These toxins cannot be allowed to remain and saturate the blood and tissue fluids so they are stored or deposited in the less vital tissues of the organism, the less important structures.

Sylvester Graham thought that the preferred depository was the fatty tissues. It is now well known that toxins of all types — self-generated, heavy metals, pesticides — are stored in numerous tissues of the body, including the bones. Some are known to accumulate in the liver, kidneys and glands. It is amazing what may be expelled from the body while fasting; a variety of substances are excreted and eliminated through many different channels, but especially the liver. Large quantities of abnormal bile are often discharged into the duodenum, and some of it may regurgitate to the stomach and there is subsequent vomiting. Sometimes there is diarrhea with the discharge of large quantities of fetid matter.

In many cases men and women have been restored to sexual potency and fertility by fasting and in some cases after several years of dysfunction and sterility. Even repeated short fasts of two or three days have shown remarkable rejuvenating effects.<sup>2</sup>

### **Fasting one day a week**

I am not an enthusiast of very short fasts; especially am I opposed to the practice of fasting one day a week. I think this is dangerous and positively inadvisable. During the first day of fasting blood glucose levels fall and glycogen reserves are depleted, the body then draws on its protein tissues to maintain glucose levels (gluconeogenesis). Subsequent to this adaptation is the utilization of ketones derived from fat and once this is established the fast will continue with its major source of energy being fat derived rather than protein derived. The short-term fast depletes body protein. During these adaptations you are losing protein. You have not reached the stage where you are using essentially fat, the properly adapted fasting state. So I personally believe that fasting one day a week is a very bad practice. Aside from that, one of the basic reasons for fasting is anorexia, loss of appetite. You go through the medical literature and you find in the major diseases, especially acute diseases, one of the first symptoms to arise is anorexia, loss of appetite the body is telling you unmistakably, “I don’t want food. Don’t eat.” As anorexia is the indication, it is hardly likely that every Wednesday or every Monday or whatever, you are going to be anorexic. You may have a roaring appetite but it is your fast day so, despite this, you

abstain. Is this listening to what the body is telling you?

## **Benefits of fasting**

Professors Carlson and Hoelzel also demonstrated that, among some animals, maximum lifespan may be increased by 20 percent to 30 percent by intermittent fasting.<sup>3</sup> Professor Sergius Morgulis of the University of Nebraska performed fairly exhaustive experiments for the time — 1920s. He demonstrated that while radical cellular changes occur, they are not impaired structurally. He pointed out that such fasted cells had the capacity for assimilation and growth which characterizes the cells of embryos and young animals, demonstrating beyond doubt that fasting rejuvenates.<sup>4</sup>

Professor Carlson spent many years investigating fasting and especially the mechanism of hunger.<sup>5</sup> Dr. Margaret Kunde, who worked in the Department of Physiology at the University of Chicago with Professor Carlson, showed that a fast of two weeks temporarily restores the tissues of a man of 40 to the physiological condition of the tissues of a youth of 17. Dr. Kunde says: “It is evident that where the initial weight was reduced by 45 percent and subsequently restored by normal diet approximately one half of the restored body is made up of new protoplasm. In this there is rejuvenescence.”<sup>6</sup>

How long this youthful process can be maintained no one knows and unless we have a knowledge of the causes of the aging process which are identical with the causes of impaired health, we cannot understand the processes. If the fasting subject simply returns to his accustomed habits of living, he will soon return to his accustomed state of health. Whether or not the fast is effective in regeneration and rejuvenation is largely dependent upon the lifestyle following the fast; a returning to prefast habits is to encourage a return to prefast health. The famous novelist Upton Sinclair once wrote: “The great thing about the fast is that it sets you a new standard of health.”<sup>7</sup>

While regeneration of the body is a ceaseless process, rejuvenation is certainly not. It can be achieved only by fundamental and radical lifestyle changes. But fasting enables the body to abort the processes of degeneration and effect a higher standard of health. We must learn that the body is able to break down its structures, reuse and rearrange the constituents to bring about changes in quality of tissue. Fasting rejuvenates — the feeling, the look, the utility of function; an increased energy and capacity which is visible through the disappearance of many lines, wrinkles, blotches, pimples and pathological pigmentations; the skin becomes much more youthful and acquires a better color and texture; the eyes are clearer and brighter; one looks younger and more vigorous. The visible regeneration and rejuvenation of the eyes, skin and superficial tissues is allied to the evidence of similar but invisible rejuvenation throughout the body.

It is important to note also that it is not true that the hygienic regime will only be effective if started early in life. Humans can achieve regeneration and rejuvenation at any age. Studies performed at the University of California Medical School in Los Angeles have demonstrated substantial lifespan benefits in mammals even when restriction was undertaken in mid-adulthood.<sup>8</sup>

## References

1. A.J. Carlson and F. Hoelzel, "Nutrition, Senescence and Rejuvenescence." Public Health Reports, Vol.67 No.2. February 1952, Chicago.
  2. H.L. Taylor, "American Journal of Physiology." pp143-148, 1945.
  3. A.J. Carlson and F. Hoelzel, "Apparent Prolongation of Lifespan of Rats by Intermittent Fasting." Journal of Nutrition, 31:363, 1946.
  4. Sergius Morgulis, "Fasting and Undernutrition." University of Nebraska, E.P. Dutton, New York, 1923.
  5. A.J. Carlson, "The Control of Hunger in Health and Disease." University of Chicago, 1916.
  6. Margaret M. Kunde, "The After Effects of Prolonged Fasting on the Basal Metabolic Rate." Journal of Metabolic Research 1923, 3, 399 - 449.
  7. Upton Sinclair, "The Fasting Cure."
  8. R.H. Weindruch, J.A. Kristie, K. Cheney and R.L. Walford, "The Influence of Controlled Dietary Restriction on Immunologic Function and Ageing." Federation Proceedings U.C.L.A. 389:2007, 1979.
- Sylvester Graham, "The Science of Human Life."