FASTING: BACK TO THE FUTURE

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Although the notion of electing to go without food for prolonged periods of time to improve one's health has not been something commonly considered in recent times, fasting has a long and important history. In fact, fasting played a vitally large part in early human survival. Fortunately, this ancient knowledge is making a dramatic comeback and is beginning to transform the way modern healthcare providers view their responsibilities to patients.

Human beings have the capability to survive extended periods of fasting. This was certainly known in our hunter-gatherer days, since many humans were forced to live through periods when little or no food was available to them. However, since the advent of agriculture and increasing technological advancement, modern humans have largely lost their awareness of this powerful, innate capability.

For example, the 1937 edition of The New Standard Encyclopedia stated that for humans, "Generally death occurs after eight days of deprivation of food." By 1956, this grim pronouncement inched somewhat closer to reality. That year's edition of the American Peoples Encyclopedia stated that survival time in men during water-only fasting ranged from 17 to 76 days.

In actuality, the "authorities" writing in these encyclopedias had no idea what they were talking about, but their conclusions are consistent with what most people might think. However, if we go back in time to earlier writings, we see that more "primitive" cultures were often more aware of the extent of our fasting capability. In the Bible, for example, Moses, David, Jesus, and Elijah were said to have fasted for up to 40 days.

Physiological Benefits of Fasting
Fasting can be thought of as a period of profound rest, during which time your body is free to rapidly undertake a wide variety of beneficial physiological activities, some of which are described below.

1. Neuroadaptation
Fasting helps your taste sensors adapt to a low salt intake. By allowing your body to "neuroadapt" to low-salt food, fasting rapidly facilitates the adoption of a health-promoting diet. This process of neuroadaptation appears to take place more rapidly during fasting than merely eating a low salt diet.

2. Enzymatic Recalibration
During fasting your body induces enzymatic changes that can affect numerous systems ranging from detoxification of endogenous and exogenous substances to the mobilization of fat, glycogen and protein reserves. These changes seem to persist after the fasting process, which may explain some of the dramatic clinical changes seen in patients after fasting.

3. Weight Loss
Although fasting is not generally recommended as a primary weight loss strategy, weight loss is a predictable consequence of fasting. Most people average a loss of approximately one pound per day over the course of a fast. (When weight loss is your primary concern, a health-promoting diet coupled with exercise is usually your best approach.)

4. Detoxification
Fasting is generally thought of as a tool to facilitate detoxification, promoting the mobilization and elimination of endogenous substances such as cholesterol and uric acid and exogenous substances such as dioxin, PCBs, and other toxic chemical residue.

5. Insulin Resistance
Fasting appears to have a profound effect on insulin resistance, which is thought to be intimately involved with diabetes and high blood pressure. When your body produces adequate insulin, but it is ineffective due to resistance at the cells in the liver and elsewhere, your blood sugar levels rise. This can lead to serious clinical consequences. Fortunately, after a period of fasting, this problem is often dramatically improved.

6. Natriuresis
Water-only fasting induces a powerful natriuretic effect, which allows the body to eliminate excess sodium and water from your body. This process allows for the resolution of chronic problems with edema and helps reduce the increased blood volume associated with high blood pressure.
7. Reducing Gut Leakage
When chronic inflammation involves the intestinal mucosa, a condition arises whereby small particles of incompletely digested foods can be absorbed into the blood stream. This introduction of foreign peptide molecules to the blood stream may stimulate an immunological cascade of effects collectively known as gut leakage. In genetically vulnerable individuals, gut leakage may be associated with the aggravation of numerous clinical entities including arthritis, colitis, asthma, allergies, and fatigue.

8. Sympathictonia
Hypersympathictonia (increased tone of the sympathetic nervous system) is thought to be associated with many problems ranging from digestive disturbances to anxiety disorders. Fasting appears to have a profound normalizing effect on the overall tone of the autonomic nervous system.

In all there are many mechanisms through which fasting may be having its profound effect. Further research into these and other areas should prove illuminating.

A Serendipitous Survival
In light of the clear misunderstanding of fasting by the medical profession, the unexpected, successful fasting experience of Henry Tanner, M.D., is truly remarkable. In 1877, Dr. Tanner was a respected, middle-aged physician living in Duluth, Minnesota. He had suffered for years with rheumatism and had consulted with seven fellow physicians, all of whom considered his case to be "hopeless." He also suffered from asthma, which chronically disrupted his sleep. He spent his waking hours in constant pain.

Tanner had been taught in medical school that humans could live only ten days without food and in this knowledge he found solace. Not believing in suicide, he determined that he would simply starve himself to death. As he stated later, "Life to me under the circumstances was not worth living... and I had made up my mind to rest from physical suffering in the arms of death." But fate had an agreeable surprise for Dr. Tanner. By unwittingly invoking a constellation of health-promoting responses associated with water-only fasting, he rapidly recovered.

By the fifth day of his fast, he was able to begin to sleep more peacefully. By the eleventh day, he reported feeling "as well as in my youthful days." Fully expecting that by this point he should be near death, he asked a fellow physician, Dr. Moyer, to examine him. Not surprisingly, Dr. Moyer was amazed.
According to Tanner's recollection, Moyer told him, "You ought to be at death's door, but you certainly look better than I ever saw you before." Henry Tanner continued to fast, under Dr. Moyer's supervision, for an additional 31 days, a total of 42 days in all.

When fellow physicians heard his story, which was sensationalized in the press, they responded with disbelief and intense criticism. Though widely rebuked as a fraud, Tanner at least had the last laugh. After his fast, Tanner had no symptoms of asthma, rheumatism, or chronic pain and lived a full life until he died at the age of ninety.

**Human Fasting Capabilities**

Many fasts of longer than 100 days have been documented in recent scientific literature, the longest of which was 368 days. At the TrueNorth Health Center in California, we routinely supervise water-only fasts of up to 40 days, and in certain circumstances, even longer.

In our experience, fasting has never been lethal and is often remarkably helpful. During our 20 years of supervising the care of more than 5,000 patients, fasting has proven to be both safe and effective. It has provided many patients a new lease on life.

**Reawakening to an Ancient Truth**

Throughout most of the 20th century, which witnessed a period of remarkable medical innovation in surgical techniques, radiation therapies, and new "miracle" drugs, the self-healing mechanisms that are unleashed during water-only fasting were largely unappreciated.

However, as the century drew to a close, something extraordinary began to occur. After decades of collective awe of modern medicine and its purveyors, a strong undercurrent of disillusionment began to appear. There came the beginnings of a philosophical revolution that would lead health science in a promising new direction.

This new direction centers on the realization that health and healing are best supported when the biological roots of our nature are understood and respected. This new philosophical approach is based on the awareness that health and healing are natural processes. As a result, the focus of attention has increasingly shifted away from the traditional medical emphasis on drugs and surgery toward an exploration of the circumstances and requirements necessary to unleash and enhance these natural processes.
Fortunately, unlike health problems in the past, including such phenomena as water-borne diseases, nutritional deficiencies, and epidemics of tuberculosis and pneumonia that at one time were confusing puzzles - our present day epidemics of obesity, heart disease, high blood pressure, diabetes and cancer are not nearly so mysterious. It is becoming increasingly clear that the majority of present day health problems are the result of modern dietary excesses.

Simply put, most of our health problems are the result of our eating too much of the wrong things. We ingest too much fat and protein (especially animal fat and animal protein); too much refined sugar and other refined carbohydrates; and too many drugs, including tobacco, coffee, tea, alcohol, and soda. It is not surprising that nearly 50% of American teenagers are overweight when you consider that the average teenager consumes 25% of his or her calories from soda pop.

In the face of the current unprecedented epidemics of disease caused by dietary excess, it is understandable that the ancient healing method of water-only fasting is beginning to make intuitive sense to many people. Going without food for a period of time provides the ultimate opportunity for the reversal of the consequences of dietary excess, a chance to let an overfed and overburdened body take steps to restore health.

Rest assured that the appeal of fasting is not based solely on mere intuition. With the recent publication of the first-ever large-scale study conducted on the use of water-only fasting with life-threatening illness, what was previously considered intuitive has become scientifically apparent. Water-only fasting offers extraordinary potential for health and healing, and for some conditions it appears to be the most effective treatment available.

**Fasting and High Blood Pressure**

High blood pressure (also known as hypertension) is the leading contributing cause of morbidity and mortality in industrialized societies, and is the leading reason for visits to doctors and for the use of prescription medication. It is diagnosed when a patient's pressures exceed 140/90 mm Hg. The human and financial costs of this condition are staggering.

In 1984, doctors at the TrueNorth Health Center began to investigate the use of fasting in the treatment of this devastating condition. Our study involved 174 high blood pressure patients, all of whom were admitted to the Center for treatment involving water-only fasting.
The results of the study were astonishing. Every patient experienced blood pressure reductions sufficient to eliminate the need for medication, and over ninety percent of patients achieved completely normal blood pressure. A stunning reduction of over 60 points in systolic (upper) blood pressure was noted in those patients with highly elevated pressures (known as Stage III Hypertension), where systolic pressures are greater than 180 mm Hg. These results represent the largest effect size ever shown in lowering blood pressure, and they are estimated to be five times the effect expected from medications alone.

With assistance from our colleagues at Cornell University, our study, "Medically Supervised Water-only Fasting in the Treatment of Hypertension" was completed and accepted for publication by the peer-reviewed and indexed Journal of Manipulative and Physiological Therapeutics. It appeared in the June, 2001 issue of JMPT.

A second study, also conducted at the Center, was recently accepted for publication in the Journal of Alternative and Complementary Medicine. In this investigation, we evaluated the effect of water-only fasting on 64 patients admitted with so-called "borderline" hypertension. These are individuals who have systolic blood pressures between 120 and 140 mm Hg.

Patients with blood pressures in this range are often led to believe that their blood pressures are "normal." For example, a patient with a systolic blood pressure of 138/88 would be considered "normal" by conventional medical standards, despite the fact that they are five times more likely to die from a heart attack or stroke than an individual who has a systolic blood pressure of 110 mm Hg. Sixty-eight percent of all deaths attributed to the effects of high blood pressure occur in individuals whose systolic blood pressure is in this range.

The patients in our second study had a mean reduction in systolic blood pressure of 20 mm Hg. The average patient in the study, beginning with a systolic blood pressure of nearly 130 mm Hg, ended his stay with systolic blood pressure of just below 109 mm Hg. This represents a very substantial improvement in health. As just stated, he is now five times less likely to die from a heart attack or stroke than he was before.

**Fasting Studies Draw Attention**

As a result of the publication of these studies, the fasting program at TrueNorth Health Center attracted the attention of the International Union of Operating Engineers (IUOE), a
large, national labor union. In March 2001, the Center's residential health education program, including the supervision of water-only fasting, became a fully covered medical benefit for all union members and spouses who have high blood pressure or diabetes.

In conjunction with this association with IUOE, the doctors at the Center are conducting a third fasting study. It is a prospective study with long-term follow-up to evaluate the use of fasting in the treatment of high blood pressure and diabetes. We are looking not only at the clinical outcomes of the patients (improved health and reduced morbidity), but also the effect on long-term costs of care for the patients who undergo fasting compared to those who choose conventional medical care.

The initial results are outstanding. Based on data from the first group of subjects with one-year follow-ups, the average cost reduction for fasting patients compared to patients receiving conventional medical care appears to be substantial. Once a large enough number of patients have completed the program and the long-term outcomes are calculated, we expect to publish additional papers documenting what appears to be a tremendously cost effective approach to managing these high risk, high medical cost, high blood pressure and diabetes patients.

Hope for the Future
Hopefully, these results of the TrueNorth Health Center's studies will be a contributing force in both a philosophical and practical revolution in health care. With clear and convincing evidence to guide them, and substantial cost savings to motivate them, other unions and insurance companies may decide to encourage and support the use of fasting for those they serve. In doing so, they could make available to the millions of sick and suffering patients the most profound health rediscovery of our time: the understanding that fasting allows the body to heal itself without the risk and excess cost associated with conventional medical care and drug use.