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CONSERVATION OF LIFE

CONSERVATION of life is foremost among material things in the minds of men. Benjamin Disraeli, one of history's most distinguished practitioners of political science, remarked: "the health of the people is the foundation upon which all their happiness and all their powers as a State depend."

We know of nothing that causes more unhappiness than being subject to disease and the threat of unseasonable death. Our bodies need to be in the best possible condition for both manual labour and thinking. The penalty for weakness is severe.

Still, many of us have gone through five, ten or twenty years of suffering, all but forgetting the sensation of genuine health. Some are careless, some are fatalistic, some forget that science marches on and that a disease which was untouchable a few years ago may now yield to enlightened chemical or surgical or other therapy.

No man should take his illness for granted.

This century has experienced the greatest advance in knowledge of health and disease of any period in history. As Will Durant says satirically, but truly, in *The Mansions of Philosophy*: "Our wealth allows us to treat and cherish and master illnesses from which primitive men died without even knowing their Greek names."

Human life has been lengthened through the application of scientific knowledge and the improvement in our standard of living. Persevering and profound research has increased our knowledge of effective diagnostic and treatment methods. Progress in public health measures is saving millions of lives every year. Engineering and technology add their important contributions in the way of improved housing, filtered water, sewage disposal, refrigeration, drainage to control mosquitoes, and in a hundred other ways.

In These Times

Nevertheless, a large number of people still die prematurely, and it is to draw attention to the possibility of conserving these lives that this Letter is written.

There will always be some small tax that our bodies must pay for the privilege of living in this boisterous age. We seem to be always under tension even about trivial matters. We indulge in compulsive activity, and when we are asked to tell why we do so we find no real reason for pushing and being pushed. Some of our feverish energy, we suspect wryly, is merely an escape from being quiet.

"Stress" is a word frequently used by medical people to cover the conditions — external or internal, physical or emotional — that are imposed upon the human body in these times. Professor Hans Selye, of the University of Montreal, is quoted as listing three diseases which are examples of the effect on our bodies of stressful living: thyrotoxicosis, a disease resulting from excess activity of the thyroid gland; duodenal ulcer; and hypertension, or high blood-pressure, of the variety which comes from causes other than diseased kidneys.

Not all stress can or should be avoided. We cannot always live under glass. It is when we allow stress to continue without taking common sense steps to relieve it that we suffer needless damage.

Price and Penalty

Neglect of health may expose us to disease which brings in its train a crushing burden of expense. Preventive attention does not cost nearly so much.

In Canada the cost of health care is substantially shared by all citizens through public health programmes financed out of taxes. Though under our constitution the health of citizens is a provincial government responsibility, the federal government stepped into the picture six years ago with a national programme. As an outcome, thousands of hospital beds have been made available, medical research has expanded, training has been provided for public health workers, and long strides have been made toward control of certain diseases such as tuberculosis, cancer, mental illness, and other miseries that afflict mankind.

A sickness survey was made in Canada from the autumn of 1950 to the autumn of 1951, results of which

were published recently by the Dominion Bureau of Statistics.

Out of an estimated 4½ million family units, there were 621,000 which spent nothing for medical, dental, hospital or any other sort of health care during that period, while 757,000 spent less than \$20. Beyond that sum the figures were:

between \$20 and \$49	938,000
\$50 and \$99	994,000
\$100 and \$199	839,000
\$200 and \$499	343,000
over \$500	63,000

As will be seen, family units spending \$100 or more in the year made up 27.4 per cent of all family units in Canada.

While the cost of repairing and maintaining health may be high, the price we pay for neglect is heavy. Dr. Arnold A. Hutschnecker remarks in his book *The Will to Live* on the number of people who devote the first half of their lives to making money, only to spend it in the second half getting back their health.

Physicians often marvel at the indifference of many intelligent persons to serious thought about the common functions of their bodies. Doctors, who have been long enough tinkering careless humans to have grown a little worn in the effort, lament the way people have of taking no notice of disease until it is upon them in full force.

Illness begins usually as a slight deviation from normal function. That is where the wise person becomes alert, and takes steps to restore normality. The unwise person resents anything that meddles with the routine of his life. He belittles the idea of doing something effective about it, even when symptoms clamorously intrude on the pattern of his daily business. Sometimes, one doctor remarked reproachfully, this goes on until the scene is more fittingly presided over by a clergyman than by a physician.

We may not go so far as Samuel Butler in his *Utopia*, wherein if a man becomes subject to ill health before he is seventy years old he is tried before a jury and sentenced to public scorn, but we can say for certain that by refusing to accept the reality of human frailty, and by postponing medical consultation until a crisis forces it, many of us are bankrupting our lives of the health happiness we might enjoy.

Worry about Health

Taking thought about preserving health does not by any means imply worry about health. The ordinary routine of digestion goes on very well without any help from our brains, but we can demoralize it if we fret and meddle. Some doctors have said that the most trying patients are those who have read up on their ills, real or fancied. They are likely to be carried away by delusions, as in the thought Shakespeare expresses: "In the night, imagining some fear, how easy is a bush supposed a bear."

Some people worry because they think they may have an incurable disease. They delay going to a doctor, avoiding the moment when their fear may be confirmed. They contribute in this way to their self-destruction. If there is a disease the delay has wasted time in which it might be tackled and arrested or cured, while if there is no disease the continued fear has worn them down in needless anguish.

Some amount of fear is necessary to survival in this world. Rashness does not pay off any more than does feverish concern. But the thing to do about fear is to face it, recognize it as a signal of warning, and then start in to fight the cause of it. Passive invalidism is a singularly unattractive state of life.

What we need is a felicitous compromise between over-care and not caring.

Some persons must readjust their habits so as to live within their competence of physical resources. Certain activities may have to be eliminated, and others will have to be cut down. But most people will find that by giving attention to rest and relaxation they may live fuller lives than before. No imposing schemes of recreation are needful. Pepys, our favourite diarist, relaxed from his duties as virtual builder of the British navy by pulling off his stockings and dangling his feet in the water while his launch was rowed back to London from the naval dockyard.

The Physician's Place

The office of Medicine is but to tune the curious harp of man's body and to reduce it to harmony. The physician seeks to make sick folks well, and to keep them so.

This demands co-operation. Only with help of the ailing person can the doctor be expected to bring about speedy, gentle and enduring restoration of health; only with the interest and help of healthy persons can the doctor make progress toward blotting out disease.

To ascertain what is wrong with an ailing person is no light undertaking. A medical man's success in diagnosis depends upon his knowledge of nature's response to various insults and injuries, and upon his ability to evaluate the evidence of disease and interpret it correctly. He forms his judgment not only on the basis of what the patient says, but under guidance of the whole network of signs and symptoms after a complete survey.

Symptoms are never imaginary. If a man says he has a headache, he is either truthful or not: he is not imagining he has a headache. But the knowledge he conveys may be inaccurate because it is coloured by something he has been doing. He may have "doctored" himself, thus changing the trend and extent of his symptoms. Knowledge of this not uncommon practice leads physicians to move carefully: they sometimes exasperate patients by refusing to give them an easy and quick remedy, and by requiring them to come back for a second consultation.

It may be necessary for the physician to call upon some of his colleagues, specially trained in various aspects of medicine. Rapid advances in medical research have produced a vast and complex science, one which is too immense and complicated to be grasped and applied in its entirety by any one individual. There are, said an article in *The Annals* of the American Academy of Political and Social Science, twenty-three different classifications of specialists and subspecialists certified by the various American Medical Specialty Boards. In addition, the team devoted to the conservation of human life includes the dentist, the physical therapist, the dietitian, the psychologist, and others specially trained.

One way to live longer is by having regular medical check-ups by a physician who knows us and our medical history. Has it occurred to men to think that the more favourable life expectancy of women may be due in some part to their greater readiness to seek and to follow medical advice?

Public Health Agencies

Mustering the medical resources of the country in an attempt to meet all the needs of all the people is a most difficult enterprise, because of the complexity and wide ramifications of the problem. Legislation does not in itself automatically create health. There is great variation in need and resources between different parts of Canada and between rural and urban communities.

It is recognized that providing health care requires voluntary organizations as well as governmental support and the services of the medical team. The voluntary organizations have pioneered in many health fields. The Canadian Tuberculosis Association was formed more than 50 years ago; the Victorian Order of Nurses was set up by royal charter in 1897; the Canadian Mental Health Association and the Canadian National Institute for the Blind were established in 1918; the Canadian Cancer Society, working with the National Cancer Institute of Canada, started its activities in 1938; the Canadian Arthritis and Rheumatism Society, with branches in the provinces, was founded in 1948; and in addition there are many others with special fields of activity; such as the Canadian Council for Crippled Children, the Canadian Red Cross Society, the St. John Ambulance Association, and the Canadian Diabetic Association.

Attacking every phase of disease and propagating health in community, school and legislature, the Health League of Canada has been operating since 1921. Its National Health Week, dedicated to increasing the interest of Canadians in maintaining the highest possible standard of health that can be their lot, is planned for January 31st to February 6th this year, the tenth in its history.

The life insurance companies have played an important part in bringing about our present high standard of life conservation. Some have distributed vast quantities of health literature; some have provided policy-holders with visiting nurse service; many

officers have been closely associated with health organizations; a large number of companies have made generous financial contributions to voluntary health agencies concerned with the control of tuberculosis, cancer, infantile paralysis, and other diseases.

On a world-wide scale, concerted efforts are being made for control of infectious diseases. The World Health Organization of the United Nations is moving toward promotion of health and longevity in underdeveloped areas, a task in which Canada has played an important part.

Medical Research

Because an ounce of preventive medicine is better than a pound of curative medicine, much research in recent years has been devoted to discovering the causes of disease. The cost is great, the difficulties tremendous, but achievements have been well worth while.

Private bounty and industrial support have put the tools into the hands of research staffs, with the result that scores of thousands of people with diabetes, pernicious anaemia, and a variety of other diseases are kept alive today who would have been lost inexorably only yesterday. No child need have rickets; there need be no sacrifices to beri-beri and pellagra; smallpox and diphtheria and tetanus may be controlled. The brilliant campaign of analyses by Doctors Banting, Macleod, Collip and Best, of the University of Toronto, discovered the use of insulin, thereby making the world a safer and brighter place for hundreds of thousands of diabetics.

People Live Longer

As a result of all this we can measure medical progress, not in terms of how many people die, but how long they live before they die. What has been accomplished during the past few decades in extending the average length of life is marvellous.

From the time of prehistoric man to the present there has been a progressive increase in the average length of life, but the increase has been greater in the past century than the total of all preceding centuries.

We have no written records of man's early days, but judged by fossil remains the average life of a man in the dim past was perhaps 18 years. The astronomer Halley drew up a life table based upon records for Breslau in 1687-1691, showing $33\frac{1}{2}$ years as the average length of life; life tables for England and Wales in 1838-54 showed the average length of life to be 40.9 years; in the United States in 1900-1902 the average length of life was 49.2 years. Then, incredible though it might appear, within the brief period of ten years — 1940 to 1950 — the population at age 65 and over in the United States increased by 37 per cent, while the number at ages under 65 rose by only 13 per cent.

In Canada, the Metropolitan Life Insurance Company reports in its *Statistical Bulletin*, the crude death rate dropped more than 40 per cent, from 8.9 deaths per thousand of its industrial policy-holders in 1924-1926 to 5.2 per thousand in 1946-1948.

Taking the same period, and again confining the figures to Canada, there are other gratifying statistics. Influenza and pneumonia death rate dropped from 120.4 to 30.5; tuberculosis from 105.6 to 35.8; diarrhoea and enteritis from 102.7 to 10.9. Death rates from all causes fell 41.5 per cent. The significant changes toward a worse rate were in cancer (up 45.7 per cent); diabetes mellitus (up 77.5 per cent); and cardiovascular renal diseases (up 40.8 per cent).

If we take a comparison of deaths from all causes we find a decline of 21 per cent in Canada between 1937 and 1948. The rate of 8.22 deaths per 1,000 population in Canada compares with 9.01 in the United States, 7.99 in England and Wales, 9.77 in Northern Ireland, 9.34 in Scotland, and 7.48 in New Zealand.

Another way of saying this is that the average person who now reaches age 25 has as many years of life before him as did the average newly born baby of 1900.

If, as we hope, medical science is now on the threshold of discoveries in cancer and the degenerative diseases, a whole new aspect of longevity and health conservation will open before us.

Not All Diseases Kill

The fight against diseases which kill is dramatic, but there are other diseases. We all know people whose faces are deeply lined with the accumulated pain of years.

Allergies, which are seldom fatal, give much trouble; inflammation of the sinuses is a widely spread ailment with minimal compensations and much misery; hay fever, in its seasonal or year-round varieties, precipitates days and weeks of annoyance and pain; arthritis is a leading cause of disability (there are 600,000 Canadians who have the disease in one of its many forms).

Dental decay and other ills associated with the teeth do not ordinarily come under the heading of "killers", but they cause untold suffering. Few people obtain what can be called complete dental care. According to an announcement by the Canadian Dental Association called *A Charter for Dental Health* nine out of ten Canadians are detrimentally affected by dental diseases and the ailments that follow them.

The hard fact is that Canada has not enough dentists. If you multiply the number of dentists in Canada by the number of hours a dentist can work, says Dr. Don W. Gullett, secretary of the Association, and divide by the population, you will find it works out roughly to a half hour for each person in a year. As Dr. Gullett goes on to point out, dentistry is time-consuming work, and not much can be done in half an hour.

Mind and Body

A day can be thought of when we will possess greatly improved health, longer life, and more abundant physical comfort, but it will not come by medication alone.

The idea of purely mental and purely physical disease is a myth. The ancient Greek priests operated a sanitarium named after their god of medicine, where,

if a patient did not get well they ascribed the failure to impurity of his soul.

We know today that there is no such thing as a disease of the body which does not affect the mind, and many an uncomfortable state of affairs physically has its origin in our thoughts.

Halleck says in his book *Psychology and Psychic Culture* that health is largely determined by the centring of attention upon things which make for mental happiness. Anger, hatred, grief and fear are among the influences most destructive of vitality. Emotions like these tire our organism more than do the most intense physical or intellectual work—and they are emotions which can be controlled by our brains.

In *Time* of October 12th, Dr. William Menninger, famed psychiatrist, is quoted as saying that emotional troubles account for 85 per cent of "stomach trouble" and a very large percentage of heart difficulties.

Health requires a periodicity in work and rest, a natural rhythm in which relaxation and laughter have their proper place. A German philosopher once wrote: "Ten times must thou laugh during the day, and be cheerful; otherwise thy stomach, the father of affliction, will disturb thee in the night."

Conservation of Life

Not much is demanded of us in conserving life and health: merely that we apply to our lives the ideal we mentioned in connection with conserving natural resources: use without using up. We have about six times more of everything — heart, lungs, kidneys — than we need; all we are charged with is keeping them in trim.

Right here is the heart of our trouble. Time and again someone will say to you that he has just finished reading such and such a book, or a Monthly Letter, and "it makes sense." Yet you will observe no change in his life. We are all too apt to see how advice applies to others, and ignore its application to ourselves.

There is no magic about conservation of life and health. Disease is not caused exclusively by gremlins, germs and viruses. Some of it can be averted if only we give over our neglectful carelessness and take some positive actions. One of these is to have a family doctor and see him for regular check-ups, thus spotting troubles before they blaze into emergencies.

Obey the rules, remembering that some of them are different for various people. Tonics that are good for everyone are hope, joy, and contentment; all of us need good diet and lively interests; but special conditions may prompt the physician to say to one man: "avoid hard physical exertion", and to another "abstain from alcohol", and to a third "increase your sleep period and take a short rest at mid-day."

The great majority of us can enjoy good health if we will co-operate with nature. No ivory-towerism or hand-washing indifference to the consequences of our actions or our neglect will give us continuing good health. We must close our ears to the siren voices which say everything is going to be all right, and do something, instead, to bring about and maintain that greatly-to-be-desired state.