



# THE ROYAL BANK OF CANADA

## MONTHLY LETTER

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### *In Search of Physical Fitness*

ARE WE content to be merely free of sickness, or do we wish to be heartily healthy? Instead of answering "not so bad" when someone asks us "How do you feel?", do we wish to reply with an enthusiastic "grand!"?

We are well acquainted with the toll of sickness, the serious, sometimes tragic, consequences of neglect of physical care, the dreariness of being half well. Let us try, now, to accustom ourselves to the thought and experience of being positively fit.

Business men, alas, are among the world's worst practitioners of health habits. They may be able administrators, well-informed about company operations, excellent in work systems, and towers of strength in production, but they tend to be careless and thoughtless with regard to their own fitness and neglectful of their responsibility to see that their families learn to enjoy physical effort.

We no longer believe that disease is the result of angering pagan gods, or that it is spread by night air, or that it can be cured by blood-letting. But what are we doing effectively to use our advanced knowledge of how to stay well in these days of pressure?

It is true that by paying taxes we support public services which set up health safeguards, but they cannot do everything for us. Quarantine and isolation and immunization contribute to physical efficiency by protecting us from certain diseases. Surely our ambitious minds can fix upon some better state to work toward.

When we raise our standards of physical fitness higher than mere freedom from contagious disease, we find that we are in the realm of personal effort. The responsibility for achieving positive good health is upon us individually.

The art of hygiene is very simple; perhaps that is why it is so often neglected and despised. Cleanliness, wholesome diet, moderation in alcohol and drugs, exercise according to one's needs and strength, and

mental attitudes of confidence, hopefulness and calmness: these are the basic laws of health.

#### *A shocking report*

The art of healthful living is not being carried into action by people in North America today, nor is it being taught effectively to the citizens of tomorrow.

This statement is made on the authority of a report that shocked President Eisenhower into appointing a special committee two years ago. The report was that of Dr. Hans Kraus, of the Institute of Rehabilitation, New York University, and Miss Ruth Prudden, of the Institute for Physical Fitness at White Plains, New York. It asserted that the United States of America is rapidly becoming the softest nation in the world.

Here are the bald facts revealed by Dr. Kraus:

58 per cent of United States children who were tested failed in one or more of six tests for muscular strength and flexibility, while only 9 per cent of the European children who were tested failed.

44 per cent in the United States failed in the one flexibility test (of back muscles) included in the six tests, against only 8 per cent of the European children.

36 per cent of the United States children failed in one or more of the five strength tests, compared with only 1 per cent in Europe. Three of these tests measured the power of abdominal muscles, and two the power of back muscles.

There are black-figure entries in our health ledger as well as these red-figure entries. But even when the balance is fairly struck, said Dr. F. G. Robertson to the First Commonwealth and Empire Conference on Physical Education, we must acknowledge that the findings of the study apply with almost equal force to us in Canada.

Is it not a startling conclusion, Dr. Robertson continued, "that the children of families on this

prosperous North American continent, with what we like to boast of as the highest standard of living in the world, with all the material prosperity that surrounds us on every side, measure up so unfavourably on a simple test of minimum muscular efficiency, stamina and endurance, with the children of families in Italy and Austria, countries which have known so much of hardship and deprivation during the past few decades?"

A pamphlet published by The Canadian Association for Health, Physical Education and Recreation confirms that the report is pertinent to Canada when it says: "there is no reason to believe that Canadian children would do better."

Dr. Doris W. Plewes, Consultant, Fitness and Recreation Office of the Deputy Minister of National Health and Welfare, writes: "the very evident lack of stamina and endurance as exhibited by Canadians in competitive sports has surprised many."

Edith W. Conant, Director of the Programme Department, Girl Scouts of America, added evidence gathered when she took a group of girls to an international gathering in Switzerland. "Many of our girls did not have the physical energy for the extended hiking, mountain climbing, cross-country games, or even folk dancing, that girls of other countries tossed off without losing their breath."

### *What is to blame?*

What is the cause of this failure of North American children to measure up to the physical health of children in Europe? General opinion leans to the belief that the typical way of life on this continent is to be blamed. Our children are driven everywhere: to school, to play, and to the shops. Even on week-ends and vacations, says Dr. Mary O'Neil Hawkins in *Child Study*, they often sit for hours cooped up in cars. Their recreation has become increasingly passive and visual. Movies and television take up much time.

It is always unpleasant to assign blame, but those who have studied the matter most closely do not hesitate to say that parents and schools are at fault, in that order. Robert H. Boyle writes that 54 per cent of six-year-old children fail to pass the muscular strength and flexibility tests; at the other end of the education ladder, 52 per cent of high school graduates fail. Private schools, which devote much more time to physical education, have a failure rate of only 14 per cent upon graduation.

Parents are careful to see that their children are inoculated, vaccinated, and given the anti-polio and other treatments as they become available. They accept chlorination, and in some places other treatment, of tap water as normal. But they lose sight of the need for the child's muscular development which in rougher

ages resulted from what the child did naturally. "The playpen and a plastic toy keep him sanitariously quiescent," charges Boyle.

### *What is to be done?*

No one is suggesting that we turn back the clock so as to provide the exercise given by chores no longer necessary: carrying water, chopping wood and carrying it to the box beside the stove, hanging out the wash, walking over hill and dale to bring home the cows for milking, running errands now attended to by telephone, and a hundred other duties that were done as a matter of course by young people. But it is necessary, if we are to save our young people from untold suffering and dissatisfaction with life, to recognize that our labour-saving machines impose a duty upon us to fill by other means the body-building place of these necessary human physical exercises.

Physical training in our schools needs an overhauling, according to those experienced in physical fitness. We have spectator sports in plenty, but only a few children are on the teams. Only the members of the teams and their replacements and the cheer leaders get any muscular exercise: the rest are admirers, exercising nothing but their lungs.

A well-planned programme of physical education would include a wide variety of activities and many skills.

Mere "provision" of playgrounds and equipment is not enough to meet the menace about which we have been warned. Participation should be required of every child, just as strictly as attendance at academic classes. The fortunate ones who make the teams will look after their own muscular development; attention needs to be paid to the one hundred or the one thousand in every school who are not on one of the athletic squads.

Does it pay? A school in a suburb of New York City had a 32 per cent rate of failure among its students. The physical education teachers added specific exercises to the existing programme of tumbling and gymnastics. Within five months the rate of failure fell to 24 per cent, and in eleven months it had dropped to 13 per cent.

### *Causes of illness*

For the first time in Canada's history we have a statistical statement of the causes of illness by age groups. It is given in a report published by the Dominion Bureau of Statistics in October, of which the following is a very brief extract:

Children under 15 years of age reported a high incidence of the diseases of the respiratory system, and after those came infective and parasitic diseases. Diseases of the respiratory system dominated in all age groups.



Adolescents, 15 years to 24, were afflicted by diseases of the digestive system, every tenth person having at least one attack.

Young adults, 25 years to 44, followed the same pattern but with more occurrences. Diseases of the bones and organs of movement, which had a rather low rate for persons under 25 years of age, began to show prominence, increasing from 9 to 22 illnesses per 1,000 population.

Middle-aged persons, 45 to 64, showed the increasing prominence of the diseases of the bones and organs of movement, about 42 per 1,000. If the recurring attacks were also counted, the rates would be 80 persons and 105 illnesses per 1,000. Diseases of the circulatory system also began to be important at this age.

Persons 65 and over suffered most frequently from diseases of the circulatory system and diseases of the bones and organs of movement. There were 146 new and recurring attacks of the former and 147 of the latter per 1,000 population.

It is evident that anything that can be done in childhood and adolescence and young adulthood to develop top quality in the bone, joint and muscle structure of the body will be a service of great value in middle and later ages.

Not, indeed, that physical fitness in childhood should be sought only because it will be beneficial in later life. It is of value here and now.

Accidents kill more children of school age than all diseases put together, and, says Dr. Plewes, most of these unfortunate children fall within one or more of these categories: they have a low energy level, they are slow reactors, or they are clumsy because of "muscle stuttering" and awkward because of lack of basic movement skills. "They are physical illiterates".

"We are paying the price of progress," says Dr. Kraus. "The older generation was tougher because it had to undergo adequate physical activity in the normal routine of living. Let's take the sting out of the benefits."

### *Get out of our seats*

One way is to get out of our seats. "We Canadians," Dr. Robertson told the Conference on Physical Education, "are a nation of riders and spectators, not walkers or active physical participants."

We sit at our desks in school or office all day; we sit on the bus or train or in our automobiles while going to and from school or work; we sit before our television sets, in the stands at hockey, baseball and rugby games; we sit in our cars or on buses on our way to the theatre, where we sit again to watch a play or a moving picture.

Even in the home, where no housewife will admit work is too easy even now, there is a lot of sitting as washing machines, dryers, ironers and the rest do jobs that formerly exercised leg, back and arm muscles. These new tools need to be balanced with some other kind of vigorous activity.

We in Canada have fallen behind other countries in being aware of the importance and value of physical efficiency. Canada is the only country of any repute which does not have an active branch of the International Federation of Sports Medicine. Other countries devote considerable funds and personnel to the development and maintenance of muscular fitness, and conduct a great deal of research into the problems.

On this point Dr. Plewes comments: "A Canadian branch could do much to bring the know-how of top-flight scientists in all related fields to bear on urgent problems of physical efficiency."

Perhaps the need for a specific and earnest individual, family, school and community move toward increasing physical efficiency by building the strength of our muscles might be made one of the planks in Canada's 14th National Health Week, sponsored by the Health League of Canada under the slogan "The health of the nation is the wealth of the nation."

### *Individual physical fitness*

Everyone can increase his physical fitness if he will aim at a worthwhile target. Let's shift our emphasis from "freedom from disease" to "the best possible health."

We might summarize this sort of fitness in this way: ability to fill one's place as an active member of society, without fatigue and with an energy reserve to meet unexpected stresses.

In the everyday work field, such a state of well-being will have good effects upon our job opportunities, our chances for promotion, and our earnings throughout our working life. More broadly, it will extend to give us emotional stability, mental security and social adequacy.

A certain amount of what is needed physically has been decided for us before our birth, and is ours by heredity: the type of body we have, our bone structure, the length and breadth of our bodies, and the number and pattern of muscle fibers that make up the muscles of the body. But the important thing is not whether we inherit a ten cent or a ten dollar constitution, but what we do with it. An old model car, properly serviced, can give longer and more consistent service than a modern and more expensive model carelessly used.

This is an individual challenge to today's adult people: to adjust their bodies to the changing conditions

of modern life so as to keep them in reasonably good condition to handle peak loads. What we need is to give our bodies regular and intelligent care: sufficient sleep and rest, a balanced and adequate diet, daily vigorous physical activity.

One sign of a strong body is that the muscles perform their functions properly, giving the necessary support to the vital organs. This is something that can be improved by regular, systematic exercise, and by making sure that sufficient oxygen is taken to our muscles to produce energy.

While it is the blood that carries the oxygen and other nutrients to the working muscles and the waste products away from them, it is that muscular organ the heart which produces the force to move the blood. And, says Dr. Plewes in an article published in *Canada's Health and Welfare*, "persons whose muscles are in reasonably good condition are less likely to suffer from heart disease than those whose daily routine requires only limited physical effort."

In an interview, Dr. Plewes enlarged upon the connection between physical efficiency and the action of the heart. "The failure to develop strong muscular tissue," she said, "prevents the blood from carrying oxygen to the muscle tissue and removing wastes fast enough to permit rapid repetitions of muscle action and hence the individual lacks endurance, and fatigues easily, even though he may be able to make one short presentable effort."

Other research teams have pointed out that lack of adequate physical activity can be a menace to health and even to life. Two British medical research men found that coronary heart disease occurs with more than twice the incidence among the physically less active than it does among the active, and when it does occur the mortality is much higher among the less active. They illustrated this by comparing British bus drivers and conductors. The drivers, sitting all day behind the wheel, were found to be far more susceptible to coronary heart disease than were their more active colleagues, the conductors, who spent the working day going up and down the stairs of the double-decker buses.

The worth of exercise rests upon a basic principle: The Law of Use. The Father of Medicine, Hippocrates, the first to break away from the idea that disease is due to the anger of the gods, declared in the fourth century B.C.: "That which is used develops and that which is not used wastes away."

Exercise gives us other benefits. It tends to lessen states of tension and fatigue and to reduce violent emotions. It contributes to weight control. Fat shuns the active muscles of those who limit their daily ration of

calories to the amount they balance with exercise. It wipes away many backaches of the sort caused by lack of muscular strength and flexibility.

In short, adequate exercise of our muscles contributes to physical fitness, adding to our enjoyment of work and leisure; it encourages our zest for adventure, contributes to our courage in tackling problems, and gives us the vigour to do things of consequence. A fit person uses 20 per cent less energy for any move he makes than does a flabby or weak person.

### *In mature years*

As the years pass, physical fitness demands that we constantly adjust to new pressures as well as to aging arteries. "Survival of the fittest" means no more than the survival of those best fitted to cope with their circumstances.

We are masters of our fate only when we have made ourselves fit to meet the new conditions that surround us; when we have learned to give in when the situation does not much matter and save our strength and energy for the important things in life.

A physically fit man easily finds his way out of difficulties that would keep his nerves twanging if he were sick or only half well. He gives birth to business ideas as no ailing man can. He has the grit to carry them into action.

It is a sign of maturity to know when to exercise and when to rest, when to hang on and when to let go. Francis Bacon, Lord High Chancellor of England, writing some 360 years ago, said a man seeking good health should be ready to say: "This agreeth not well with me, therefore I will not continue it." If we hurl ourselves against Nature what can we expect but wreckage? Nature is so old, so strong, so fixed.

Let us not be content, then, in our mature life, to add up all the illnesses we do not have, and say we are healthy. There is a wonderful experience available to us: positive well-being. The only thing lacking is a desire so strong that it prompts us to do the necessary things.

The suggestion that we can be better than we are faces two stages of opposition. First, we say it is ridiculous. This is the great enemy of all progress, people's disbelief. Then we say that the proposed betterment is not needed, that our present state of fitness is good enough.

But those who push on from feeling "pretty well" to feeling "very well" gain a rich reward. Instead of raising gravestones to mark the spots where noble enterprises and great hopes perished for lack of his physical vigour to embody them in deeds, the wise person will rejoice in the strength to do his work and to achieve his happiness.