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PHYSICAL ACTIVITY AND HEALTH

In this final issue of **Nyam News** in this physical activity series we attempt to collate the main evidence for the various health indicators. Clearly, physical activity is positively related to health. However, to reap maximum benefits from physical activity, individuals (2yrs and older) are recommended to participate in a minimum of 30 minutes or more on most or all days of the week. Health can be defined as a state of physical, emotional, social and psychological well-being. In promoting health, one must take into consideration the importance of psychological as well as physiological well-being. It can therefore be assumed that, in an effort to improve health and wellness, physical activity is of major importance. This is so because physical activity affects our general health in several ways:

1. It regulates blood glucose level in the control of Type 2 diabetes.
2. It helps to maintain weight loss; hence, it is known as a treatment for obesity.
3. It improves cardio-respiratory fitness.
4. It builds healthy bones, muscles and joints and reduces the risk of colon cancer.
5. Physical activity helps psychologically as it reduces feelings of depression and anxiety, improves mood and promotes a sense of well being.
6. Active people have lower chances of developing stroke.

Educators, doctors, scientists and philosophers have promoted physical activity as a major contributor to health and longevity. It is believed that physical activity (exercise) can slow down the process of aging. It is said that eating by itself cannot keep a man well; he also needs to exercise. Here food and physical activity (exercise) are seen as a cohesive whole, working together to promote health and well-being. That is, healthy diets and regular, adequate physical activities are major attributes of good health. On the other hand, unhealthy diet and physical inactivity (sedentary lifestyle) are two of the main risk factors for high blood pressure, raised blood glucose level, abnormal blood lipids, overweight/obesity and for major chronic diseases such as cardiovascular disease, cancer and diabetes. Regular physical activity can also reduce the cases of osteoporosis, musculoskeletal problems and mental health problems.

Physical activity raises the heart rate and as a result benefits weight loss. Intensities of between

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50-60% produce favourable results for weight loss. As physical activity level increases one's fitness level also increases. Thus in order to achieve high fitness, individuals should over time increase the intensities of physical activity. It is important to note that the greatest benefit of physical activity occurs when sedentary individuals become moderately active, however, moderately active individuals also benefit when they increase the intensities of their physical activities. In other words, people who engage in more than the recommended 30 minutes are likely to further reduce health risks. Some common health risks that are associated with physical inactivity are:

- ***Premature death***
- ***Heart disease*** – the risk of developing angina (a type of heart disease) or heart attack is reduced in people who are regularly physically active when compared to those who are not. For example, sedentary individuals are said to have almost two times the risk of having heart attack when compared to the physically active ones. Physical activity reduces blood pressure and cholesterol and as such decrease risk factors associated with heart disease. Persons who exercise have increased high-density lipo-protein (HDL) level. High-density lipoprotein is the good cholesterol that protects our heart against heart disease. These high-density lipoproteins prevent the narrowing of the arteries. The opposite is true for low-density lipoprotein which is found predominantly in animal fat. As such, it is usually recommended that individuals who already have heart disease engage in physical activity to prevent it from getting worse. Research has also shown that physically inactive individuals are more susceptible to heart attacks than the physically active.
- ***Obesity*** – Encouraging weight loss has serious health implications for the obese as decreased weight can result in health benefits. For example, obese persons with Type 2 diabetes can help to control the condition with weight loss. Regular physical activity also affects the transport of amino acid into the muscle cells which in turn increases muscle mass and assists in weight control.
- ***High blood pressure*** – Physical activity is seen as a preventive measure of high blood pressure. It is a means by which blood pressure level can be lowered.
- ***Adult-onset diabetes*** – Regular physical activity decreases the risk of the development of Type 2 diabetes in active individuals as opposed to sedentary persons. The greater the amount of physical activity, the less likely it is for someone to develop Type 2 diabetes.
- ***Osteoporosis*** – the thinning of the bone (osteoporosis) can be prevented through regular physical activity. The bone cells are stimulated by exercise, which both increase the bone mass and strengthens the bones. This reduces the risk of having fractures as an individual gets older.
- ***Cancer*** – The development and progression of many chronic diseases, such as cancer, are mitigated by physical activity and exercise. Physical activity is said to half the chances of the development of colon (bowel) cancer, especially in men. There is also evidence that breast cancer is less common in physically active women especially those at the post-menopausal stage. The risk of lung and endometrial cancers as well as advanced prostate cancer can also be lowered by physical activity.

The physiological as well as psychological effects of sedentary lifestyle affect the various body systems. It is recommended therefore that individuals should exercise in order to reduce morbidity as scientific evidence supports its positive impact on physical and psychological quality of life. Individuals should also be encouraged to participate in a variety of physical activities in an effort to reap maximum health benefits. That is, individuals should not participate in one set type of exercise but should include a variety to cater to the various

parts of the body, for example, aerobic exercise, flexibility activities, stretching as well as strengthening activities. Thus, while strengthening activities may affect the muscles, aerobic exercise will cater to another part of the body such as the heart. In children, physical activity has a long lasting effect on bone health, especially during the growth period and puberty. Thus children should engage in activities such as skipping and running to improve bone health, muscles and flexibility. In adults, physical activity decreases age-related decrease in bone mass as well as osteoporotic fractures in older people, particularly if the activity increases muscle strength, balance and coordination.

Mental Health

Research shows that physically active individuals have better mental health. Mental disorders, mental illnesses, mental health, as well as psychological well-being affect mood, personality, cognition and perceptions. It is also associated with neurological (nerves) changes. These problems are all interrelated with a person's physical health and quality of life. Physical activity has been a known way to treat mental health problems such as depression, stress and anxiety. Some mental health problems, such as depression, are associated with suicide. Studies have shown that a more active lifestyle is linked with higher levels of alertness and mental ability, including the ability to learn. The benefits of physical activity on mental health reflect positively on both young people and adults. In comparison to sedentary persons, the physically active ones have higher positive self-concept, more self-esteem and more positive temperament. In short, physical activity helps individuals to feel good about themselves.

Recent studies have shown that, when compared to sedentary persons, people who are physically active or have high levels of cardiorespiratory fitness have enhanced mood (less negative and greater positive affect), higher self esteem, greater confidence in their ability to perform task related to physical activity (that is, greater self efficacy) and better cognitive functioning. Studies have also shown that physical activity has benefitted clinical and nonclinical individuals with mood disturbances.

Evidence shows that physical inactivity increases the risk of clinical depression. Sedentary persons are likely to have twice the symptoms of depression as opposed to those who are physically active. Thus researchers have proposed that health benefits associated with physical activity may act as a preventive measure that could lead to the maintenance of mental health over time. Even physical activity of low intensity such as walking is associated with better health. But there are a number of psychological barriers to physical activity; these include issues related to perception of body size, poor confidence and the lack of immediate reward. Thus physical activity should be promoted to the extent where persons, irrespective of their body sizes and their perceptions, can feel good about their engagement in it.

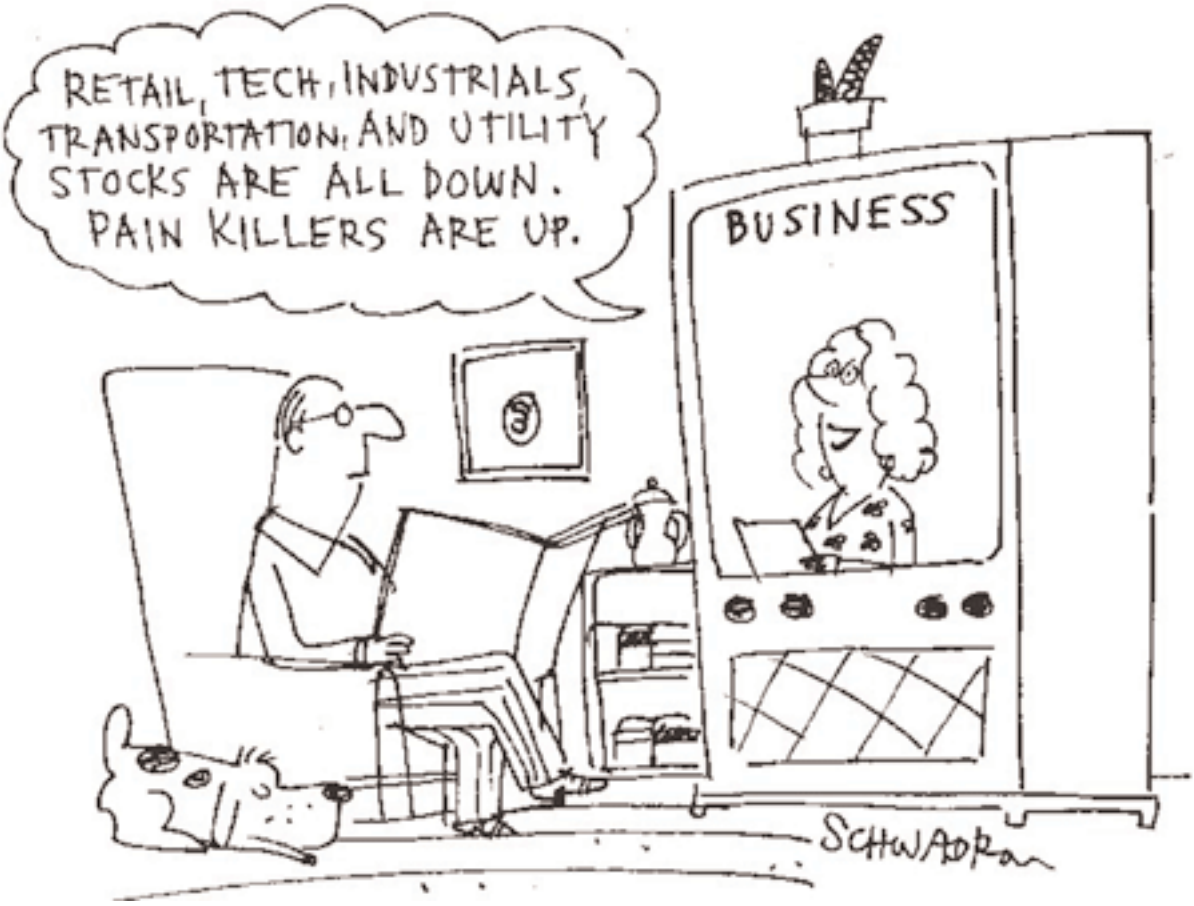
It is also known to help you to sleep better, but should be done during the daytime or early evening and not close to bedtime.

Quality of Life

Health-related quality of life encompasses cognitive, physical, social and emotional functioning: personal productivity and intimacy. Health-related quality of life is influenced by an individual's health status and the impact that health care has on the quality of day-to-day life. Physical activity reduces stress, strengthens the heart and lungs, increases energy level, helps individuals to maintain a healthy body weight and improves ones outlook on life. As a result, children are encouraged to participate in regular physical activity for healthy growth and development. Adults, on the other hand, through engagement in physical activity, can accomplish daily tasks with ease and comfort as well as less fatigue. Physical activity prolongs independent living and improves the quality of life for seniors, in that; weight-bearing physical activities reduce the rate of bone loss associated with osteoporosis. It also helps them to maintain strength and flexibility, balance and coordination. Balance and coordination can in turn help to reduce the risk of falls.

In conclusion, physical activity is significant in its influence on improving health and well-being,

hence, affecting the quality of life. The major ways in which physical activity reflects on the quality of life are evident in improved psychological well being (self concept, self esteem, mood and affect), physical well-being (ability to perform daily task with reduced risk of disease) and cognitive functions. ◆



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