



## **The Importance of Physical Fitness in Academia**

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### **ABSTRACT**

This paper reviewed what physical fitness is as the ability to carry out daily tasks easily and to have enough energy to respond to unexpected demands placed upon you. Fitness activities include warm-up and cool-down activities. When these activities are properly done it does not only enhances one's health, alertness, but also promote the mental emotional, physical social and spiritual well-being of an academia. It brings about all round development of other body e.g. agility, strength, power, motor skills, circulo-respiratory and cardio vascular-endurance. The paper also pointed out some enemies of physical fitness which are not only limited to Poor hygiene, Bad habits e.g. drinking, smoking, drugs; Wrong mental attitude and Poor posture. Above all, the paper recommends that academia should engage in Circuit training (exercise done in a circular form), interval training, ensure a balanced diet to enhance the organic functions and have self-dedication and drive towards training.

**Key words:** Activities, Exercises, Fitness, Nutrition and Vitamins.

### **INTRODUCTION**

The exact meaning of "fitness" is still unresolved among experts. The need for fitness varies from individual to individual at different point in time or circumstances and different environment. Thus, no one kind of fitness satisfies all situations. Thus, fitness could be defined "as the state of individual's capacity to survive and live effectively in the environment".

Physical fitness according to Ojeme (1998) "is the ability to carry out daily tasks easily and to have enough energy to respond to unexpected demands placed upon you". Laconically put, the term physical fitness means the ability of the individual who can efficiently handle his/her daily tasks without undue fatigue so as to have energy for family, hobbies and leisure time activities and physical reserve in case of emergencies. In other words, this involves the ability of the individual to live a full and balanced life, which has to do with mental, emotional, social and spiritual factors and not

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only with the physical alone but with the entire capacity of the individual for total self-expression.

### **Basic components of physical fitness**

Physical fitness as prescribed by Ojeme (1998) includes three basic components:

1. Flexibility: This is the range of movement of the joints. It is difficult to measure total body flexibility. However, the following test discussed under Muscle Strength and Endurance will give you a general measure of your level of fitness in this area particularly your heart and lungs. You should remember two important points when taking this flexibility test:
  - i. Do some light stretching to warm up your muscles. This will help prevent injury from too vigorous movement.
  - ii. Avoid quick jerky movements. Your reach should be gradual and slow.
2. Muscle strength and endurance: Strength refers to the greater amount of work your muscles that can do at a given time. Endurance refers to group of muscles can keep performing over a period of time without causing undue fatigue. Muscle strength and endurance have little to do with your height and weight. It has everything to do with how fit you are. This three-minute-step test will test your heart and lung fitness.
  - i. Step at the rate of 14 steps per minute.
  - ii. Immediately after the three minutes, sit down and relax without talking to anyone
  - iii. Find your pulse-either on your wrist or one the side of your neck-and count for one minute. This count gives you your pulse recovery rate which is the rate at which your heart beats following activity.
3. Heart and Lung Endurance: This refers to the ability of the heart and lungs to deliver needed causing undue fitness and then quickly return to a resting rate.
4. Other physical fitness health related components are: Body composition, Nutrition, Relaxation, Structural anomalies (disability) and Absence of disease. The other related components of physical fitness is performance related components. These are: Power (ability to do work), Strength (exertion of force), Circulo-respiratory endurance, motor skills and marathon endurance When the above are developed by an individual, the individual will now attain physical fitness and dynamic health.

### **Starting Out**

There are many points to consider when planning an exercise programme. The first and most important is to reorganize that a personal exercise programme may require some changes in your life. It will require a commitment on your part.

- i. Begin slowly with a plan
- ii. Set a realistic personal goal(s)
- iii. Be specific in what you want to accomplish
- iv. Reward yourself for your progress
- v. Your exercise programme should not become highly competitive, so try to avoid comparing yourself with others.
- vi. Your goal should be for personal fitness because your body system has its own unique needs and capabilities.

### **Steps to Begin a Fitness Programme**

The following steps according to Amusa and Udo (1982) are useful to begin a fitness programme:

- Step 1:** Tune in to what you know. Become aware of your own behaviour. How to spend your leisure time? How much physical activity you build into your day?
- Step 2:** Set your own personal goals. Be specific and realistic in what you want to accomplish. For example, I will begin a walk programme by walking 1½ km each evening before dinner. My goal is to be walking three kilometers by the end of the third week.
- Step 3:** Offer your environment to reinforce what you are trying to do. Be aware of and change situations that trigger the behaviours you want to change. Set up situations that will encourage you to participate in activities you want to do more after.
- Step 4:** Take things one step at a time. Practice new behaviours regularly. Do not attempt to make too many changes at one time. Give yourself at least three weeks to see improvement in any one area.
- Step 5:** Be good to yourself. Reward yourself for your progress. Positive feedback from within yourself is a strong force to keep going.
- Step 6:** Commit yourself to long-term changes. Changes in fitness level takes time and effort. Fitness is not a fad.
- Step 7:** Find and associate with people who believe in and practice what you are doing. They provide encouragement and can reinforce what you are doing.

### **What exercise should you do and when can you exercise**

Choose exercises that are appropriate for the location in which you live. The available facilities, equipment and weather are important considerations. You

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also need to consider any physical problems or limitations you may have like broken arms or legs. Seek medical advice, especially if you have not been exercising at all if you have health problems.

As you consider what exercise to do it is important to pick something you enjoy. It is unlikely that you will continue on exercise that you do not enjoy or cannot do very well. In addition, consider exercise that you already do during the day. You may wish to walk briskly to and from classes, so you might want to pick an exercise that does not involve walking. By developing a regular plan of exercise, you prepare yourself for dealing more effectively with the problems and challenges of daily living. You will look and feel better, as you can begin to improve your level of fitness that may have been present in the past.

Your body needs exercise as it needs food planning for exercise in your daily routine is just as important to your body as meal planning. By developing these exercise habits now, you will find that they will become part of your life as an adult. You will find yourself continuing to enjoy activities that others are not able to enjoy because you have chosen to take care of yourself. More than likely, you will live longer because people who take care of their bodies are likely to develop poor health and disease.

With reference to when to exercise, it is best to find a regular time during the day to exercise. This way exercise becomes a part of your routine. It is best not to exercise after eating. If you exercise on a full stomach, more blood will be diverted to the skeletal muscles, depriving the stomach of oxygen. This can cause stomach cramp or nausea. Other enemies of good health and thus affect physical fitness include: Faulty diet, Inadequate exercise, Poor hygiene, Bad habits e.g. drinking, smoking, drugs; Wrong mental attitude and Poor posture.

### **Components of exercise**

Every exercise programme should begin with a warm-up and end with a cool down. Warming up and cooling down are a “must” for any successful daily exercise programme.

- i. **Warp Up:** This is an activity that stretches the muscles preparing them for the exertion that is to come. Hard working muscles tend to shorten, making them easier to pull. Warming up helps to increase the elasticity of muscles and tendons stretching can help prevent strains and pulls. Warm-ups also allow your pulse rate to increase gradually to its target rate. Warm-ups should begin with some large muscle stretching. Stretches should be slow and smooth, not jerky. These exercises are good for improving flexibility. Research indicates that a good warm-up readies the joints for action by increasing the flow of the fluid that lubricates our joints.

- ii. **The Cool Down:** Just as your body needs to be readied for increased activity, it needs to be gradually returned to a less active state. During exercise, an increased amount of blood is pumped to the heart with the help of contractions of large leg muscles that pulls against the veins. If the leg muscles relax suddenly, pooling may result. The blood will collect in your extremities instead of getting back to the heart. The heart is still pumping hard, but no blood is returning to it. Pooling can cause lightheadedness, even fainting. When you are cooling down, you gradually decrease activity. Slower activity should be done for about five minutes, followed by five minutes of stretching with heavy breathing in and out. Cooling down adequately occurs when your heart rate is down to within 20-30 beats of your regular heart rate. During cooling down, the muscles expel the toxic (poisonous) waste produced by the exercising.

Furthermore, Daryl (2007) opined that the following issues need also to be considered in a fitness programme in addition to what has earlier been discussed.

- i. **How much exercise do you need?** To improve your level of fitness, exercise within your target rate pulse range for a minimum of 15 minutes, three times a week. The preferred time is 20-30 minutes.
- ii. **To lose Weight and Body Fat:** Exercise within your target pulse range for 30 minutes or longer, four times a week.
- iii. **To Help Reduce Depression and Anxiety:** Exercise within your target pulse range for 45 minutes to one hour at least three times a week.

Your target Pulse Rate is a range within which you can and should work for the most benefit from your exercise. Multiply your maximum rate by 70 percent to get the lower rate. Multiply your maximum rate by 85 percent to get your upper rate. You now have a range of numbers within which to work.

### **How to Acquire and Maintain Physical Fitness**

To acquire physical fitness, one has to involve or engage in moderate physical exercise daily with proper scheduling. In order to have young people, get used to a regular fitness programme, circuit training courses are present in some high school campuses. These layouts resemble obstacle courses that provide for a variety of exercise utilizing the simple equipment spaced around a designed course. Sometimes students have a leadership role in the construction of circuit courses with minimal expense. Pipe for bars and old telephone poles are the basic items. Details for the construction of such layout can be secured for Citizenship and Leadership Training Centre, ShereHills, Jos, Nigeria. This Centre was established to honour young and

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old people who demonstrate exceptional physical achievement. The programme is designed to:

- Encourage young people to develop a high level of physical fitness.
- Encourage good testing programmes in schools and communities.
- Promote more information on the fitness of Nigeria Academia.

One should try always to avoid detraining with the aim retraining at will but must maintain training practice scheduled for a maximum result. This requires self dedication and drive.

### **Getting Fit to Live**

A person was once considered to be “physically fit” if he was free of diseases. In fact some experts who should know better still use this definition, although it is totally misleading. To be fit, you need good muscle tone, the full use of your lungs and a sound cardiovascular system. In short, to be physically fit, you do not only have to be well, we can take that for granted – but you need to have the strength and best to lead a full and vigorous life.

If you were an athlete in high school or college or University, you started adult life with an advantage in physical fitness, but your condition depends much more upon what you have done in recent years than on what you did in your glory days. Your body wants to know what you have done for it lately.

Before starting an exercise programme, it is strongly recommended that you get a complete check-up by your doctor. But unless there is something seriously wrong with your heart, exercise will not hurt you, not even if you push yourself to exhaustion. “The heart is by far the strongest muscle in your body” (Ajisafe, 2002). If you can swim and have access to a pool, you may want to build up your heart and lungs in the water. Swimming is one of the very best conditioners, because it exercises all the important muscle groups in the body. Start out three times a week by swimming continually with any stroke at any speed until you can keep going for at least five minutes.

Finally, physical fitness is important for the following reasons,

- i. It enhances one’s health
- ii. It brings about mental emotional, physical social and spiritual well-being of an academia.
- iii. It enhances alertness
- iv. It brings about all round development of other body e.g. agility, strength, power, motor skills, circulo-respiratory and cardio vascular-endurance.

### **Nutrition, Weight Control and Exercise**

It is worth mentioning the interrelationship of nutrition and exercise and to explore as a basis for sound weight control. Nutrition according to Bud (1979) is the food we eat and how the body uses it. Foods provide us with a variety

of necessary substances of nutrients. These substances help in providing the energy needed for efficient functioning. The **five / seven** basic scientific food groups utilized for the body include:

- i. Protein: All life requires protein. It is the basic structural substance of each cell in the body. Protein provides structural to bones, skin, muscle fibres and many tissues.
- ii. Carbohydrates: According to Bud Getchell (1979), “Carbohydrates (starches and sugars) provide us with energy and fuel for performing bodily functions such as forming new chemicals compounds transmitting nerve impulse and supplying the primary energy for vigorous muscular activity.”
- iii. Minerals: Many minerals are required by the body. They give strength and rigidity to certain body tissues and assist with numerous vital functions.
- iv. Vitamins: These are organic substances needed in small measures / amount by the body and essential for the proper functioning of muscles and nerves. They also play a dynamic role in releasing energy from foods and in promoting normal growth of body tissues.
- v. Water: The body’s need for water exceeds its need for food. About 60% of your body is water and water is second only to oxygen in importance. Water provides the medium (body fluids) for transporting nutrients and hormones throughout the body and to removing wastes from the body. Water also plays a vital role in regulating body temperature. You get the water you need not only by drinking it directly but from the foods you eat.

Your daily energy needs depend on such factors as body size, age, the type of and amount of your daily physical activity. In determining your ideal weight, how fat you are is more important than how much you weigh. Determining the proportion of fat tissue in your body rather than scale weight is a later indicator for estimating your proper weight. The basic principle of weight control is quite simple. However, for many people, the ability to control their body weight has met with limited success. Fundamentally, your energy intake (food) and energy output (physical activity) must be kept in balance. When you eat more than your daily energy needs, the excess energy is stored as body fat. When you eat less, you bury stored fact for energy.

It is important to state here that, we all need the same nutrients, but in different amounts. Young people need greater quantities of food for body growth, upkeep and energy. Men generally need more food than women, and large people need more food than small people. However when people are overeater, that is, take in more calories than their daily activities use up, they gain weight. Intake of food in excess of our daily needs leads to obesity i.e. the state of being too fat.

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### **Exercises in Weight Control**

The importance of regular exercise in weight control is well accepted today. Physical activity is the great variable in energy expenditure and can play a very important role in helping you control your body weight.

Some of the symptoms of ascertaining a person's fitness according to Larry (2004) include among others.

- i. Protruding Stomach.
- ii. Forgetfulness.
- iii. Quick fatiguing rate.
- iv. Panting/breathlessness after short distant race/walk.
- v. Prolonged recovery after exercise or work.
- vi. Quarrelling (Exchanging of words).

The academia can improve himself / herself through various activities for the purpose of weight loss and also keeping the heart and lungs in good working condition.

**Table 1:** Activities and levels of participation.

COLUMN A	COLUMN B	COLUMN C
High level conditioning	Moderate level of conditioning	Low level of conditioning
Cross country race	Bicycling, Walking	Bowling
Jogging	Calisthenics	Football
Jumping rope	Handball / Basketball	Golf
Stationary cycling	Soccer / Squash / Tennis	Volleyball
	Swimming	

Source: Author's complication 2010.

The explanations of each group is given below:

**COLUMN A:** These exercises are naturally very vigorous. They need to be done at least 20 minutes, three times a week. They promote fitness and contribute to weight control.

**COLUMN B:** These activities are moderately vigorous, but they can be excellent conditioners if done briskly for at least 30 minutes, three times a week. When done briskly, they offer benefits similar to those activities in Column A.

**COLUMN C:** These activities, though they may be vigorous, they are usually not sustained long enough to provide conditioning benefits. They can improve coordination flexibility and muscle tone. But they must be combined with activities in Column A or B to improve total fitness.



## CONCLUSIONS AND RECOMMENDATIONS

Having reviewed the concepts of physical fitness and what it entails to an academia, the author wishes to recommend possible solutions to it for every dynamic health or fitness aspirant there is nothing better than a planned system of training with varied forms of exercise and apparatus.

- i. Circuit training (exercise done in a circular form).
- ii. There should be interval training.
- iii. The academia should have self-dedication and drive towards training.
- iv. Go for a balanced diet to enhance the organic functions.

The academia should know that exercise can relieve stress, control weight, clear the mind and promote one's self-esteem. Exercise takes time and discipline, but it is well worth it. It does not only keep the you in shape but may actually be a cure for some health problems.

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