

# **The Components of Fitness**

## **The Primary Components of Fitness**

To begin with we will identify the components of fitness that are important for improved physical health. The 4 components that we list are:

1. Cardiovascular Ability/Capacity → this is the body's ability to take in oxygen (respiration), deliver it to the cells (circulation) and the use it at the cellular level to create energy (bioenergetics) for physical work (activity). In fitness, we also refer to the Aerobic ability/capacity. There is a spectrum of capacity for the cardiovascular system that includes aerobic endurance (how long), aerobic strength (how hard) and aerobic power (how fast).
2. Muscular Ability/Capacity → this is an analysis of the spectrum of muscular capability. We commonly refer to muscular endurance (the ability to apply force from a muscle over a long period of time or the ability to complete repeated muscle contractions), muscular strength (the ability to generate force or the maximum amount of force that each muscle in the body can exert in a single contraction) and muscular power (the ability to generate power very quickly in an explosive way).
3. Flexibility → this is the range or amount of motion that each joint in the body is capable of performing (each joint has a different amount of flexibility).
4. Body Composition → this is the proportion of fat-free mass (muscle, bone, blood, organs and fluids) to fat mass (adipose tissue deposited under the skin and around organs).

## **The Secondary Components of Fitness**

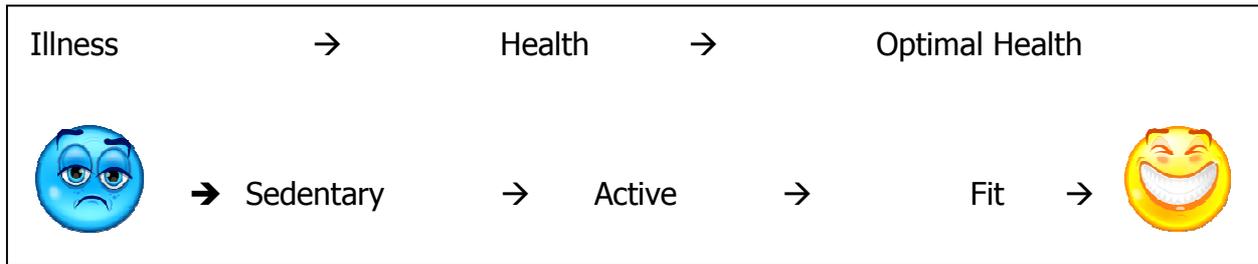
1. Balance → the ability to maintain a specific body position in either a stationary or dynamic (movement) situation.
2. Coordination → the ability to use all body parts together to produce a smooth and fluid motion
3. Agility → the ability to change direction very quickly
4. Reaction Time → the time required to respond to a specific stimulus
5. Speed → the ability to move rapidly; also called velocity (the rate of motion)
6. Power → the product of force and velocity exerted (the time rate of doing work); also known as explosive strength
7. Mental Capability → the ability to focus and concentrate during exercise to improve training effects as well as the ability to relax and enjoy the psychological benefits of activity

## **Basic and Progressive Training Principles**

As fitness professionals, we need to understand the dynamic state of health based on the health continuum. At one end of the spectrum is illness, and at the other extreme is optimal health and a theoretical concept of ideal health.

See the next page....

## ***The Health Continuum***



Our position on this continuum is always changing based on our current lifestyle habits. The more active we become, the more our health moves in a positive direction.

When someone has a sedentary lifestyles which is not health promoting, they can move towards optimal health by beginning an active living plan. Once active on a regular basis, a person then becomes capable of increasing their commitment to exercise and a fitness program can be initiated.

Adding activity into daily life is a great way to get started. Some things like household chores, gardening, washing the car, walking to work are all excellent ways to add physical activity to daily life and build stronger health profile.

### ***THE PAR Q***

Before an individual participates in your fitness class, it is essential that you or the fitness facility, have a client complete and sign a PAR Q. This form was developed by the Canadian Society for Exercise Physiology and Health Canada as an initial health screening for all participants before they begin a physical activity program. The symbols for PAR Q represent the " Physical Activity Readiness Questionnaire".

Use of the PAR Q states that if a client answers YES to one or more questions, they should seek medical advice before becoming more physically active.

### ***Progressive Overload***

There are two concepts that we need to understand here- the concept of overload, the concept of progression. When we ask our body to do more than it is used to doing we are imposing OVERLOAD (stress) on the body, and we ask it to respond by producing adaption or change in a positive way.

The concept of PROGRESSION is then introduced to place a continued stress on the body- once we are able to adapt to a certain exercise stimulus, we ask our body to work a little harder and to then become a little stronger. If the new stress is imposed in a gradual way, the body is able to respond with positive change, and then process of improvement continues.

In order to continue our health status initially, and then our fitness level secondarily, we need to follow this principle of progressive overload on a continuous lifetime basis.

## ***Specificity of Training***

With the understanding that the body will respond with positive change based on the demands, we also need to understand that these positive changes are SPECIFIC to the demands being placed on our body. Different forms of activity or exercise place different demands on the body – for example swimming is primarily an upper body activity that causes development of the muscles of the upper body and the cardiovascular system.

If we are looking for improvements in cardiovascular endurance, we must engage in regular aerobic exercise. Increases in muscle size or endurance are therefore best accomplished using strength training, and improvements in flexibility require a structured and regular stretching program for effective results.

An easy way to understand the concept of progressive overload and specificity is through the use of SAID which means Specific Adaptations to Imposed Demands!

## ***The FITT Formula for Fitness Design***

The initiation of a physical activity program is an excellent way to begin a positive impact on current health. A basic formula to assist in the development of a new activity is the use of the FITT plan. The FITT plan refers to F- Frequency, I- Intensity, T- Time and T-Type of activity.

F- Frequency- how often to exercise

I- Intensity – how hard to exercise

T- Time – how long to exercise

T- Type – what exercise to choose