"DEVELOPING PHYSICAL CAPACITIES"

Our body works like a machine and can adapt itself to many different situations. To keep our body fit and in good working order, we have to practice ***physical activities or sports*** *often so we can strengthen our muscles, build up our stamina or endurance, and become more flexible. This way, we maintain and develop all our physical capacities.*

1. WHY EXERCISE?

Exercising regularly benefits you in the following ways:

- Helps to carry out everyday activities.
- Improves your body shape.
- Helps to release stress and tension.
- Helps you to sleep better.
- Reduces the chances of getting illnesses and diseases.
- Gives you a physical challenge to aim for and improve your skill and performance in sports.
- Tones the body and the muscles, which can lead to a better posture.
- Increases your body's levels of strength, stamina or endurance, and flexibility.

There is a set of elements that allow us to know the level of **physical fitness** of a person. One or more of these elements are necessary to perform any activity. They are:

- ***Stamina or endurance***: it improves our cardiovascular, respiratory and muscular performance.
- ***Strength***: it improves the performance of our muscles, bones and joints.
- ***Flexibility***: it improves the range of motion of our joints.
- ***Speed:*** it improves the performance of our nervous system.

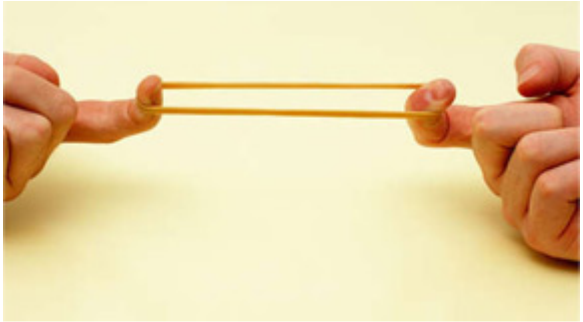
As a person grows up, these elements develop and one becomes stronger, faster and has more stamina. Besides, if you practice physical activities or sports often, these elements will develop even more, and will benefit your performance as well as your everyday life.

2. FLEXIBILITY.

The ability to achieve an extended range of motion without damage, thanks to joint mobility and elasticity of the tissues. It depends on :

a. Joint mobility. It is the range of movement of a joint. It depends on the type of joint and other structures, such as ligaments.

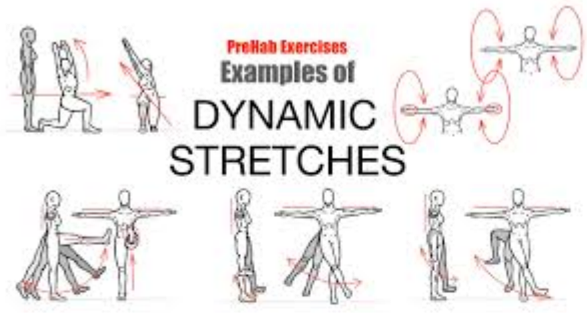
b. Elasticity of the muscles. The ability of our tissues and muscles to stretch and go back to their usual length.



The **benefits** of improving your flexibility are: to help prevent injuries; to increase elasticity, to improve joint mobility and to reduce stiffness.

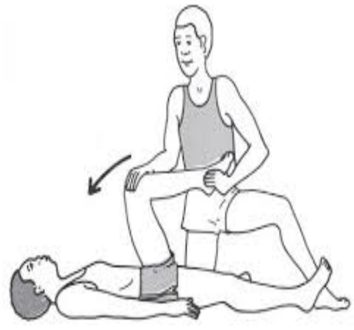
You can improve your flexibility through:

- ***Dynamic*** stretching: involves movements such as bouncing to get a greater range of motion. You need a previous and an appropriate warm up. It is more sport-specific than other forms of mobility.

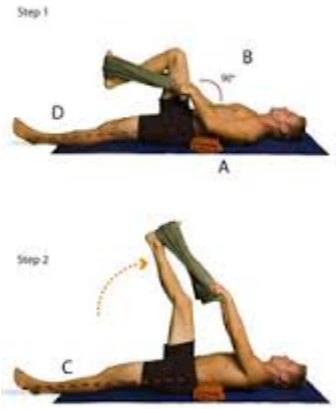


- ***Static*** stretching: involves the gradual lengthening of muscles. There are two different ways:
  - Hold each stretch for 10-30 seconds.
  - Stretch-relax-stretch. Stretch the muscle just before the pain point, keeping the stretch for at least 20 seconds. Then relax for 20 seconds and repeat the stretching again. You should reach a higher level the second time.

Both static methods may be **active** , when you do it by yourself, or **passive** when you do it with assistance or some other apparatus.



A passive static exercise



3. PRINCIPLES OF TRAINING

In order to develop a safe and effective training programme, you will need to consider the principles of training. These principles are a set of guidelines to help you understand how to design a training programme. There are many principles but we focus on:

1. ***Continuity***: exercise should be done with regularity (2, 3 or 4 times per week depending on your initial level of fitness). Sporadic exercise is useless.
2. ***Progression***: We start with an easy workout to progressively increase the intensity or the difficulty of the workout. **The Intensity:** this is how hard you will work. It is usually expressed as a percentage (50%, 60%,90%), and is a reference of our effort. But how do we control our effort?

Heart rate or pulse

Our heart rate or pulse is very useful to know how our heart works. It's also useful to know the intensity of our exercise, and that is why we should observe/monitor our heart rate time to time.

Take your pulse:

- In 1 minute: ______________ beats per minute
- In 30'' and multiplied by 2: ______ X 2=___ beats per minute
- In 15'' and multiplied by 4: ______ X 4=___ b/m
- In 6'' and multiplied by 10: ____ X 10=___ b/m