



## 18. What is Strength?

By Brian Mackenzie  
British Athletic Federation (BAF) Senior Coach

- weight training
- hill and harness running

### What is Strength?

The common definition is the ability to exert a force against a resistance. The strength needed for a sprinter to explode from the blocks is different to the strength needed by a weight lifter to lift a 200 kg barbell. This therefore implies that there are different types of strength.

### What are the classifications of strength?

The classifications of strength are:

- Maximum strength -the greatest force that is possible in a single maximum contraction
- Elastic strength - the ability to overcome a resistance with a fast contraction
- Strength endurance - the ability to express force many times over

### How do we get strong?

A muscle will only strengthen when it is worked beyond its normal operation, it is overloaded. Overload can be progressed by increasing the:

- number of repetitions of an exercise
- number of sets of the exercise
- intensity - reduced recover time

### How do we develop each strength?

Maximum strength can be developed with:

- weight training

Elastic strength can be developed with:

- conditioning exercises
- medicine ball exercises
- plyometric exercises
- weight training

Strength endurance can be developed with:

- circuit training
- dumbbell exercises