

# Training concepts

## Types of efforts

Name	Speed	Load	Duration	NRJ	Example
<b>Speed</b>	Very fast	Light	Very short <10''	ATP	Badminton smash
<b>Power</b>	Fast	Medium	Short < 30''	ATP + Anaerobic	Shotput throw
<b>Strength</b>	Slow	Heavy	Short/medium 10'' to 30''	ATP + Anaerobic	Scrum in rugby
<b>Resistance</b>	Fast	Medium	Medium 30'' to 2'	Anaerobic	400 m race
<b>Endurance</b>	Medium	Light	Long > 1'	Aerobic	Long distance race

## Maximum effort

Name	Scientific max	Possible / difficult	Practical tests
<b>Speed</b>	Measure the speed in km/h	<b>Sprint</b> / speed of the shuttle	Reps in 10'' / measure distance
<b>Power</b>	Speed in km/h and weight	<b>Distance in shotput</b> / speed of HB shoot	Heavy Reps in 20'' / measure distance
<b>Strength</b>	Maximum weight movable	<b>Weightlifting</b> / push in a scrum	Number of reps < 15 / max time static < 30''
<b>Resistance</b>	Level of lactates	<b>Time 400m</b> / blood analyse	Interval training test / reps in 1'
<b>Endurance</b>	VO2 max	<b>Time Marathon</b> / Air analyse	MAS / max time > 2'

# General ideas

**Warm up** : Always start a session with a warm up. First, activate respiratory and circulatory system with a light jogging (5') then go to specific and increase regularly intensity.

**Cool down** : always finish a session with a cool down. First repeat exercises at light speed/intensity then relax muscles (light stretching).

**Antagonist muscles** : when focusing on one (group of) muscle, always train the antagonist (group of) muscle.

**Resting time** : resting time between repetitions and series is as important as working time. It will induce the type of effort you produce.

Short, no time (< 15'') => endurance

Medium time (15'' to 40 '') => resistance

Long time (> 40'') => speed ; power ; strength

**Complete and correct move** : when you perform an exercise fast, at high intensity or when tiring, never change the move, you could work uselessly, even hurt yourself. You should reduce speed/intensity, even shorten the exercise and reconsider your programme for next time.

**General fitness** : your goal is to maintain your body active. Practice regularly (2/week) short sessions (30') at medium intensity and body weight or very light weights. Prefer whole body moves. Alternate with aerobic activities.

**Specific fitness** : your goal is to improve physical qualities for a specific sport. Analyse your activities and your strong/weak points to focus on muscle groups, type of training. Use those sessions to train body parts that are not really involved in your favorite sport.

**Turn around your goal** : whatever your goal, vary regularly your workouts (reps, time, intensity, speed, order...). You'll be more complete and you'll have more fun.

**Recovering time** : your muscles will gain strength, speed, endurance... not during the session, but « the night after » while at rest. They will be rebuilt at a higher level to be ready for next time. So make sure you have enough recovering time in between sessions.

**Short and often** better than rare and long.

Never neglect **daily activities at low pace** (walking, cycling...). Minimum 30' per day.

**HIIT** produces great improvement in short time, but for short time.

**Light Endurance** produces slow improvement but for long time. It's also a good base to help recovering (aerobic destroys lactates, doesn't stress muscles, improves respiratory and circulatory systems).

**Avoid machines** except for specific purposes. They are very specific on 1 muscle, far from real life.

**Prefer full body moves**, closer to real life activity.

**Variety** : introduce frequent changes in your activities to prevent boredom and make a more complete training.

**Reversibility** : training is a reversible process. You train, you improve, you stop training, you decrease.

**Consistency** : fitness is a lifelong process (see reversibility)

**Practice with friends** : it's easier and funnier. Sport in general is a social activity. Gossiping before, during and after the session is as important as the physical activity itself !

Choose your own targets : adapt your sessions and every exercise to your real and current fitness.