

TRAINING ZONES

Aerobic Training Zone = 60 – 80% of maximum heart rate

Anaerobic training Zone – 80 – 90% of maximum heart rate

Maximum heart rate = 220 – age

TYPES OF TRAINING

interval	Training that involves set periods of work followed by set periods of rest. It usually involves periods of intense exercise followed by periods of rest so that the performer can recover. The intensity of interval training can be altered to suit the individual by altering the time working and / or the time resting.
HIIT	Short bursts of extreme effort with even shorter rest periods. A 2 : 1 work ratio is often used e.g. 30 seconds work, 15 seconds rest. During HIIT training the performer will be working anaerobically so it will develop their ability to withstand the build up of lactic acid.
Continuous	Exercising for a sustained period of time without rest. It improves cardiovascular fitness. Sometimes referred to as 'steady state' training. The performer normally trains at a low to moderate intensity but for an extended period of time 20 minutes +. During continuous training the performer will be working aerobically so it will develop their ability to get oxygen into the body and create energy.
Fartlek	Also known as 'speed play', this type of training involves performers varying their speed / intensity. It can involve different speeds (walk, jog, sprint) or running at different terrains (uphill, down hill, on sand). Altering the intensity allows the performer to use both their aerobic and anaerobic energy systems.
Circuit	= A series of exercises performed one after the other with a rest in between. Each circuit involves different activities called 'stations'. Stations are often set out to work all of a performers body (arms, core, legs). In circuit training performers often work for a set amount of time and then have a set rest period e.g. work 30 seconds, rest 30 seconds. Progressing these sessions is easy as the performer can increase the work time or decrease the rest time.
Weight	Involves the lifting of weights / resistance to develop muscular strength or endurance. The beauty of weight training is that it can focus on specific muscles / muscles groups so that sessions can be designed to suit an individual's needs. This type of training involves REPS (completing one lift of a weight) and SETS (the completion of a number of reps). To develop strength / power performers must lift heavy weights but for a low number of reps. To develop strength / power performers should lift above 70% of their one rep max for 4 – 8 reps. To develop muscular endurance performers must lift lighter weights but for a higher number of reps. To develop muscular endurance performers should lift below 70% of their one rep max for 12 – 15 reps.
Plyometric	Is a type of training that is used to increase power (strength x speed). It typically takes the form of bounding, hopping or jumping. The aim of plyometrics is to use your body weight and gravity to stress the muscles involved. This type of training involves the muscles working eccentrically (lengthening) when landing (often quadriceps) which helps them store elastic energy. This energy is released when the performer pushes up , working their muscles concentrically (shortening) e.g. jumping (hamstrings).
Static_Stretching	Stretching to the limit and holding the stretch isometrically.

PRINCIPLES OF TRAINING (SPORT)

S = Specificity

Training should be specific to the needs of an individual and demands of the sport that they take part in.
e.g. Sprinters would use interval training as it has short rest periods and they work anaerobically compared to the long distance runners who would use continuous training as they need to work aerobically for longer periods of time. This would mean each type of performer is improving a relevant aspect of fitness for their activity.

PO = Progressive Overload

Working harder than normal whilst gradually and sensibly increasing the intensity of training.
e.g. Needed for any improvement to be made e.g. drop in resting heart rate Starting at 5KG and increasing to 6KG once 5KG becomes too easy. In this way the muscles adapt to the new work loads increasing the strength of the individual.

R = Reversibility

If an individual stops or decreases their training level, then fitness and performance are likely to drop.

T = Tedium

Tedium refers to boredom. Training should be altered and varied to prevent An individual from getting bored and demotivated.

TRAINING SEASONS

Pre-season (Preparation) The aim is to improve general and aerobic fitness. It should also focus on specific fitness needs of the performer so they are ready for the competition / season.

Competition season (Peak / Playing season) The aim is to maintain fitness levels. The performer should be at peak fitness and will aim to maintain this. They will focus on specific skills that are needed in their activity.

Post-season (Transition) The aim is to rest and recover from the season / competition. Performers should continue to do some light aerobic training so that fitness levels do not drop too far.

PRINCIPLES OF OVERLOAD (FIT)

Works with the principle of PROGRESSIVE OVERLOAD.

F = Frequency - refers to how often someone trains. As fitness increases a performer can start to train more often.

I = Intensity - refers to how hard a performer trains e.g. how fast they run, how heavy the weight is that they can lift. As fitness increases, the intensity should be suitably increased.

T = Time - refers to how long you train for. As fitness increases, the length of time spent training may well increase.

T = Type - refers to the type of training used e.g, HIIT. The training type must remain suitable to gain the specific fitness benefits that are required

JUSTIFICATION OF TRAINING METHODS

- Training should involve vital components for the sport. (specificity)
- Training should try and **mimic** many of the specific movements required in a sport. (specificity + type)
- Performing activities that can easily be included within training session to complement other (named) training types, eg continuous training, agility etc
- If no / little equipment is required, methods (e.g. plyometrics) can easily be integrated into session.
- Using methods that can be specifically designed / altered for a specific sporting session, e.g. jumping to reach a ball in basketball, sprinting away from a defender in football.
- How many people can perform the session? If methods can be completed by large groups it would be better for games sports eg whole squads
- Is there space to perform the training method / activity? Fartlek, interval and continuous can be completed on a rugby pitch or in a sports hall as it requires no specific equipment.