

Heart Rate (HR)

The number of times your heart beats per minute (bpm)

Resting Heart Rate (HR)

Your heart rate at rest

Maximum Heart Rate (HRmax)

The maximum number of times the heart should beat before it becomes unsafe.

HR max = 220 - age

BORG scale

The BORG rating of perceived exertion (RPE) scale is used to measure how hard a performer thinks they are working.

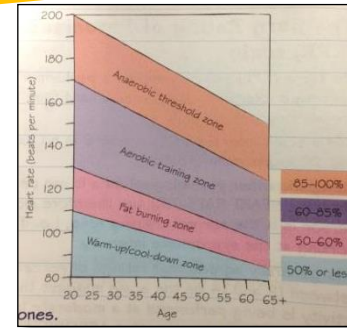
RPE Scale	
6	Very, Very Light
7	Very Light
8	Very Light
9	Very Light
10	Fairly Light
11	Fairly Light
12	Fairly Light
13	Somewhat Hard
14	Somewhat Hard
15	Hard
16	Hard
17	Very Hard
18	Very Hard
19	Very, Very Hard
20	Very, Very Hard



Training zones

The target zone you train in depends on the type of benefits you are hoping to achieve.

You must work out your HR max before you can calculate your target heart rate zones!



Basic principles of training

- Frequency** How often you train. This should be gradually increased.
- Intensity** How hard you train. This should be gradually increased.
- Time** How long you train for. This should be gradually increased.
- Type** The training method used. This should be specific to the component of fitness the performer aims to develop.

Remember FITT!

Target Heart Rate

This is the recommended maximum heart rate for a training zone and is used to measure exercise intensity.

The BORG scale can be used to predict heart rate:
 $RPE \times 10 = \text{approximate HR (bpm)}$

Specificity

This means that the training is relevant to the individual's sport, activity or fitness related goals.

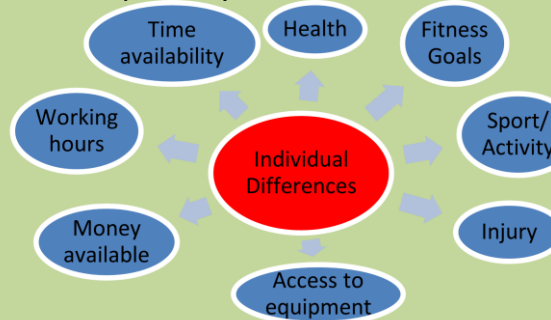


Unit 1 @LWarnerPE

Learning Aim A- Principles of Training

Individual differences & lifestyle factors

Fitness programmes should be designed specifically to the individual.



Overload

Training must be demanding enough to cause the body to adapt. For the body to make fitness gains, it must get more demanding over time- this is called **progressive overload**. Overload can be achieved by gradually increasing FITT

Adaptation

This is when your body adapts to cope with increased training. This usually happens during rest times.



Reversibility

Fitness can be lost if training is stopped or if the intensity of training is not sufficient enough.



Rest and Recovery

Rest is very important as it allows training adaptations to occur and the body to recover from any damage. Rest time also allows energy stores to be replenished.

Variation

A variety of training routines should be used to avoid boredom. It will also help to reduce the risk of injury caused by repetition of the same training methods.

HYPERTROPHY- When a muscle grows in size.
MUSCLE ATROPHY- When a muscle loses size