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Level 3 Bespoke exercise programme design 2018

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Current guidelines for muscular fitness, CV fitness and flexibility

Order and relevance of fitness components for each session would be specific to client

- Warm-up
- Flexibility (as part of warm-up)
- Balance, motor skills training, proprioception training
- Core stability
- Cardiovascular workout
- Muscular conditioning (inc. power if appropriate)
- Cool-down, including flexibility

Level 3 Bespoke exercise programme design

CV fitness

ACSM guidelines - CV fitness

- High intensity, low duration, or moderate to vigorous exercise with longer duration
- 64% and 70 – 94% of MHR
- Those already physically active (in aerobic activity) require intensities at high end of continuum
- For most individuals intensities within a range of 77% to 90% of MHR are sufficient to achieve improvements in CV fitness

CV general guidelines

Frequency

- 3-5 days per week

Intensity

- Moderate to vigorous intensity
- Moderate: 50-65% of MHR or 12-14 RPE
- Vigorous: 65-90% of MHR or 15-18 RPE

CV general guidelines

Time

- 20-30 minutes or up to 60 minutes of continuous or intermittent activity
- Moderate intensity: 30 minutes, which can be accumulated
- Vigorous intensity: 20 minutes sustained

Examples of CV training methods and activities

- Interval
- Fartlek
- Continuous/constant pace training
- Circuit training
- Cardiovascular machines e.g. rowing machines, cross trainers, bikes, treadmills, steppers, versa-climbers
- Functional equipment e.g. prowlers, sleds
- Bodyweight activities e.g. burpees, squat thrusts, mountain climbers

CV physiological adaptations

% Max HR	Physiological adaptations
55-70	Increased fatty acid utilisation Increased capillary/mitochondria density*
70-80	Improved type 1 fibre recruitment Improved aerobic glycolysis Increased aerobic enzymes within muscles Improved oxygen transport
80-90	Improved type 11a fibre recruitment Increased anaerobic threshold Improved tolerance and clearance of lactate Improved anaerobic glycolysis
90-100	Improved type 11b fibre recruitment Increased anaerobic enzymes within muscles Improved maximum oxygen transport

* Capillary/mitochondria density will increase to some extent at all training intensity levels


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