Programme design and delivery for personal training

Learning outcomes

LO1: Understand the principles of safe and effective personal training programme design

LO2: Understand the principles of periodisation and how they can be used effectively to meet client goals and needs

LO3: Know how to safely and effectively integrate the use of alternative environments into personal training sessions

LO4: Know the considerations for planning and delivering group personal training sessions

LO5: Understand the scope and professional boundaries of personal training pre and postnatal women

LO6: Understand the scope and professional boundaries of personal training older adults

LO7: Be able to design safe and effective personal training programmes and session plans

LO8: Be able to provide a session introduction that prepares the client for exercise

LO9: Be able to instruct safe and effective exercise technique

LO10: Be able to monitor a client during exercise sessions

LO11: Be able to provide motivation and encouragement

LO12: Be able to monitor client progress and adapt the programme accordingly

LO13: Be able to review client progress and satisfaction

Assessment criteria

1.1 Describe the current evidence-based frequency, intensity, time and type (FITT) guidelines for safe exercise programme design for healthy adults

1.2 Describe guidelines for programme design to minimise injury risk and optimise recovery between training sessions and enable physiological adaptation to occur

1.3 Describe a range of training methods/techniques that can be used to meet the needs of clients with a range of goals and ability levels, to include:

- muscular endurance techniques
- hypertrophy/strength techniques
- cardiovascular techniques
- functional techniques
- flexibility techniques

1.4 Explain how an exercise technique can be regressed, progressed or modified using a range of variables to ensure that it meets a client's needs and goals

1.5 Explain how to select exercises, training protocols, equipment and environments that meet a client's goals, ability level and preferences

1.6 Identify ways to observe and refine a client's technique and postural alignment to maximise movement efficiency and performance

2.1 Describe the principles of periodised programme design
2.2 Describe a range of periodised programme designs
2.3 Explain how to apply the principles of periodisation to programmes for a range of goals and client needs, to include:
- health-related clients
- general fitness clients
- fitness or sporting clients working towards an event
- hypertrophy or strength-related clients

3.1 Describe the types of alternative environments that can be used for fitness training, to include:
- outdoor environments
- indoor environments

3.2 Explain the benefits and disadvantages of each training location
3.3 Identify the legal and regulatory requirements for health and safety specific to outdoor fitness training
3.4 Identify possible hazards and risks in outdoor fitness training environments
3.5 Describe how to manage identified risks in outdoor fitness training environments
3.6 Describe how training systems can be used when designing an outdoor fitness programme
3.7 Identify a range of exercises suitable for outdoor fitness training

4.1 Describe a range of group personal training methods
4.2 Explain the benefits and challenges of delivering group personal training sessions
4.3 Explain how to apply safe session structure to group sessions
4.4 Describe how to incorporate the use of a partner or group in personal training sessions

5.1 Explain the value of physical activity for pre and postnatal clients
5.2 Describe exercise contraindications and safety considerations for pre and postnatal women
5.3 Describe appropriate types of activity for a pre or postnatal client
5.4 Identify any specific risks for a pre or postnatal client when participating in physical activity
5.5 Describe ways to manage the identified risks

6.1 Explain the value of physical activity for the older person
6.2 Outline medical conditions commonly associated with old age
6.3 Describe exercise contraindications and safety considerations for older adults
6.4 Describe a range of safe and effective exercises/physical activities suitable for older adults
6.5 Identify any specific risks for the older adult
6.6 Describe ways to manage the identified risks

7.1 Design exercise programmes that align with credible evidence-based guidelines for frequency, intensity, time and type
7.2 Design exercise programmes that take account of individual clients' needs and preferences

7.3 Design programmes that include exercises specific to client goals

7.4 Design programmes that include training techniques specific to the client's aims and appropriate for their ability level

7.5 Select exercise environments that align with client preferences and enable exercise to be performed safely

7.6 Design sessions and programmes that follow established guidelines for preparation and recovery to minimise injury risk, optimise adaptation and performance

7.7 Design progressive exercise programmes that apply the principles of periodisation

8.1 Assess client readiness to participate in the planned session

8.2 Explain the content and structure of the planned session in relation to the client's goals and ability

8.3 Encourage client questions and feedback to enable modification of the planned session

8.4 Outline health and safety information specific to the planned activities and session environment

9.1 Instruct the client to perform exercises with correct technique and postural alignment

9.2 Use appropriate verbal, visual and kinaesthetic cues to correct client exercise technique and improve movement quality

9.3 Positively reinforce correct exercise performance to build self-efficacy

9.4 Observe movement accurately and identify valid strategies to improve the client's exercise technique

9.5 Provide modifications of exercise technique to enable safe and effective execution of the movement, as required

10.1 Monitor exercise performance, intensity and client feedback

10.2 Adapt the level of exercise complexity and intensity in response to monitoring observations

10.3 Monitor the exercise environment to ensure client safety and comfort

11.1 Use appropriate motivational strategies with clients during sessions

11.2 Use techniques to increase client motivation to adhere to lifestyle changes between sessions

11.3 Encourage clients to adhere to planned lifestyle behaviour changes

12.1 Keep accurate records of session performance to enable progress to be tracked over time

12.2 Adapt planned session content and record changes made in response to client progress and feedback

12.3 Keep accurate records of changes made to the programme and sessions

13.1 Review client performance and satisfaction at the end of sessions

13.2 Request feedback on client satisfaction with the personal training programme and service

13.3 Request feedback on ways to improve own performance in delivering personal training sessions

Client's risk stratification

Personal trainers are not qualified to work with clients with medical conditions or rehabilitate clients from injury. This would be beyond the scope of practice for a personal trainer without further qualifications and training being achieved.

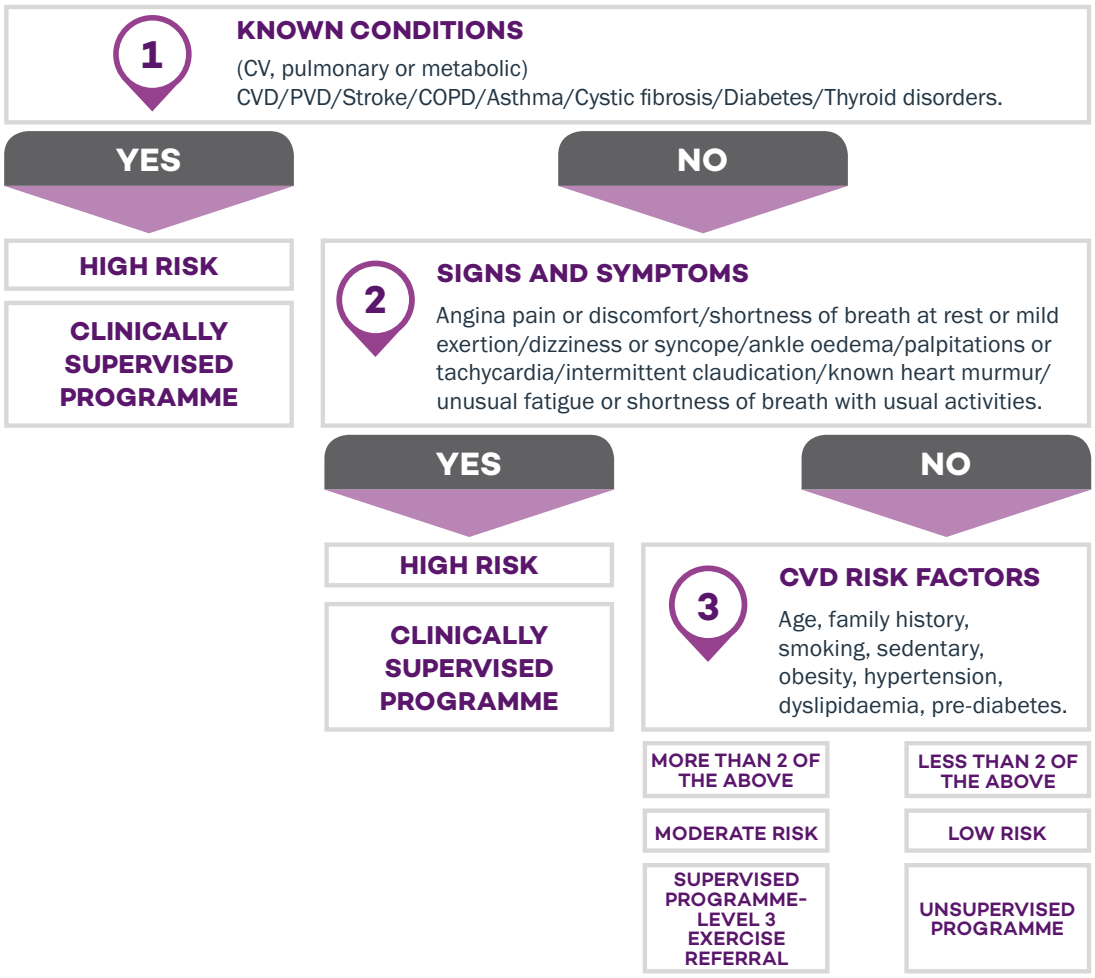
Such conditions include, but are not limited to:

- Cardiovascular disease.
- Stroke.
- Cancer.
- Type 1 and 2 diabetes mellitus.
- Parkinson's or Alzheimer's disease.
- Neurological conditions, e.g. multiple sclerosis.
- Mental health conditions, e.g. depression, anxiety, eating disorders.
- Dementia.
- Obesity.
- Risk of falls, e.g. frail older adults.

TRAINER TIP

Clients with these medical conditions would need to exercise under the supervision of a level 3 exercise referral instructor or level 4 specialist insturctor. Higher-risk clients may need clinical supervision.

GP clearance should be sought for clients with medical conditions or multiple CVD risk factors. These groups may need to work with an exercise referral or specialist instructor.



Signs and symptoms of overtraining

- Reduction in performance.
- Reversal of benefits and adaptations.
- Sudden loss of coordination.
- Reduced ability to concentrate.
- Irritability, hypersensitivity, mood changes.
- Disrupted sleep patterns, lethargy and fatigue.
- Increased susceptibility to colds and illness.

General adaptation syndrome (GAS)

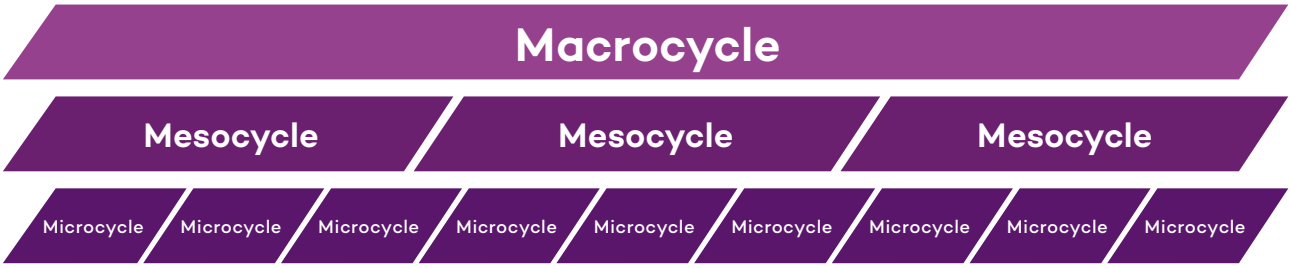
Stressor	A new training stimulus is applied.
Alarm	Performance is temporarily reduced, muscle soreness and fatigue are increased.
Adaptation	The body specifically adapts to the stressors applied.
Plateau	Adaptation slows and stops.
Exhaustion	The body becomes fatigued and effects can be reversed.

Programme periodisation

Periodisation is the term used to describe a long-term programme that is broken into planned and structured phases or blocks of training. Each block or phase is designed to develop and progress a client towards the achievement of a specific goal or target.

The phases of periodised programmes are:

- **Macrocycles** – can be relatively short (e.g. a 12-week macrocycle may aim to reduce a client's dress size) or can be very long-term (e.g. a 4-year plan to prepare an athlete for the next Olympics).
- **Mesocycles** – are the training phases of the macrocycle that can last from several weeks to several months, depending on the aim and individual client (e.g. one mesocycle may target the development of strength, the next may focus on speed development and the third might integrate strength and speed to develop functional power). If the results and progressions of each mesocycle are added together they will result in the achievement of the overall macrocycle goal.
- **Microcycles** – typically last one week and are component parts of the mesocycle. These short-term training cycles consist of weekly progressions as well as day-to-day intensity and volume manipulations (e.g. in week one of a mesocycle a client may perform two low-intensity endurance sessions and one speed session; in week four they might have progressed to one low-intensity, one medium-intensity and one speed session per week).



Principles of periodisation

- Periodised plans should always consider the individual client. One size does not fit all.
- Long-term goals should be broken down into medium- and short-term aims and objectives (macro, meso and microcycles).
- Progressions must overload the body sufficiently to create adaptation.
- Linear progression cannot be sustained long-term.
- The body needs time to recover.
- There is a clear inverse relationship between training volume and intensity.
- Periodised programmes should cycle through training phases to maximise time spent in adaptation and to minimise time in plateau and exhaustion.
- Monitoring and evaluation should form a part of each and every periodised programme.
- Adaptation of the periodised plans must take place after each evaluation.

Useful resources

- Active IQ. (2017) Active IQ Personal Training Manual.
- ACSM Position stands. Available at http://www.acsm.org/access-public-information/position-stands
- ACSM (2014) Guidelines for Exercise Testing and Prescription. 9th Edition. USA. American College of Sports Medicine. Wolters Kluwer/Lippincott, Williams and Wilkins.
- Bompa, T. (1999). Periodization: theory and methodology of training. Champaign, IL, Human Kinetics.
- Dick, F.W. (2014) Sports Training Principles. 6th edition. Bloomsbury.
- Garber, C.E. et al. (2011) ACSM Position Stand: Quantity and Quality of Exercise for Developing and Maintaining Cardiorespiratory, Musculoskeletal, and Neuromotor Fitness in Apparently Healthy Adults: Guidance for Prescribing Exercise. Medicine and Science in Sports and Exercise vol 43(7), pp1334-1359.
- Hawley, J.A. (2000) Handbook of Sports Medicine and Science, Running. Blackwell Science.
- NHS Choices. Physical Activity Guidelines for Adults. Available at http://www.nhs.uk/livewell/fitness/Pages/Fitnesshome.aspx