Title | Demonstrate knowledge of health risk factors and disease, and monitor exercise stress
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Level | 2
Credits | 4

**Purpose**
This unit is intended for all people involved in the fitness industry so that they can protect any potential or current exerciser from undue risk by understanding and acting on basic indicators of health risk and excessive exercise stress.

People credited with this unit standard are able to: describe key health risk factors; identify and describe common diseases in modern society; describe the relationship between health risk factors and common diseases; identify and respond to an exercise participants risk level; and identify and act on indicators of excessive exercise stress.

**Classification**
Fitness > Exercise Prescription

**Available grade**
Achieved

**Guidance Information**

1. The collection of health risk information from exercise participants can be completed in some part by observation and questioning. This unit standard refers to obvious signs of high health risk and excessive exercise stress, as all people involved in the fitness industry are obligated to monitoring and preventing unnecessary risk for exercise participants. Data on blood pressure, cholesterol, cardiovascular function, and other symptoms is of additional benefit in assessing health risk and should be used where available.

2. For the purposes of outcomes 1 and 4, *exercise participant* can include the person completing this unit standard if they participate in exercise.

3. Exercise is used to create physiological stress that stimulates adaptation. Therefore, all exercise is somewhat stressful. However, *excessive exercise stress* refers to situations where the physiological stress created exceeds the body’s immediate capabilities to cope with it and therefore creates signs and symptoms that would not typically be seen or be desirable under normal circumstances.

4. People with medical and/or genetic conditions that prevent them from having typical body composition are excluded wherever reference is made to obesity or excess body fat.

**Outcomes and performance criteria**
Outcome 1
Describe key health risk factors.

Performance criteria

1.1 An exercise participant's non-modifiable health risk factors are described.
Range must include but is not limited to — age, personal health history, gender, family health history.

1.2 An exercise participant's modifiable health risk (or ‘lifestyle’) factors are described.
Range must include but is not limited to — smoking, inactivity, poor nutrition, stress, excess body fat.

Outcome 2
Identify and describe common diseases in modern society.

Performance criteria

2.1 The name and symptoms of common diseases are identified.
Range must include but is not limited to — diabetes, stroke (cerebrovascular accident – CVA), cancer, coronary heart disease (CHD), asthma.

2.2 The key physiological causes of the symptoms of common diseases are described.
Range diseases must include but are not limited to — diabetes, stroke (CVA), cancer, coronary heart disease (CHD), asthma; key physiological causes may include but are not limited to — lack of oxygenated blood due to blockage of an artery or narrowing of the artery; excessive cell growth and nutrient use due to cell DNA damage; poor control of blood sugar due to insulin insensitivity or poor insulin production; lack of air in the lungs due to inflammation, mucus, or muscle contraction.

Outcome 3
Describe the relationship between health risk factors and common diseases.
Performance criteria

3.1 Health risk factors and their relationship to common diseases are described.

Range health risk factors must include but are not limited to – smoking, inactivity, poor nutrition, stress, excess body fat; common diseases must include but are not limited to – diabetes, stroke (CVA), cancer, coronary heart disease (CHD).

3.2 Stages on the continuum of health and disease are described.

Range common diseases must include but are not limited to – diabetes (Type 2 or NIDDM and Type 1 or IDDM), stroke (CVA), cancer, coronary heart disease (CHD); stages may include but are not limited to – healthy behaviours, unhealthy behaviours, changes in risk factors as indicators, early signs of disease (possibly reversible), disease symptoms (irreversible), disease complications.

Outcome 4

Identify and respond to an exercise participant’s risk level.

Performance criteria

4.1 Using visual observation, questioning, and/or available data a participant’s risk profile for various diseases is identified.

Range must include at least two of the following – diabetes, stroke (CVA), cancer, coronary heart disease (CHD).

4.2 The risk profile generated and actions recommended are explained.

Range actions may include but are not limited to – additional medical supervised screening, doctor’s referral, recommend review of programme, a repeat of a test/screening at a later date, continue/begin exercising.

Outcome 5

Identify and act on indicators of excessive exercise stress.

Performance criteria

5.1 Indicators of excessive exercise stress are identified.

Range may include but are not limited to – pale skin, excessive sweating, loss of co-ordination, slumped posture, minimal sweating, shallow and rapid breathing.
5.2 Exercise participants with indicators of excessive exercise stress are identified, approached, and questioned.

Range on at least three occasions.

5.3 Actions to be taken when excessive exercise stress is detected are described.

Range may include but is not limited to – stopping the exercise, rehydration, cooling, recovery position, lowering intensity, further monitoring, emergency procedures, recommending doctors clearance/check-up, recommend review of programme.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

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