



Australian Government

SISFFIT031 Implement injury prevention strategies

Release: 1

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Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to incorporate an understanding of injury prevention into fitness instruction, programming and provision of fitness advice. It involves the application of foundation knowledge and skills to support the encouragement of healthy posture, effective movement patterns and safe exercise technique.

This unit requires the ability to screen the injury risk of clients who have a history of current and/or recurrent injury, within the scope of practice as part of or following industry endorsed pre-exercise screening and risk stratification protocols.

It applies to advanced personal trainers who analyse the risk of injury, re-injury or development of avoidable injury complications as well as client response to injury prevention in consultation with relevant medical or allied health professionals. Advanced personal trainers typically work autonomously in controlled and uncontrolled fitness environments. Work is performed according to relevant legislation and organisational policies and procedures.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Fitness

Unit Sector

Fitness

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Consolidate understanding of

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Source and access information on injury prevention relevant to prevention of recurrence or development of

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| injury prevention. | secondary injuries. |
| | 1.2 Source and analyse data on common injuries for clients using fitness services. |
| | 1.3 Use knowledge of injury prevention strategies in day-to-day professional practice. |
| | 1.4 Discuss/explain how understanding of injury prevention strategies contribute to safe/optimum technique and skill development. |
| | 1.5 Use a wide range of terminology relevant to injury prevention and fitness outcomes. |
| 2. Analyse client risk of injury. | 2.1 Conduct pre-exercise screening using industry endorsed screening protocols. |
| | 2.2 Review client history of injury, fitness level and risk factors that may lead to injury or complications for specific fitness activities. |
| | 2.3 Observe and analyse client movement and exercise capacity against accepted movement analysis and exercise technique standards. |
| | 2.4 Determine need for further functional evaluation and refer client to appropriate allied health professional as required. |
| 3. Develop and implement injury prevention strategies. | 3.1 Analyse various exercises, exercise techniques and fitness activities in relation to injury risk. |
| | 3.2 Develop injury prevention strategies in consultation with client, and appropriate allied health professional as required. |
| | 3.3 Explain injury prevention strategies to client. |
| | 3.4 Use preventative strategies in fitness instruction, programming and provision of advice to minimise likelihood of client injury. |
| | 3.5 Monitor client progress and seek guidance from, or provide feedback to, allied health professional as required. |
| | 3.6 Adjust preventative measures and interventions in response to ongoing client monitoring. |
| | 3.7 Maintain client records of injury prevention strategies. |
| 4. Update knowledge of injury trends and prevention. | 4.1 Evaluate own professional performance and identify potential improvements for future implementation of injury prevention strategies. |
| | 4.2 Identify and use opportunities to update and expand own knowledge of injury trends, preventative measures and interventions. |
| | 4.3 Monitor response to changes made to own professional |

practice or instruction.

4.4 Continue to adjust own practice to optimise results.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	• source and comprehend often complex injury prevention information and evidence-based research • interpret pre-exercise screening and fitness appraisal information.
Writing skills to:	• develop detailed client profiles and training records pertaining to prevention strategies and guidance received from medical or allied health professionals.
Oral communication skills to:	• use open and closed probe questioning techniques to: • determine client history of injury, fitness level and risk factors.
Teamwork skills to:	• collaborate with various professionals and client in order to establish and follow through with the most appropriate injury prevention strategies for the client, if required.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

Assessment Requirements for SISFFIT031 Implement injury prevention strategies

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role. This must include period(s) totalling at least fifteen hours comprising at least ten different client contact sessions, and:

- effectively use knowledge to improve own professional practice for injury screening, developing and monitoring injury prevention strategies in at least five different client sessions
- conduct sessions that individually or cumulatively incorporate:
 - pre-exercise screening using industry endorsed protocols, including:
 - history of injuries
 - current function at past injury sites
 - industry endorsed risk stratification
 - observation and analysis of the following using at least three functional movements for each client in line with accepted movement and technique standards:
 - functional movement capacity for at least five clients using exercise observation in all of the following movement patterns and scenarios:
 - push
 - pull
 - squat
 - lunge
 - rotate
 - overhead press
 - overhead pull
 - with and without equipment
 - loaded and unloaded
- records of gait observation for at least three clients:
 - view:
 - anterior
 - posterior
 - lateral
 - gait cycle:
 - stance phase
 - swing phase

- flight phase
 - double stance phase
- evaluation:
 - ankle
 - foot
 - tibia
 - knee
 - pelvis
 - trunk
 - head
 - arm
- foot cycle:
 - foot strike
 - mid-stance
 - toe off
- evaluation of:
 - sequence of movement at each joint
 - sequence of muscle actions
 - efficiency of movement
- evidence-based injury prevention strategies supported by relevant research regarding the cause and prevalence of commonly occurring injuries:
 - incidence
 - severity
 - prevalence
 - cause
 - type of injuries
- implementation of at least three injury prevention measures for each client, involving:
 - screening
 - protective equipment
 - hydration and healthy eating
 - pre-exercise, warm-up and stretching
 - neural stretching
 - recovery strategies and physical conditioning
 - frequency and duration of participation
 - correction of technique
 - checking for adequate rehabilitation following injury
 - appropriate management of risk factors that may predispose the client to further injury
 - staff training about risks, referral and appropriate exercise programming for specific populations

- collaboration with medical or allied health professional, stakeholders and clients to develop, implement and monitor injury prevention and management strategies.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- legislation and regulatory requirements:
 - appropriate collection and storage of client information
 - application of legal and ethical limitations of own role
 - work health and safety/occupational health and safety
 - equipment safety standards
- defined roles and responsibilities of the advanced personal trainer and their ethical and legal limitations in implementing injury prevention and management strategies
- risk factors associated with a range of injuries:
 - personal and internal factors
 - past injury to an area
 - biomechanics
 - exercise technique
 - extrinsic factors
 - equipment used
 - gender
 - age – growing as well as ageing bodies
 - training load (acute and cumulative)
 - fitness level
 - posture
 - trainer/instructor knowledge and skill
- basic principles of biomechanics to enable the application of appropriate techniques and strategies to minimise injuries for specific fitness activities
- correct execution and teaching points for the following primal functional movement patterns and the implications of results in regards to injury prevention strategies:
 - push
 - pull
 - squat
 - lunge
 - rotate
 - overhead press
 - overhead pull
- pathology of common injury for specific activities, and injury response and the phases of healing and repair:
 - primary or secondary

- direct or indirect
- acute or overuse
- musculoskeletal
- anatomy of the musculoskeletal system and its supporting systems to enable the design of appropriate programs
- function of the neuromuscular system to enable design of appropriate programs
- range of motion and stretching techniques to enable inclusion of exercise variables to suit client functional capacity
- role of exercise and fitness in the prevention, management and rehabilitation of common exercise related injuries and falls prevention
- appropriate measures for joint mobility:
 - visual observation
 - use of appropriate equipment
 - joint specific range of movement
 - tests for specific joints
 - segmental mobility of vertebral section
 - active range
 - functional range
 - hypo or hypermobile joints
 - contralateral
 - symptoms
- common types of re-occurring injuries:
 - sprains
 - strains
 - primary or secondary
 - direct or indirect
 - acute or overuse
 - musculoskeletal
- appropriate tests for muscular strength:
 - relative strength
 - muscular endurance including functional endurance
 - primal functional movement patterns and muscle activation for muscle groups used:
 - push
 - pull
 - squat
 - lunge
 - rotate
 - overhead press
 - overhead pull
- functional anatomy of joints:

- glenohumeral:
 - bones
 - ligaments
 - related structures
 - muscles acting on the joint
- elbow:
 - bones
 - ligaments
 - related structures
 - muscles acting on the joint
- lumbo–sacral:
 - bones
 - ligaments
 - muscles acting on the joint
- intervertebral:
 - bones
 - ligaments
 - muscles acting on the joint
- hip (coxal):
 - bones
 - ligaments
 - muscles acting on the joint
- knee (tibiofemoral and or patellofemoral):
 - bones
 - ligaments
 - related structures
 - muscles acting on the joint
- ankle (talocrural):
 - bones
 - ligaments
 - related structures
 - muscles acting on the joint
- bony landmarks:
 - mastoid process
 - spinous process of the vertebrae
 - spine of the scapula
 - inferior angle of the scapula
 - acromion process
 - coracoid process
 - xiphoid process

- lateral epicondyle of humerus
- head of the radius
- styloid process
- olecranon process
- umbilicus
- anterior superior iliac spine
- posterior superior iliac spine
- iliac crest
- ischial tuberosity
- greater trochanter
- lateral femoral condyle
- medial epicondyle
- lateral epicondyle
- superior border of the patella
- inferior border of the patella
- lateral malleolus
- medial malleolus
- calcaneus
- factors affecting movement patterns and exercise performance, including deviations in posture or functional limitations at commencement, during, at completion of exercise or movement:
 - asymmetrical muscle tone
 - range of movement and mobility of major joint complexes
 - spinal curvature – lordosis, kyphosis, scoliosis
 - scapula setting:
 - winging of scapula
 - anterior tipping/tilting
 - upward/downward rotation
 - pelvis position:
 - anterior/posterior
 - rotation
 - knee alignment:
 - varus/valgus
 - foot alignment:
 - internal/external rotation
 - pronation/supination
 - forward head
 - stability of major joint complexes
 - muscle strength and activation
 - neuromuscular control

- sitting/standing/supine positions
- processes for, and reasons for referral to appropriate medical or allied health professionals:
 - pain upon presentation to initial session/induction
 - history of uncontrolled/unresolved pain
 - pain during movement or exercise
 - static postural deviations
 - an inability to correct static or dynamic posture
 - restricted joint range of movement, strength imbalance or balance, stability or coordination concern that is limiting function
 - a diagnosed muscle, bone or joint problem with medical or allied health advice that the problem could be made worse by participating in physical activity/exercise
 - client history of an injury that has resulted in residual functional limitation
- industry endorsed scope of practice.

Assessment Conditions

Skills must be demonstrated in:

a fitness industry workplace or simulated environment with clients with real or simulated health and fitness goals.

Assessment must ensure access to:

- anatomical and physiological information and resources related to injury prevention
- anatomical models or images
- legislation and organisational policies and procedures in relation to injury prevention strategies.

Assessment must ensure use of:

- planning and evaluation templates with space to identify improvements to professional practice
- client record forms
- fitness industry standard equipment suitable for analysing client risk of injury and conducting range of movement tests
- industry endorsed client pre-exercise health screening and risk stratification tools
- at least four of the following postural screening equipment:
 - plumb line
 - grid
 - photographic technology
 - video analysis
 - tape measure
 - goniometer
 - flexometer

- plurimeter
- pressure biofeedback unit
- medical or allied health professionals for referral processes; these can be:
 - medical or allied health professionals in the workplace, or
 - individuals who participate in project activities, role plays or simulated activities, set up for the purpose of assessment, within a workplace or training organisation
- clients; these can be:
 - clients in an industry workplace, or
 - individuals who participate in role plays or simulated activities, set up for the purpose of assessment, in a simulated industry environment operated within a training organisation.

Assessment activities that allow the individual to:

- demonstrate ability to incorporate injury prevention knowledge into the instruction of sessions, catering for:
 - beginners, intermediate and advanced participants
 - low and high impact.

Assessors must satisfy the Standards for Registered Training Organisation's requirements for assessors, and:

- have achieved a Diploma of Fitness or above; and
- have at least 2 years consecutive post qualification fitness industry experience in the application of the skills and knowledge of the Diploma of Fitness.

Links

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