

MUSCULOSKELETAL ENTRY STANDARD

PRINCIPLES FOR DECISION-MAKING

Musculoskeletal capability

1. Military service is hard on the skeleton, joints and soft tissues. To withstand initial training and military service, the musculoskeletal (MSK) system must be capable of movement and weight-bearing. Pain, reduced structural integrity, bone or joint deformity, limited joint range of movement, or restricted function will affect medical suitability for Australian Defence Force (ADF) entry.

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3. Defence Health Manual (DHM) [Vol 2 Part 5 Chapter 3](#)¹⁶⁰—‘Medical history and examination’ describes the clinical examination. The lower extremity, upper extremity and axial skeleton need to be considered in relation to the candidate’s job preference. Army combat roles¹⁶¹ and specialist jobs may require a higher standard of MSK health because of the physical stressors. However, all candidates must have an MSK system capable of:

- a. lifting, gripping, climbing, writing and signalling
- b. marching, running and standing for extended periods
- c. squatting, crawling, and negotiating obstacles and cramped spaces
- d. load carrying and manual handling
- e. firefighting, damage control and casualty handling
- f. negotiating obstacles and confined spaces.

Class 1 standard

4. Unless otherwise specified in this annex, a candidate should be considered Class 1 if they have all of the following:

¹⁶⁰ <http://intranet.defence.gov.au/home/documents/data/ADFPUBS/DHM/volume2/part5/03.pdf>

¹⁶¹ Defined by requirement to complete the Combat Arms Physical Employment Standards Assessment (CA PESA). See Army Standing Instruction (Personnel) (ASI(P)) [Part 8 Chapter 4](#)—‘Physical training’ for the other rank and officer roles required to complete CA PESA.

- a. full range of movement
 - b. no pain
 - c. no symptoms
 - d. no instability
 - e. no functional impairment
 - f. no regular medication.
5. A history of an MSK condition is not a reason for rejection if the condition is fully resolved. For this annex, fully resolved means the candidate has all of the following:
- a. full range of movement
 - b. no pain
 - c. no symptoms
 - d. no instability
 - e. no functional impairment
 - f. no regular medication
 - g. at least 6 months since surgery or 3 months since completion of non-operative management.
6. The ADF acknowledges that the natural history of MSK conditions may involve deterioration over time.

Uncertainty or doubt

7. If a candidate presents with an acute or symptomatic MSK condition that is likely to be self-limiting, they should be assigned Class 3T for up to 12 months. If the condition does not resolve in this time, the candidate should be assigned Class 4.
8. Where suitability for ADF entry is uncertain, medical officers (MOs) should consider the candidate's ability to complete job-relevant pre-entry physical fitness assessments and/or seek a functional assessment or specialist orthopaedic opinion (if necessary). A functional assessment may be from a sports physician, sports physiotherapist or podiatrist (as relevant) and should describe what the candidate is capable of doing in context of the injury/condition and the job preferences.
9. Diagnostic imaging is only required where it will support the MO's decision-making or at the request of a specialist. If doubt remains, the case is to be discussed with chief medical officer Defence Force Recruiting (CMO DFR).

Class 4 standard

10. Candidates are unsuitable for ADF entry (Class 4) if they do not meet the Class 1 standard. For example, if they have conditions causing pain or affecting function; chronic or inflammatory (rheumatological) conditions; malignant conditions; or conditions requiring regular medication, prosthesis, custom footwear, regular specialist review or clinical aids (other than orthotics).

Medical reports

11. A report from an episode of care may be a discharge from care report, operation report, treating practitioner report, functional assessment and/or specialist report (as relevant).

12. If a report(s) is not available for a historical condition and there is no clinical doubt, the medical class decision can be made without the report. If further information is needed to make the decision, a current functional assessment and/or specialist opinion may be requested.

Conditions of interest

13. Rather than provide an exhaustive list of conditions, this annex describes conditions and surgical procedures of specific interest to the ADF. It is divided into sections as follows:

- a. **Musculoskeletal tissues.** This provides factors relevant to conditions of the:
 - (1) bones, including fractures
 - (2) joints and articular cartilage
 - (3) ligaments, tendons and muscle.
- b. **Lower limb region.** This provides factors relevant to hip and pelvis conditions, knee conditions, and foot and ankle conditions that are of particular relevance to the ADF.
- c. **Upper limb region.** This provides factors relevant to shoulder conditions, elbow conditions, and hand and wrist conditions that are of particular relevance to the ADF.
- d. **Spine region.** This provides factors relevant to spine conditions that are of particular relevance to the ADF.

MUSCULOSKELETAL TISSUES

Bone conditions and fractures

14. Initial training and military service require full function and the ability for the bony skeleton to weight bear in lower and upper extremities. Fractures must be completely united. Residual deformity is only an issue if the deformity impedes

functioning of the MSK system, impairs full function or is significant enough to increase the risk of fracture.

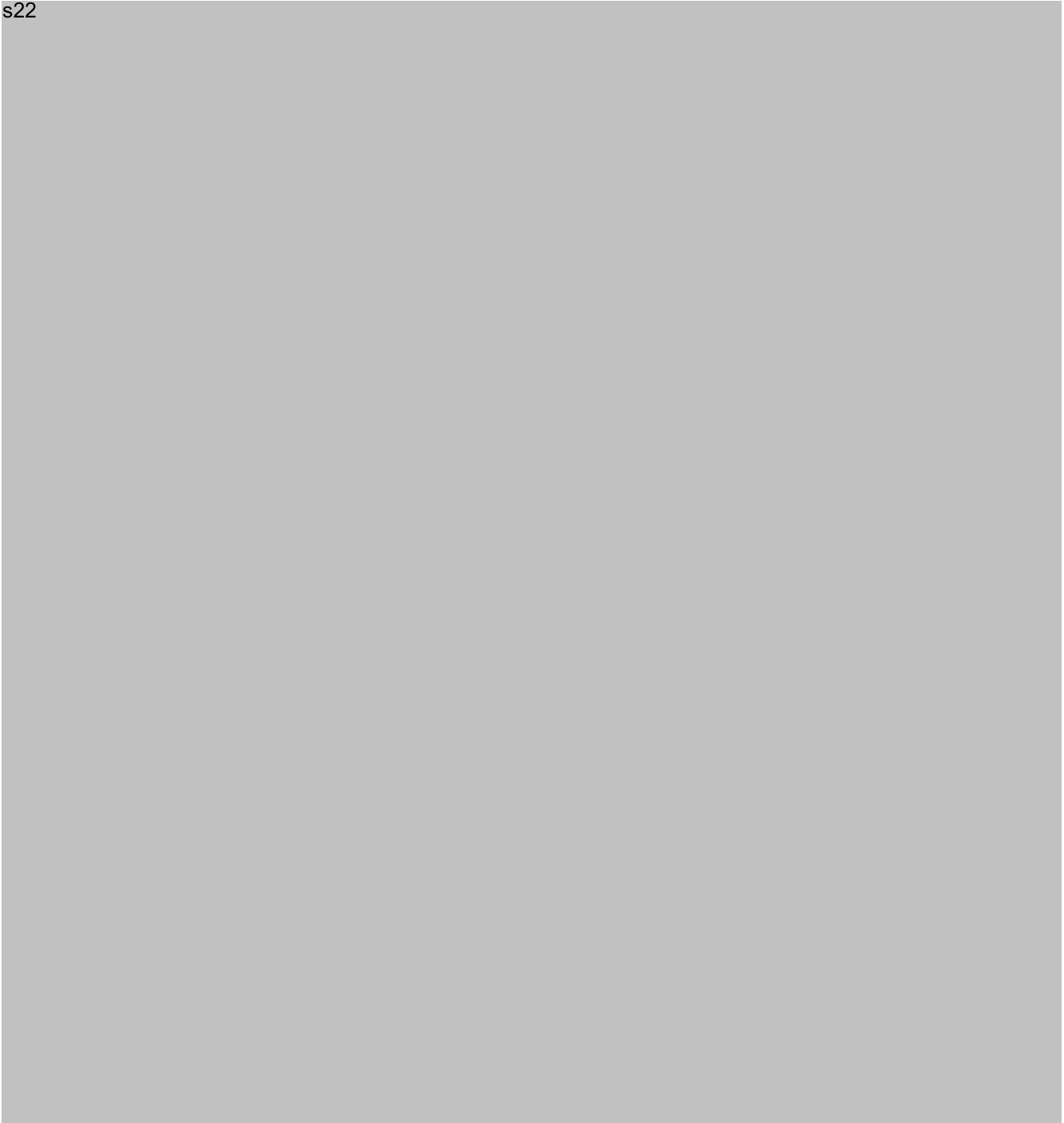
15. The key MSK factors affecting fitness for ADF entry are movement and weight-bearing; however, the following should be considered during the assessment process:

- a. whether fractures affect the bone blood supply and may result in avascular necrosis of the bone leading to bone and joint dysfunction
- b. whether a fracture or dislocation injury has caused a functional limitation
- c. whether pathological lesions of bone such as large cysts, tumours, reduced mineralisation (osteopenia and osteoporosis) and infection (osteomyelitis) will reduce the strength and integrity of bone or increase the risk of fracture
- d. whether conditions of bone require medical surveillance or have a risk of recurrence
- e. whether bony conditions or other health conditions require regular medication or specialist review.

16. Table 6F-1 provides decision factors for specific fractures and bone conditions of interest to the ADF. If a condition is not listed, clinicians are to apply the principles for medical suitability decision-making.

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Knee conditions

25. For all knee conditions, the MO is to check that the candidate is able to weight bear and load the knee joint without symptoms (eg weight training, running and sport).

Table 6F-6F-5: Knee conditions

Serial	Conditions and decision factors	Class
5.1	Anterior Cruciate Ligament (ACL) injury. Report from episode of care confirms all the following: <ul style="list-style-type: none">• 12 months since surgical management or non-operative treatment• condition fully resolved, including full range of movement; normal quadriceps strength compared to contralateral side• no instability with Lachman and pivot shift tests; stability with mini squat, one-legged squat, duck walk, and hopping side to side• returned to physical activity following injury• no intraoperative or imaging evidence of significant degenerative change.	1

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