ROWING AUSTRALIA

BODY COMPOSITION ASSESSMENT CONSIDERATIONS

1. Overview

Assessments of body composition provide a useful tool to determine the impact of nutrition strategies and training interventions. However, such activities have the potential to cause harm. Protocols should be established and implemented before, during and after assessments of body composition to reduce this risk.

These guidelines seek to safeguard the athlete and apply to each individual athlete, their coach(s) and their local support network. This includes athletes and members of the support or external teams, involved in RA approved research; or as part of domestic or international team training camps and competitions. They relate primarily to service delivery in the senior team through the national training centres however the underlying principles should be supported in the rowing pathway through the NIN and wider rowing community with the understanding that services will be delivered by others and not under the direct control of Rowing Australia.

2. Methods and Protocols of Body Composition Assessment

For the purposes of these considerations, the term "body composition assessment" will be used to describe a range of methods including, but not limited to:

- Dual X-ray densitometry (DXA)
- Surface anthropometry (including skinfolds)

Best practice protocols to optimise the reliability and precision of these techniques can be found elsewhere; the current considerations represent complimentary information that consider the impact of the protocol on the athlete.

Body mass weighing (via scales) may be undertaken for a variety of reasons in rowing including as part of a body composition assessment, for understanding the effectiveness of dietary changes or changes in environment in between more complete body composition assessments. It may also be used for other reasons such as assessment of power to weight,

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fluid balance assessments, calculating nutrition targets such as for performance supplements, carbohydrate needs etc. For the purpose of this guideline body mass weighing will be considered as separate from body composition assessment with the understanding that Rowing Australia supports only purposeful, respectful and sensitive use of this information.

3. Principles of Body Composition Assessment

- The underpinning philosophy of body composition assessment is 'first do no harm', with the aim to ensure positive outcomes for the athlete.

- Any body composition or weight goals identified for an athlete should be discussed with the CMT for consideration of the potential performance benefits and/or risks of body composition assessments and interventions.

- Each athlete should be empowered to have ownership of their body composition assessment, by being provided with choice and decision making capacity and personal control of how their body is being assessed. Where there are stressors associated with body composition assessment the athlete could be offered alternative forms of assessment or the option to withdraw from being assessed entirely.

- Body composition assessments in group settings should be avoided.

- Feedback and the interpretation of body composition assessment should be communicated professionally, between a qualified member of the support team, athlete and coach (with athlete consent).

- Potential benefits and risks of body composition assessment are identified and considered for each individual athlete.

- Considerations are made to ensure all athletes and their bodies are treated with due respect

4. Individual Athlete Consent

- Athlete consent can be provided in either a verbal or written form. Valid consent should involve several components:
    - Consent should be voluntarily given; there should be no actual or perceived ramifications for self-exclusion from body composition assessment

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- Consent should be informed; practitioners breach their duty of care if they fail to warn the athlete of the risks associated with treatments or procedures they are going to perform
- Consent should be obtained from those with legal capacity to do so; adults (18 years and over)
- Children and athletes with intellectual disability require parental or legal guardian consent [NSO coaches within the NIN daily training environment are seen as holding legal guardianship]. While common law recognises that the rights of a child to consent increases as their ability to understand and comprehend increases, caution must always be exercised. Where parental consent is provided, minors need to be informed in a manner they can understand.
- In the case of verbal consent, the athlete's permission should be noted at the time in the relevant AMS record or clinical notes
- In the case of personnel changes in the athlete's coaching or support team, consent should re-confirmed

– Consent to share body composition assessment data with others (coaches, support team members) is to be given by the athlete.

5. Confidentiality

- AMS user activity is retained by the ASC indefinitely for audit and evidentiary purposes. Qualified practitioners may only access sections of the AMS, to which they have been specifically granted access and or data permissions by the ASC or Rowing Australia
- AMS users (i.e. athletes and or staff) are reminded of the AMS User Terms & Privacy Policy, please click here.
- All data related to body composition assessment (assessment, feedback, storage of data) should be treated as confidential medical information
- Athletes will be asked to provide consent to the assessment
- Athlete body composition and related information will be stored on AMS under Physique Assessment
- Body composition assessment data should not be displayed in a common area
- Individual body composition assessment data should only ever be discussed in a 'group setting' that involves relevant members of the athlete's support team and with their consent. Practitioner discretion should be used in all matters where an athlete expresses their personal concern(s) around 'who' their results may be shared with.

6. Factors Required for Body Composition Assessment

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- Athlete consent (see section above)
- Availability of personnel who are appropriately trained and credentialed
    - the AIS Sports Science Sports Medicine Practitioner Minimum Standards require all personnel conducting skinfold testing to hold current International Society for the Advancement of Kinanthropometry (ISAK) accreditation
    - Radiation training and certification through the Australian and New Zealand Bone Mineral Society (ANZBMS for any personnel conducting DXA assessment
- Appropriate and well-maintained equipment
    - equipment used in the assessment of body composition should be calibrated and maintained as per manufacturer's specifications and according to industry quality assurance standards
- Valid purpose for testing
    - The data gained from the assessment should be used to assess or inform training and/or nutrition interventions.
- The assessment should not be used in a punitive, derogatory or non-informative way.

7. Factors That <u>May</u> Preclude Body Composition Assessment

- Past or current history of disordered eating (DE) or eating disorder (ED)
    - The appropriateness of testing an individual athlete should be discussed with the athlete and relevant members of the disordered eating core multidisciplinary team (CMT) including sports dietitian, psychologist and/or doctor
- Body image concerns
    - An evaluation should be made of the risk that the assessment may exacerbate body image concerns, with consideration of processes and support that are in place to safeguard the athlete.
- Para athletes
    - According to the type of impairment, some modification of the assessment protocol and interpretation of results may be needed. If these cannot be accommodated, then the assessment should not proceed. For an athlete with an intellectual disability, considerations around the level of understanding of the entire process needs to be considered.

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- Athlete support systems
    - Consideration should be given to the medical, psychological and/or nutrition support systems available to the athlete in the daily training environment. If a change in body composition is suggested as a result of the assessment, adequate expertise and support for the athlete should be provided. Where there is no access to relevant support and expertise, body composition assessment should be avoided.
- Athlete age and level of competition
    - Variation in testing methods and frequency of testing is required according to the athlete's age and level of competition.

If appropriate safeguards concerning the above factors cannot be put in place, the rationale to proceed with body composition assessment should be reconsidered.

Table 1: Considerations for body composition assessments.

Issue	Comments
Purpose and follow up	These guidelines seek to safeguard the athlete and apply to each individual athlete, their coach(es) and their local support network. This includes athletes and members of the support or external teams involved in RA approved research; or as part of domestic or international team training camps and competitions. Any concerns that arise during body composition assessment and feedback activities should be discussed with the athlete's medical, psychology or nutrition core multidisciplinary team (CMT). Communication processes for referral should be established where the practitioner conducting the body composition assessment is not a member of this CMT.
Assessment method	Consideration should be given to the suitability and availability of different techniques. If athletes are uncomfortable with a proposed assessment method, alternatives could be discussed.
Assessment frequency	Protocols need to consider the precision and reliability of the technique in comparison to the likely change in body composition of the athlete. ISAK guidelines recommend that anthropometric assessments (e.g. "skinfolds") are not typically undertaken less than 6 weeks apart ANZBMS guidelines typically recommend that there should be at least 2-3 months between DXA assessments of body composition

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	It is important to manage or integrate all assessments into a single program to ensure that the athlete is not having different assessments within different squads or activities in which they are participating.
Assessment safety	DXA scans involve exposure to a small radiation dose.
Location and environment	Adequate privacy should be provided to the athlete during assessment. Assessment should occur in a designated room rather than in an open space.
Assessment scheduling	Although it is tempting to schedule a body composition assessment with an efficient and rapid timetable, particularly in the case of a sporting group, it is important to build enough time into each assessment to address any concerns of the individual athlete.
Data storage	The data should be treated as confidential medical information and stored appropriately
Pre-assessment education	Prior to a new assessment, the athlete should be supported with education regarding the rationale for the testing, the protocol itself, and how results will be used and stored. Group education may be appropriate but should also allow for athletes to discuss their individual concerns. Rushing through a tight time schedule can compromise the athlete's experience of an already potentially compromising situation.
Communication of results	Careful decisions should be made about the timing of the communication of the results (e.g. at the point of collection or at a specific consultation), and the personnel involved in the communication. Results should be discussed confidentially and separately with each athlete, rather than in a group forum or posted in a common space. Athletes should be encouraged not to share their results with other athletes. It is advised that images of the athlete generated from the body composition assessment tool not be provided to the athlete.
Access to results	The athlete should be aware of (and have consented to) the group of people with whom their results will be shared, in what format and the reason for this access.
Performance plans/contracts	Any body composition goals identified as part of Individual Athlete Performance Plans should be discussed with relevant members of the support team, including consideration of the potential performance benefits and or risks of body composition assessment and intervention(s).

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Additional resources:

- AIS-NEDC Position Statement on Disordered Eating in High Performance Sport
- Rowing Australia Disordered Eating Early Identification and Prevention Guideline

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