BRITISH ROWING

# Weighing Rowers and Coxes - Guidance

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TEAMWORK | OPEN TO ALL | COMMITMENT

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## Introduction

British Rowing has developed the following guidance around the practice of weighing rowers and coxes. After reading this document, if you have any questions or concerns, please contact British Rowing's Safeguarding and Integrity team.

This guidance document will be reviewed on an annual basis and aims to:

- Outline and provide best practice guidelines for weighing adults (seniors) or any Junior (J18 and under) on a nationally supported talent pathway[1] or at a Competition.
- Give information about the potential risks of weighing rowers and coxes.

British Rowing acknowledges the complexities surrounding weighing of rowers and coxes and we have a duty of care to safeguard the physical and mental health of the individuals, with a heightened responsibility if the individual is a child.

We recognise that in some situations, where the appropriate policies and procedures are in place, weighing individuals can be a useful tool to contribute to tracking changes in health, growth, aiding performance and progression. However, the need for this guidance is to prevent potential areas of concern due to some of the related psychological distress, which may come from weighing rowers or coxes, such as disordered eating, anxiety and depression.

With these factors in mind, British Rowing's position is that children should not be weighed unless they are on a nationally supported talent pathway. For clarity, a nationally supported talent pathway is one that is delivered by British Rowing/GB Rowing Team and enables access to appropriate guidance.

We have reviewed the reasons for weighing children in a club environment and apart from monitoring growth (alongside height), we do not consider any significant advantages or information gained from weighing athletes of this age who are not on a nationally supported programme.

For those participants who are on a nationally supported talent programme, weighing should only take place if there is a valid reason for doing so (outlined later in this document).

There will only be a legitimate reason for weighing a cox who is in a competition environment for the purpose of ensuring they comply with the minimum weight as set out in the competition rules. This minimum weight is set to safeguard coxes against the pressure to lose too much weight. At competitions, appropriate safeguarding measures should be in place to safely weigh a cox or rower who is J18 and under, such as ensuring they have privacy but are not alone with

[1] A nationally supported talent pathway is one that is delivered by British Rowing/GB Rowing Team and enables access to appropriate guidance.

an adult whilst being weighed. Further guidance can be found in British Rowing's Safeguarding Handbooks.

We encourage rowers and coxes, along with their parents/carers if the rower/cox is a child, to learn and understand the benefits of performance nutrition in their pursuit of optimising their rowing progress.

## Potential risks of weighing rowers or coxes

Within the UK Sport "*Eating Disorders in Sport: A guideline framework for practitioners working with high performance athletes*", lightweight rowing was identified as a "high risk" sport for the development of eating disorders. Evidence suggests an increased risk of disordered eating in competitive compared to non-competitive rowers (Kraus & Holtman, 2018); and in lightweight rowers compared to open weight rowers (Gapin et al., 2013). Furthermore, research suggests that up to 50% of rowers present with symptoms of disordered eating. Disordered eating is also linked to increased rates of injury and lower bone mineral density (Lundy et al., 2022).

There are a number of significant risks related to the weighing of rowers and coxes. Whilst making training decisions, coaches should be fully aware of the risk/reward scale when contemplating if weighing athletes has a tangible performance or training benefit. The list below is not exhaustive, but highlights areas needed for consideration.

Adolescent development and puberty can be complex for the vast majority of young people. The risks of developing an eating disorder/disordered eating (along with other mental health concerns such as self-harm, anxiety and depression) can be exacerbated by sports, as are other notable events such as moving to university and changes in environment. Eating disorders and disordered eating can affect anyone, both male and female. Weight is not an indication that a psychological issue related to food psychopathology or body image is present. Do not assume that a member needs to be 'underweight' to have an eating disorder or disordered eating.

In sporting populations, weight monitoring could place undue emphasis on the importance of weight for performance, encourage comparison between peers/teammates, and encourage risky strategies for weight manipulation. Tracking weight may carry more risks than benefits during adolescence, particularly if comparisons are drawn with other members or fully developed senior athletes. Furthermore, poor practices in capturing and reporting body weight also presents a risk.

The best practice guidance, which has been set out below, can reduce the risks of individuals potentially developing an eating disorder/disordered eating, or other mental health concerns. The implementation of the best practice guidance is therefore one of the key strategies to minimise the likelihood of problems developing due to sport.

If you suspect an individual may have an eating disorder or other mental health concerns, seek support and guidance (e.g. via your Club Welfare Officer, British Rowing's Lead Safeguarding

Officer, the individual's GP or Eating Disorder charities such as www.beateatingdisorders.org.uk/) – don't assume someone else will notice or deal with it.

Further education and information about disordered eating is available from http://www.deia.org.uk and the NSPCC have a podcast on eating disorders in sport The NSPCC Child Protection in Sport Unit podcast - Eating disorders

## Key Recommendations

### Weighing rowers or coxes aged 18 and over or J18 and under and on a nationally supported talent pathway

1. If clubs choose to weigh rowers for the purpose of measuring growth and development (i.e., to identify growth spurts), weight should be monitored alongside height, no more than monthly and ideally at the same time each month.

2. Coaches/clubs must seek consent from parents/carers and rowers/coxes. Data should be recorded and stored appropriately. Parents/carers and rowers/coxes have the right to refuse/withdraw consent at any time without any consequence.

3. Coaches should agree with the rower/cox the most appropriate method for obtaining the individual's weight. This may be weighing at the club or at home, and through self-reporting. Whichever method is agreed, the rower/cox has the right to keep their data private. Tact and discretion must always be prioritised when monitoring weight.

4. No subjective comments concerning the weight or body composition of any member, or comparisons with other athletes should be made by anyone, and those conducting/present should always be sensitive to the feelings of athletes and how they may respond to any comments concerning their body.

5. If weighing measurement takes place, it should be done in an area where no other individuals can see or hear the measurements except the person taking the measurements, with another appropriate adult present if the athlete is J18 and under.

6. For accuracy and consistency, the same scales should be used every time for taking weight measurements, as different models and makes can vary in their results.

7. It is inappropriate to weigh rowers for performance purposes without combining with other measures (e.g. power produced from a countermovement jump). If there is a clear rationale, it is recommended that standardised protocols and qualified practitioners are used to ensure valid interpretation.

8. Where there are health, performance, or injury concerns regarding weight and/or body composition, clubs and coaches should liaise with parents and seek advice from appropriately qualified practitioners, for example GPs, nutritionists, physiotherapists etc.

9. Clubs must educate rowers/coxes about the reasons for weighing.

10. Anyone who is concerned that a rower or cox has an eating disorder should raise this as a safeguarding concern with the individual's club, or with the Event Welfare Officer.

## Weighing lightweight rowers or coxes in Competition

1. No subjective comments concerning the weight or body composition of any member should be made by anyone, and those conducting/present should always be sensitive to the feelings of athletes and how they may respond to any comments concerning their body.

2. When weighing takes place, it should be done in an area where no other individuals can see or hear the measurements except the person taking the measurements, with another appropriate adult present if the athlete is J18 and under.

3. For accuracy and consistency, the same scales should be used every time for taking weight measurements, as different models and makes can vary in their results.

4. Anyone registered to cox at a Competition or entering a weight-restricted category has to accept, before the entry is submitted to the Competition, that they are consenting to being weighed.

5. Lightweight rowers or coxes, at their request, can be weighed at a Competition without being told or shown their weight. This may be relevant to individuals who have or have experienced eating disorders and who do not wish to know their weight.

6. Anyone who is concerned that a rower or cox has an eating disorder should raise this as a safeguarding concern with the individual's club, or with the Event Welfare Officer.

## Factors to Consider

a. **Body weight is not the same as body composition.**
The terms body weight and body composition are often incorrectly used interchangeably. Body weight is a measure of how much mass an individual has, measured typically in kilograms. Body composition is a description of what the human body is made of; and includes measures of body fat and muscle mass.

*Why does this matter?*
Whilst an individual could lose or gain weight, we would not know from which area/s this change has occurred from just weighing them. A weight measurement does not provide information about the breakdown of body composition. Furthermore, the weight of one individual should not be compared to another. Two rowers or coxes may have the same body weight but very different body compositions. One may have a greater muscle mass and less body fat mass than the other, but they will still weigh the

same amount.

**b. Body weight can change day to day**

Body weight can and does change day to day and over the course of a training session. This could be due to changes such as hydration, body water stores, food intake, fasting for religious purposes, stool weight and the menstrual cycle. Daily fluctuation can be as much as 2 kg.

*Why does this matter?*

Weighing an individual too frequently (more than once a month) is not an effective way of assessing long term changes in body weight. Long term changes in body weight are due to changes to the major components of body composition: bone, muscle and body fat mass. Tracking body weight more frequently will most likely show short term fluctuations from the reasons described above.

**c. Body weight and body composition will change during adolescence.**

As an individual grows in height, their body weight will also increase. This will be more apparent during the adolescent growth spurt (occurring between the ages of 9 and 15 in girls and between 12 and 16 in boys). A rower or cox's body composition will also change during the adolescent growth spurt.

*Why does this matter?*

The changes in body weight and body composition during adolescence will likely influence a rower's performance. Body weight taken along with height can be measured once a month to monitor growth and development.

**d. It cannot be assumed that an increase in weight will cause an injury in rowers or coxes.**

There is insufficient evidence that an increase in body weight will put a rower at risk of injury. Injury is complex and can be caused by a combination of risk factors such as inadequate fitness, insufficient recovery and poor technique.

*Why does this matter?*

An increase in body weight could be for a number of reasons such as an increase in muscle mass, which may actually positively influence an individual's performance and act as a protective mechanism against injury.

**e. Being overweight or underweight increases the risk of injury and poor health.**

Being overweight can have a negative influence on injury risk and poor health, however BMI is not an effective measure in an athletic population. If a rower is categorised as underweight (BMI of 18.5 or below), they are at risk of relative energy deficiency in sport (RED-S). RED-S is a result of insufficient calorie intake and/or excessive energy expenditure.

Note: An individual cannot be categorised as being clinically overweight or underweight through weighing alone.

*Why does this matter?*
Some of symptoms of RED-S include impaired concentration, anaemia, low bone mineral density and fertility problems. This may result in loss of training days and training quality from injury and illness. If an individual's energy intake is low, there is a high probability that there will also be nutrient deficiencies required for optimal body functions. Any health concerns around weight should be alerted to parents/carers and medical advice should be sought out from appropriately qualified practitioners (e.g. GP's, nutritionists and physiotherapists).

f. **A decrease in body weight will not necessarily improve a rower's power-to-weight ratio.**
Power-to-weight ratio is a term used in rowing as an indication of performance capability. The rationale behind this is that if power increases and/or weight decreases this will improve performance. Just as weight varies on a daily basis, so too does power. It therefore cannot be assumed that a decrease in body weight will improve performance. To determine the power-to-weight ratio, both a measure of power and weight is required. Power can be measured using a variety of sport science tests (e.g. countermovement jump test), and it is recommended that these tests are administered by qualified practitioners to ensure standardisation of protocols.

*Why does this matter?*
A decrease in a rower's body weight could be a result of a loss in muscle mass. This may cause a decrease in a rower's power-to-weight ratio. Therefore, weight alone cannot be used to determine a rower's power-to-weight ratio. Power can also be affected by factors such as fatigue, muscle soreness, food intake and hydration status.

## National Performance Programme Practices

The following information highlights the practices of the National Performance Programme regarding weighing rowers.

Rowers on the pathway squads (Foundation, Development and Junior or equivalent) have their height and weight monitored on one occasion per camp and trial to track growth and development of the rower. This information is used to flag whether a rower is in a growth spurt; which is considered to be a period of time where rowers are found to be more at risk to injury.

Based on their individual preferences, senior and junior rowers on National Performance Programmes have the option to track and record their own weight.

Some senior or junior rowers choose to weigh themselves alongside taking their morning hydration status, and others utilise a pre and post training weight (alongside monitoring fluid intake) to calculate their rehydration requirement to aid their recovery.

For performance purposes, weight is taken alongside a measurement of power (e.g. countermovement jump or time of flight) to calculate the power-to-weight ratio.

The performance nutritionist will ask for a weight from a senior rower as part of measuring body composition. This is always used in conjunction with performance markers.

If there are any concerns regarding weight of a rower this should be flagged to the doctor and is discussed with relevant sports science and medical staff taking into account confidentiality. Any body composition strategies are developed and monitored by qualified practitioners. Definitions Body Weight or Body Mass is a measure how much mass an individual has, measured typically in kilograms. Body Composition: is a description of what the human body is made of; and includes measures of body fat and muscle mass. Power-to-Weight ratio: Measurement of performance. Power output divided by body weight Body Fat Mass: The portion of the body that is composed of fat.

## Definitions

**Body Weight or Body Mass** is a measure how much mass an individual has, measured typically in kilograms.

**Body Composition** is a description of what the human body is made of; and includes measures of body fat and muscle mass.

**Power-to-Weight ratio** is the measurement of performance. Power output divided by body weight

**Body Fat Mass** is the portion of the body that is composed of fat.

## Links, Contacts and Further Information

Eating Disorder Charity
www.beateatingdisorders.org.uk

Disordered Eating in Athletes
www.deia.org.uk

Podcast
The NSPCC Child Protection in Sport Unit podcast - Eating disorders

British Rowing Lead Safeguarding Officer
lso@britishrowing.org

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