



Government of **Western Australia**
Combat Sports Commission



Body Mass Management Guidelines

For the health and safety of contestants and
issued under the *Combat Sports Act 1987*



PREPARE WELL
PERFORM BETTER



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Introduction

The Combat Sports Commission (CSC) seeks to promote a safety-focused and science-based approach to body mass management for combat sport athletes and discourages the use of high-risk weight loss practices. For these reasons the CSC advocates the Australian Institute of Sport (AIS) [Making Weight in Weight Category Sports Best Practice Guidelines](#) and strategically aligns by implementing the following.

Development of weight management guidelines

Discouragement of weight cutting practices being used by junior, debut and novice athletes

Provision of mandatory education activities for contestants and industry participants

Recommending contestants and trainers work collaboratively with qualified health professionals

Encouraging the industry to foster a culture that opposes and voices concern for rapid weight loss practices

The combat sports industry as a united front (contestants, trainers, seconds, gym owners/operators, officials, managers, matchmakers and promoters) ALL have a responsibility to prioritise the physical and mental health of the athlete.

The CSC *Body Mass Management Guidelines* are issued under section 10(1)(d) of the *Combat Sports Act 1987* to guide the management of body mass and weight loss.

These guidelines should not be interpreted as medical or legal advice and do not replace the need to seek medical assistance.

Combat Sports – Body Weight Concerns

Weight classes exist in combat sports to promote fair competition between similarly matched opponents. Contestants *make weight* when capable of weighing-in, at a pre-determined time, within a pre-determined weight class. The weight class is an agreed range of body weight (kg/lbs) selected from contest/sport rules. Contestants *miss weight* when incapable of weighing-in, within the agreed weight class at the agreed time.

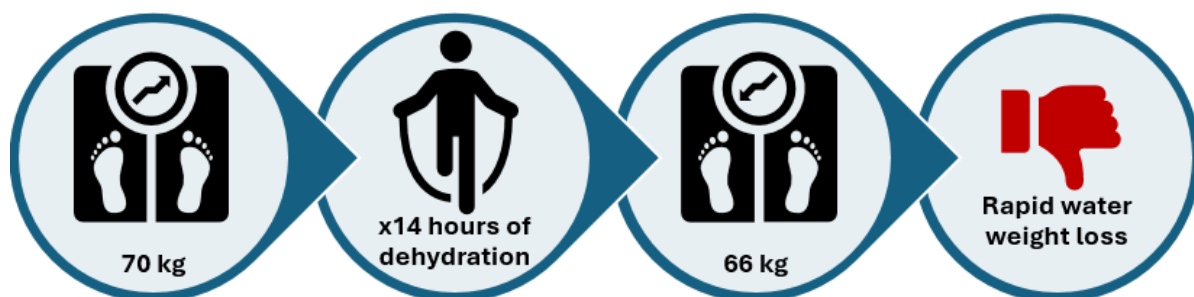
There are a variety of reasons why contestants may miss weight, including agreeing to inappropriate weight classes for their body size, agreeing to unrealistic timeframes to safely reduce their body weight or deliberately attempting to manipulate a weight class.

Many combat sport athletes engage in various strategies in the weeks to hours leading up to a weigh-in, to make weight. The industry often refers to this as *cutting weight* or *weight cutting*, but essentially it involves an individual attempting to reduce their body weight.



Steady and staged changes in body composition (particularly **fat loss** over several weeks) to meet a desired weight class is encouraged. However, the detrimental and dangerous practice of acute or **rapid weight loss (RWL)** to make weight is an ongoing and worldwide cultural problem within weight-classed combat sports.

Some athletes deliberately choose to manipulate their body weight through application of extreme dehydration (water loss) techniques to rapidly lose weight. Some combat sport trainers errantly promote, teach and advocate such techniques as the primary/only method for making weight.



RWL practices may impair performance and result in serious health and safety risks. Combat sport athletes have died while attempting to make weight for competition using RWL techniques. In addition, the practice of temporarily weighing less but later competing at a significantly greater weight presents not only a health and safety concern to the individual but may also create an imbalance to what was meant to be a safe and fair weight gap between two opponents.

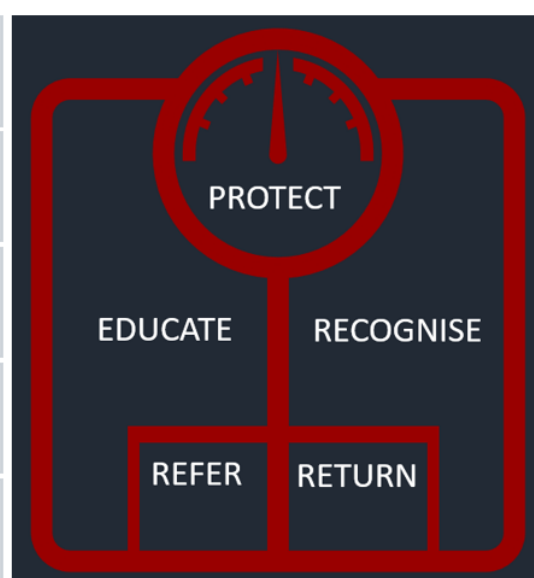


As an industry-wide health and safety concern the CSC urges contestants and trainers to change the culture and refrain from relying on and embellishing anecdotal RWL techniques. Alternatively, the CSC encourages the industry to pursue safe weight reduction options and to draw from evidence-based sports science knowledge to not only reduce the risks but to also ensure that athletic performance and physical prowess are not compromised.

Body Mass Management Plan

The *Body Mass Management Guidelines* are designed as a framework to provide a pragmatic approach to body mass management for contestants attempting to achieve a pre-determined weight class. There are five key components to the CSC's body mass management plan.

Protect	Protocols/rules to create weight classes and weigh-in procedures, minimise harmful weight making behaviours or reduce the risk of complications arising from rapid weight loss.
Educate	Knowing how to manage body mass safely, understanding the short & long term health effects from engaging in rapid weight loss and identifying disordered eating and eating disorders.
Recognise	Strategies for determining optimal weight class selection and safely making weight and responsibilities during matchmaking negotiations.
Refer	Seeking professional advice and support from those with expertise in body mass management and weight class sports such as sports dietitian, sports doctor and psychologist.
Return	Regaining or reducing body mass between contests, avoiding large fluctuations in body mass and fueling for training and contests.





PROTECT

Minimising harmful weight making behaviours or reducing the risk of complications arising from RWL in combat sports requires a multifaceted approach. The short and long-term health and safety of a contestant should be an industry-wide priority. The CSC has implemented various conditions, rules, contest protocols, policy and education to reinforce this priority.

The following tagline was adopted by the CSC as a direct campaign against dangerous weight loss practices. The CSC does not condone any contestant engaging in excessive and deliberate dehydration weight loss techniques nor any industry participant endorsing or encouraging the use of such techniques.



Legislation

Contestants and industry participants are registered subject to the [*Combat Sports Act 1987 \(Act\)*](#) and [*Combat Sports Regulations 2004 \(Regulations\)*](#). Breaches of the legislation may result in offences subject to penalty fines and can result in disciplinary action such as the suspension or cancellation of registration.

A summary of weight-related legislative sections are provided in the table below (following page). For full legislative wording and context please refer to the relevant legal references.

In accordance with section 53 of the Act it is an offence (liable to a fine of \$12 000) to provide false or misleading information to the CSC. Contestants and trainers are reminded that any declaration made regarding body weight, weight loss or reported amounts (kg) are subject to section 53.



Heading	Summary of legal requirements	Reference
<i>Prescribed classes of contestants</i>	Classes of contestants are part of the registration process and prescribed weight classes (maximum and minimum amounts applicable to the CSC's contest rules) are listed in Schedule 2.	Act - section 14 Regulation 5 and Schedule 2
<i>Books to be issued to registered contestants</i>	When registering a contestant the CSC must issue contestants with a record book and the record book contains certain information including weigh-in weight .	Act - section 35 Regulation 8C
<i>Applying for permits to conduct contests</i>	When a promoter applies for a permit to conduct a contest their application must include certain information. This includes the matchmakers details, proposed contest weigh-in date and venue, contestant details (names, weight classes and contest records) and the trainers and seconds for each bout.	Act - section 44 Regulation 17C
<i>Pre-contest weigh-ins</i>	Before a contest occurs, contestants must attend and submit to a pre-contest weigh-in that is required to take place within 24 hours before the contest. The weigh-in time and place is nominated by the promoter but must be approved by the CSC. The promoter and CSC appointee are present at the weigh-in and contestants are required to produce their record book for inspection. The CSC appointee ensures the weigh-in and recording of weights are properly carried out.	Act - section 48 Regulation 13
<i>Contestants to weigh-in</i>	Contestants are not allowed to compete without attending and submitting to the weigh-in .	Act - section 50
<i>Duties of promoter</i>	The promoter must not allow a contestant to participate in a contest unless the contestant has attended and submitted to the weigh-in .	Act - section 51
<i>Record of contest</i>	Before a contestant can participate in a contest they are required to produce their record book to the CSC appointee. The CSC appointee is required to record in each contestant's book, certain information including the contestant's and opponent's weight .	Act - section 52 Regulation 17A



Conditions of Registration

Under the legislation, all contestants and industry participants are registered with the CSC, subject to various conditions of registration ([Guidelines and Conditions for Combat Sport Registrants](#)). The CSC can impose disciplinary powers on a registrant for not complying with the conditions of registration.

There are specified weight-related requirements (applicable by role) in the conditions of registration, including the following:

Contestants:  are required to present at their pre-contest medical in a fit and healthy state and can be declared unfit to compete by the medical practitioner due to dehydration	Promoters:  shall ensure that contestants in each contest are reasonably matched for <u>weight</u>, competence and experience by engaging a matchmaker to match contestants or by being responsible for the duties of a matchmaker
Trainers:  must ensure contestants are not under or over matched with respect to experience, competence or <u>weight</u>	Matchmakers:  must take all steps to protect the health and safety of contestants by ensuring contestants are not under or over matched with respect to experience, competence or <u>weight</u>



Code of Conduct

The CSC's [Code of Conduct](#) outlines the standard behaviour required by all registrants and complying with the Code of Conduct is a condition of registration.

The Code of Conduct contains the following sections regarding RWL and registrants found to be using, assisting or encouraging unsafe RWL methods may be subject to disciplinary action.

2.2 Do not attempt, or assist another person, to make weight through excessive and deliberate dehydration or any other unsafe means of rapid weight loss.

2.3 Do not promote, depict, or encourage rapid weight loss or rapid weight loss techniques, including at weigh-ins or through event-related promotional or social media material.

4.3 Act within the rules and spirit of combat sports, including ... appropriate weight class selection.

Disciplinary action

The CSC can impose disciplinary actions on a registrant for not complying with the conditions of registration or Code of Conduct. Contestants presenting at a pre-contest weigh-in or pre-contest medical examination in a compromised state may be called into question, regardless of ability to recover prior to the contest. Trainers and seconds found to be encouraging the use of excessive and deliberate dehydration or other unsafe RWL methods may be subject to disciplinary action.

The CSC reserves the right to take disciplinary action against any person who violates the rules designed to protect the health and safety of contestants. In accordance with section 21 of the *Combat Sports Act 1987*, if the CSC is of the opinion that it is in the interests of the health and safety of a contestant, the CSC may impose any conditions or restrictions on the contestant it thinks fit or cancel/suspend registration, subject to a reasonable opportunity to be heard.



Contest Rules

Pursuant to the Act, combat sport contests must be held in accordance with rules approved by the Minister for Sport and Recreation. Copies of all the approved rules are available on the CSCs [website](#).

There are two types of approved contest rules:

- 1. CSC's Contest Rules (boxing, kickboxing, MMA and muay thai)**
- 2. Sanctioning Body Rules**

When a promoter applies for a permit for a contest, it is the promoter who nominates which approved contest rules they wish to use for their event.

However, where the absence of rules or conflicts between rules exist between any Sanctioning Body Rules and the CSC's Contest Rules, then the CSC rules prevail in the interests of health and safety. The pre-contest weigh-in process has been deemed to be *in the interests of health and safety* and having a pre-contest weigh-in is a legal requirement under the Act. Consequently, the CSC's Contest Rules for weighing-in will **always** prevail, regardless of any other weigh-in rules or process that may be in the Sanctioning Body Rules.

The CSC's weigh-in rules and policy apply to ALL contests in Western Australia.

Weight Classes and Missed Weight Policy

The CSC has implemented a [Weight Classes and Missed Weight Policy](#) which applies to all contests. This policy underpins the "Recognise" component of the body mass management plan and is discussed in further detail later in this guideline.

Anti-doping Requirements (IVs and Diuretics)

As a condition of registration and in agreement with the Code of Conduct, contestants are prohibited from using substances or methods as prohibited by the World Anti-doping Agency (WADA) and may be subject to anti-doping testing.

The use of diuretics (e.g. water pills) to induce weight loss for weight class sports is a WADA contravention.

The use of intravenous infusions or drips (IV) is a prohibited WADA method and therefore not permitted (more than 100 ml within 12 hours) except for medical reasons and with a therapeutic use exemption. Any contestant receiving an IV or any registrant or medical practitioner aware of a contestant being administered or using an IV, following a weigh-in, should notify the CSC immediately.



EDUCATE

The CSC strategically focuses on education as a pillar to its operations and all applicants are required to complete an online education unit prior to registration. Further educational information (including nutrition and hydration advice) is available from the [Contestant Preparation Standards and Guidelines](#) and the CSC's [health and safety website](#) page.

Health complications (see table below) arising from weight cutting and particularly RWL through dehydration are a global combat sports concern. Despite multiple (worldwide) deaths and hospitalisations from athletes engaging in RWL practices, the culture continues to exist. Trainers continuing to teach and rely on RWL strategies exacerbates the problem. Athletes embellishing the weight cutting process more than the bout itself or the hours spent training and honing their skills, sends the wrong message. The CSC implores the industry to change the culture of accepting RWL as a rite of passage and recommends trainers dissuade athletes from engaging in harmful weight making practices.

Potential Harmful Effects of Rapid Weight Loss Practices

Decreased muscle strength/endurance	Decreased kidney function	Severe changes in body electrolytes	Increased risk of brain injury
Decreased heart and cardiovascular function	Heat illness	Reduced energy utilisation	Blurred vision and dry eyes
Mood swings and mental changes	Nausea, headaches and fatigue	Reduced nutrient exchange and acidosis	Loss of life

Unsafe Weight Making Practices

The CSC strongly discourages contestants and trainers from using or promoting vomiting; laxatives; bowel preparation products; diuretics or “water pills”; diet pills or stimulants; untested supplements; prolonged food or fluid restriction; prolonged sauna, hot bath or heated-room exposure; exercise in heated environments; plastic/sauna/sweat suits or impermeable clothing.



Rapid Weight Loss Misconceptions

It is a misconception that all combat sport athletes engage in RWL. Many athletes and trainers do not agree with weight class manipulation and some in the industry equate it to a form of attempted cheating.

The motivation is often perpetuated by the false belief that a heavier athlete will always win a bout. So, an artificially low weight class is negotiated in advance (a weight class that is not indicative of the athlete's true weight). Prior to the weigh-in the athlete then attempts to rapidly lose weight, often involving the removal of water weight from the body through dehydration methods.

In the hours after a weigh-in and prior to the bout the athlete then attempts to regain their true weight or in some cases gorges to gain additional weight (rapid weight gain). Essentially now weighing more than the agreed weight class and potentially creating an unsafe weight gap between themselves and their opponent.

Being the heavier opponent in a bout does not guarantee a win and in many circumstances the lighter, more agile, better prepared and fully hydrated athlete takes the win.

Often those that choose to deliberately manipulate their weight, mistakenly believe or try to justify that everyone engages in RWL, but this is not the case.

"Everyone does it"



You may look and feel physically & mentally better after rehydrating but it's unlikely you've rehydrated the fluid surrounding your brain, within 24 hours.

"You can rehydrate before the bout"



Research has shown that athletic performance indicators are more likely to be compromised by those athletes who have engaged in RWL.

"The heavier athlete always wins"



Despite athletes and trainers believing that rehydration can occur in a short timeframe, reflected by athletes regaining weight, there is genuine cause for concern about the delay required to fully rehydrate cerebrospinal (brain and spine) fluids. Emerging research suggests that contestants who have undergone RWL through dehydration may be more prone to incurring a concussion, KO or other injury during their bout.

Research has also shown that athletic performance indicators are more likely to be compromised by those athletes who have engaged in RWL. Unexpectedly "gassing out" or feeling "weak" or "sluggish" during a bout, despite regaining weight and rehydrating are commonly reported side effects.



Eating Disorders and Disordered Eating

Athletes in weight category sports often experience pressure to reduce body mass and body fat levels for sports performance...Typically, these athletes have an increased risk for poor body image, disordered eating and eating disorders.

(AIS – Body Mass Management in Weight Category Sports)

The CSC recommends that all trainers and managers recognise and understand eating disorders and disordered eating in athletes and adopt proactive prevention strategies. Combat sport gyms/trainers should provide support for optimised nutrition and positive body image for their athletes and utilise appropriate assessment of body composition.

Refer to the [AIS Disordered Eating in Sport](#) website for further information, including resources that gyms and trainers can use for creating an environment and culture to assist in the prevention of disordered eating.

Low Energy Availability and Relative Energy Deficiency

Weight loss will necessitate the creation of an energy deficit, which if severe can result in low energy availability (LEA). If this is sustained, the syndrome known as relative energy deficiency in sport (RED-S) can result, with significant health and performance implications.

(AIS – Body Mass Management in Weight Category Sports)

Trainers, managers and gyms should refer athletes for appropriate professional assessment and support in the circumstances shown below. Athletes who are identified in these categories should be provided with ongoing monitoring, support and regular review by their trainers. Where a trainer, manager, matchmaker, or promoter observes red flags for disordered eating, body image distress, or low energy availability, the athlete should be encouraged to seek support from a sports dietitian, psychologist, or medical practitioner. The athlete should not be pressured to continue a weight cut or accept a lower weight class while these concerns remain unresolved.

Suspected
disordered
eating



Known or
suspected
LEA/REDs



Bone stress
injury or
menstrual
dysfunction



Recurrent
injuries
and/or
illnesses



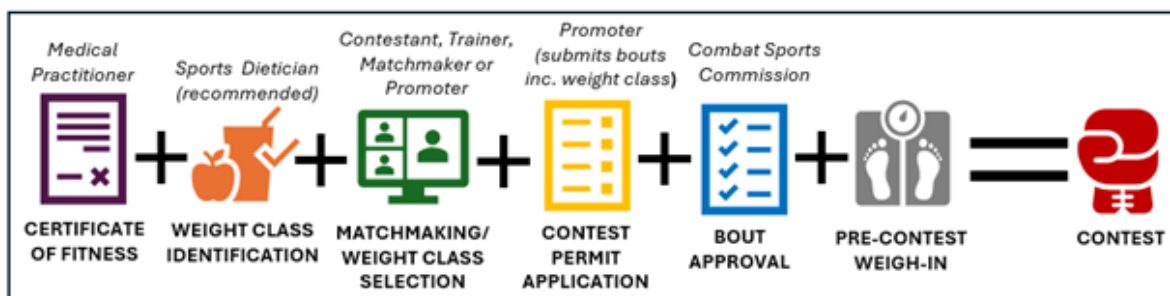


RECOGNISE

The CSC encourages contestants and trainers to use diet and exercise to slowly reduce body mass for meeting any desired weight class. If planning a weight descent, safe body weight reduction strategies and professional nutritional advice should be sought. The focus of reducing body weight should be on fat loss over a staged timeframe, and not water weight loss via dehydration. Evidence-based exercise and nutrition principles should be adopted by trainers/gyms and contestants should not rely on peer or gym based anecdotal evidence. Under no circumstances should junior, debut or novice athletes be encouraged to engage in weight cutting at all, and they should instead compete at their walk around weight with a focus on skills/athletic development.

Early Identification

Prior to a bout taking place, there are numerous stages (see figure below) where weight considerations and weight discussions should occur. Contestants AND industry participants all have a role to play in ensuring an appropriate weight class is selected for each contestant prior to a bout.



Body Composition Assessment

Body composition assessment is integral to the identification of an appropriate weight class for each athlete and involves more than simply standing athletes on the scales. Trainers should develop appropriate personalised plans for their athletes and should routinely ensure body composition assessments are undertaken (e.g. by a registered dietitian, exercise physiologist or seek a Dual-Energy X-ray Absorptiometry (DEXA) scanning service).

Identification of an appropriate weight category is advocated, with a focus of this decision being placed on the athletes presenting body mass and composition, complemented by other pertinent factors such as available time for body mass manipulation, prior body mass management experiences, current diet and training load, plus presenting metabolic and mental state.

(AIS – Body Mass Management in Weight Category Sports)



Trainers who do not know the current and true weight of their athlete should not be negotiating on a weight class or assume an athlete's weight class. Contestants should be honest when disclosing or discussing their current weight with their trainer, medical practitioner or matchmaker.

Weight Classes Available to Choose From

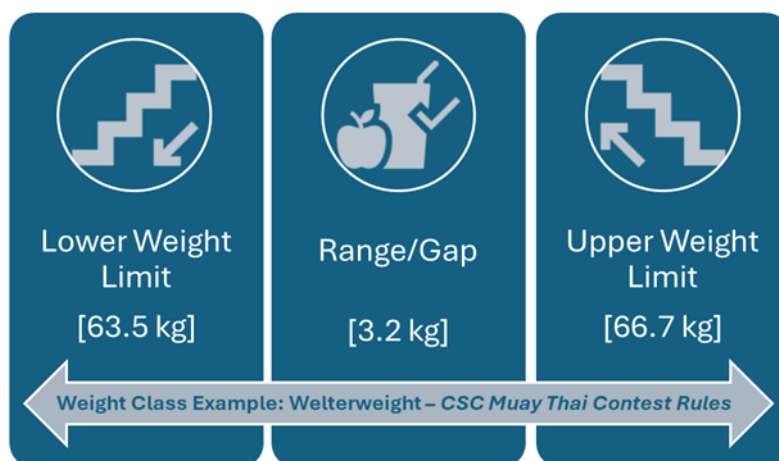
It is the promoter (not the CSC) that nominates which [approved contest rules](#) they wish to apply at any given event. The contest rules then contain the weight classes (list) that are available to choose from. When matchmaking occurs, the weight class chosen for each bout **must** be selected from the contest rules that the promoter has nominated. Matchmakers, trainers and contestants should always ensure they know which contest rules apply for each event and what weight classes are then applicable.

Different contest rules contain different weight classes, even for the same sport.

For example, boxing weight classes are different to muay thai weight classes and even within the same sport, such as muay thai, different sanctioning bodies use different weight classes.

Trainers, contestants, matchmakers or promoters cannot make up their own weight class or submit *any* weight range (refer to the [Weight Classes & Missed Weight Policy](#)). Weight classes that fall outside of the weight categories specified in the nominated contest rules, including catch weights, will not be accepted by the CSC. The contest rules govern the list of weight classes, not separate agreements or arrangements between individuals.

Weight classes must also consist of both a lower AND an upper limit to allow for safe and individual weight fluctuations.





In other words, the weight class range allows for athletes to weigh-in at any amount **between** two numbers. For example, a weight class listed as 63.5 kg - 66.7 kg allows for a gap of 3.2 kg. This gap acts as a safety net for any unexpected or natural weight fluctuations that an athlete may incur leading up to a weigh-in. The weight class range/gap also allows for athletes to retain water weight and weigh-in, in a hydrated state without being overly concerned that they may miss weight.

Contestants, trainers, matchmakers and promoters should **not** be negotiating or agreeing to singular (no range/gap) weigh-in weights. Doing so places greater pressure on athletes to meet a precise, restrictive and often arbitrary number, that is often only achievable through dehydration. This practice needs to cease and has only developed because of cultural influences on certain combat sports.

Negotiating a Weight Class

Promoters are required to have a permit to conduct a combat sports contest and as part of the permit application the promoter/matchmaker must submit a contest card to the CSC. The contest card details must be submitted to the CSC 21 days prior to the event and must contain the details for each bout, including the names of matched opponents and their nominated weight class.

CONTEST CARD		
Bout	Contestants	Weight class (kg)
1	Donnie Donatello v Leo Leonardo	69.9 – 72.5
2	Chuck Norris v Bruce Lee	63.5 – 66.7
3	Daisy Johnson v Peggy Carter	59 – 61.2
4	Po Ping v Tai Lung	90.7 – 100
5	Chun Li v Sakura Kasugano	52.2 – 53.5

Before the submission of the contest card, trainers and the promoter/matchmaker will need to engage in matchmaking discussions and determine a suitable weight class for contestants. At this point in time consideration should be given to the **current** weight (often referred to as *walk around weight*) of the athletes involved.

When settling on a weight class there is an expectation for contestants, trainers and matchmakers/promoters to ensure that a safe weight class and suitable opponent is selected. This is only achievable if trainers and the matchmaker/promoter are cognisant of the contestants walk around weight when negotiating the match-up.



Factors to consider for determining an appropriate weight class during matchmaking include the following:

 Contestants current weight (walk around/training weight) at the point in time when matchmaking is being negotiated.	 Timeframes or deadlines (number of days until the pre-contest weigh-in will be conducted).	 Amount of weight required to be reduced within timeframe/deadline to meet proposed weight class.	 Contestants body type or composition with consideration of current body fat% and muscle mass%.
 Experience level of contestant and previous history of making or missing weight.	 Age of contestant with consideration for increased weight gain during natural growth phases and muscle development.	 Gender of contestant with consideration of water retention during hormonal fluctuations associated with the menstrual cycle or contraceptive use.	 Aim to meet the middle of a suitable weight class to allow for any unexpected fluctuations and to ensure hydration is maintained.

Determining the ideal weight class requires transparency and disclosure of walk around weight. Choosing a weight class that can only be met through RWL is not acceptable. Contestants are advised to weigh themselves without shoes and in minimal or similar clothing to contest weigh-in clothing and to self-report their weight to their trainer or the matchmaker/promoter. It should not be assumed that just because an athlete has competed in a lower weight class previously that they should continue competing in the same weight class.

Pre-contest (official) Weigh-in

Prior to a contest, contestants must attend a pre-contest weigh-in, in accordance with the Act, the CSC's [Contest Rules](#) and the [Weight Classes and Missed Weight Policy](#). The promoter nominates where and when (day/time) they desire to hold the weigh-in and there is a two-hour timeframe for contestants to attend. Contestants are expected to present to the scales in an unimpaired, unassisted, fit and healthy state and non-attendance at the weigh-in will result in the bout being withdrawn.

There are several key aspects to the pre-contest weigh-in that all registrants should understand. These include the following.



Weigh-ins can start no more than 24-hours & no less than 2 hours, before the advertised time for doors open



The promoter nominates the weigh-in day & start time, but the Commission must approve it



There is a 2-hour timeframe to weigh-in, commencing from the approved start time



No one is permitted to touch or stand on the scales, until called to the scales by a Commission Appointee



Contestants must present to weigh-ins in a fit and healthy state



Contestants are to remove footwear (no shoes) & wear minimal clothing, to weigh-in



The Commission Appointee announces & records the weight for each contestant



Missed weight : only title bout athletes can try again if less than 500g over

The CSC has instilled a two-tier weigh-in procedure dependent on whether contestants are competing in a title bout or non-title bout. The distinction was deemed appropriate as title bouts:

- are of an elite level involving experienced contestants and trainers;
- are more likely to involve high performance athletes who have engaged a team of qualified healthcare professionals to guide a safe weight descent;
- are of a more serious nature sometimes involving international competitors; and
- often involve financial repercussions for missing weight.

Non-title bout weigh-ins

Most contestants will weigh-in under the non-title bout weigh-in process, which **does not** allow for multiple attempts (standing on the scales more than once) to be made to make weight. **The CSC has implemented a *single attempt weigh-in rule* to prevent contestants from engaging in any further dehydration or unsafe practices, often adopted when secondary attempts are allowed.** The exception to the single attempt rule is that an immediate re-weigh may be requested, solely for the purpose of removing additional clothing.

Title bout weigh-ins

Title bouts must be sanctioned by the CSC, as an official *title bout* and are requested/nominated by a promoter during the contest permit application process.

Contestants competing in a title bout are allowed two (2) attempts to make weight (stand on the scales twice) but are not permitted to lose more than 500 g of body weight to do so and must still weigh-in within the designated timeframe.

In other words, a title bout athlete who weighs-in and misses weight by more than 500g the first time is **not** provided with another opportunity to weigh-in. However, a title bout athlete who misses weight by less than or equal to 500 g can return to the scale but will only be allowed one additional attempt to make weight (re-weigh). This does not apply to a request to re-weigh for the purposes of immediately removing further clothing, which can be requested as needed. A 500 g threshold has been implemented to prevent contestants from significantly dehydrating in attempts to make the final weight.



Official Weigh-in Scales

Pre-contest weigh-ins are conducted using the CSC's official scales. The CSC's scales are tested and calibrated on a 6 monthly basis and a certificate of verification is provided by an accredited laboratory. The CSC appointees also test the accuracy of the scales, prior to the start of the weigh-ins, by using verified calibration weights.

Touching or standing on the scales, until called to do so by the CSC appointee, is not permitted. Requests to weigh-in or "test the scales" immediately prior to the commencement of the weigh-ins, or on the day of the weigh-in, are not permitted as this is viewed as an attempt to circumvent the single weigh-in rule.



Trainers, Gyms and Contestants Scales

Trainers and contestants are strongly encouraged to routinely verify the accuracy of their own personal/gym scales through licensed technicians and should maintain and calibrate their scales in accordance with manufacturer's instructions. Should a trainer or contestant wish to compare or calibrate their own/gym scales, to the CSC's scales (prior to any upcoming contest) then please contact the office to arrange for an appointment during business hours.

Missing Weight

Missing weight (not weighing-in within the nominated weight class) does not necessarily prevent a bout from occurring but will be subject to the CSCs [Weight Classes & Missed Weight Policy](#).

If a contestant misses weight by less than or equal to 5% of the upper weight class limit, then only upon mutual agreement between the opponents, their trainers and the promoter, may the bout still proceed. However, if a contestant misses weight by more than 5% of the upper weight class limit, then as a health and safety concern over the gap created between opponents, the CSC will not allow the bout to proceed.

Weight Class Examples (kg)	Upper	5% [0.05 x upper]	Missed Weight	
			Upon mutual agreement bout can proceed up to	Bout cannot proceed
Muay Thai Lightweight: 59.0 – 61.2	61.2	3.0	$61.2 + 3.0 = 64.2$ kg	>64.2 kg
Boxing Welterweight: 63.5 – 66.7	66.7	3.3	$66.7 + 3.3 = 70.0$ kg	>70.0 kg
MMA Middleweight: 79.38 – 83.91	83.91	4.19	$83.91 + 4.19 = 88.1$ kg	>88.1 kg

Regardless of whether the bout proceeds or not the CSC may place post-contest conditions on any contestant who misses weight. Conditions such as future weight class restrictions, mandatory nutritional education or attendance with a registered dietician or nutritionist may be issued by the CSC. Some sanctioning body contest rules also contain rules regarding failure to make weight such as withdrawal of title belt status and purse penalties or monetary fines. However, promoters are responsible for administering sanctioning body contest rules of this nature, not the CSC.

The CSC recognises the industry/gym/cultural pressure athletes may face by missing weight but urges athletes not to be pressured into making final/drastring RWL attempts for fear of missing weight. Athletes who have realised that they are unlikely to make weight on the day should instead learn from the experience, openly discuss the matter with their trainer and endeavor to notify the promoter prior to the weigh-in.



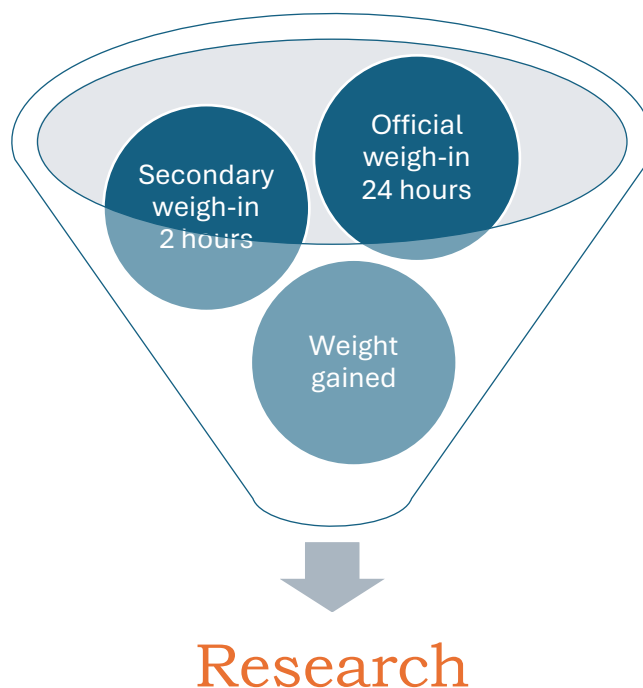
Weight Allowances/Tolerances

Some sanctioning body contest rules contain a weigh-in allowance or tolerance (i.e. 500 grams over the upper weight limit). Contestants are not deemed to have *missed weight* if weighing in within the upper weight limit + allowance/tolerance amounts **ONLY** if the nominated sanctioning contest rules contain an allowance or tolerance rule. Contestants and trainers are advised to check with the relevant contest rules or the promoter, for each event, to determine if a weight allowance/tolerance exists or not.

Secondary Weigh-ins

Under the prevailing contest rules the CSC may conduct a secondary weigh-in, at any contest, upon prior notification to the promoter and contestants. If notified of a secondary weigh-in, contestants must report to the CSC appointee to weigh-in during a designated time frame.

Secondary weigh-in data (where contestants were required to weigh-in 2 hours prior to the start of a contest but were not required to meet the weight class) has been used in the past for research purposes and helps inform decision making. In collaboration with Edith Cowan University, the CSC's secondary weigh-in data was used as the basis of a combat sports PhD (2022-2026) program. A suite of seven (7) papers have been published in science journals as part of the PhD collaboration and links to these papers can be found at Appendix 1.





REFER

Contestants are urged to compete at their walk around weight or only attempt weight loss through body **fat** reduction with exercise conditioning and nutrition strategies. Contestants proposing to reduce body weight are recommended to seek professional advice to determine an ideal weight class and to plan a safe weight descent.

Core Multidisciplinary Team

Combat sport gyms, trainers and contestants are advised to seek professional advice from sport dietitians, psychologists and sports doctors, with expertise in body mass management and weight category sports. A core multidisciplinary team (CMT) approach can play a vital function in the identification of an appropriate weight class. It provides a pragmatic approach to body mass management for athletes and a foundation for optimising athletic performance.

CORE MULTIDISCIPLINARY TEAM	
	Sports dietitians can conduct body composition assessments, identify an appropriate weight class and subsequently design nutritional/meal and weight making plans.
	Psychologists can support athletes at risk of disordered eating and assist with any psychological health problems related to making weight.
	Sports doctors can assess changes in body composition and general health/physiology as well as enable any necessary diagnostic tests.

Healthcare oversight is also important in the management of weight loss and a list of scenarios for when athletes should particularly refer to a CMT professional is provided at Appendix 2.

Seeking Nutritional Advice – Performance Nutrition HQ modules

Contestants and trainers are advised to seek nutritional advice from qualified nutrition practitioners and are urged to improve their own general sport nutrition knowledge, to assist in making or maintaining weight.

The Australian Sports Commission website provides an e-learning platform ([Performance Nutrition HQ](#)) which has been designed by sports dietitians to support athletes to optimize their health and performance outcomes through strategic use of nutrition. These modules are freely available and the CSC recommends all contestants and trainers make use of these resources.



Discussing Weight Loss with a Doctor

There are several occasions where a contestant must refer to a medical practitioner (doctor) through the CSC's registration and contest requirements. Contestants are urged to use these opportunities to discuss weight status, weight loss, weight class and body composition with their doctor.

Having an open and honest discussion with a doctor allows for an ideal and safe weight class to be identified based on individual body composition and medical needs.

Certificate of Fitness – Weight Assessment

As a condition of registration, all contestants must submit a Certificate of Fitness form (CoF), signed by a medical practitioner. This form can be completed by any medical practitioner (registered with the Australian Health Practitioner Regulation Agency) and contestants may use their own/family general practitioner. The CoF must be renewed annually and the [CoF form](#) can be downloaded from the CSC's website. In some cases, obtaining a CoF may be a contestant's first opportunity to discuss any proposed weight loss and weight class, with a medical practitioner. Consequently, a weight assessment and weight recording has been incorporated into the CoF examination and this allows the examining doctor to make an informed medical decision on the appropriateness of any proposed weight class and weight loss.

When renewing a CoF, contestants should report their previous contest weight data to the examining doctor and can refer to information recorded in their Contestant Record Book if needed.

The CoF form requires the following information be completed by a medical practitioner.

WEIGHT ASSESSMENT		
DATE OF TODAYS EXAMINATION / /	PROPOSED/NEXT COMBAT SPORT CONTEST DATE / /	NUMBER OF DAYS UNTIL PROPOSED CONTEST _____ days
CURRENT (TODAYS) WEIGHT (kg) [Weigh in minimal clothing & no footwear] _____ kg	PROPOSED/NEXT COMBAT SPORT CONTEST WEIGHT CLASS (Lower and upper limit) _____ kg (to) _____ kg	AMOUNT OF WEIGHT (kg) NEEDED TO LOSE TO MEET PROPOSED WEIGHT CLASS _____ kg
PREVIOUS COMBAT SPORT CONTEST DATE / /	PREVIOUS COMBAT SPORT CONTEST WEIGHT CLASS (Lower and upper limit) _____ kg (to) _____ kg	Based on your medical opinion is it safe for the Applicant to lose (if any) the above amount of body weight within the number of days being proposed ? ☐ NO ☐ YES
PREVIOUSLY RECORDED CERTIFICATE OF FITNESS WEIGHT (1 year prior) _____ kg	HEIGHT: _____ cm Frame: (circle) Large Medium Small	



Pre-contest medical examination – self-reporting 7-day weight

Prior to competing in a bout, contestants must undergo and pass a pre-contest medical, conducted by a CSC approved medical practitioner. Under the conditions of registration, it is a requirement for contestants to present at their **pre-contest medical in a fit and healthy state**. Consequently, pre-contest medicals are to be based on the state of the athlete at the time and day of the scheduled examination and are not to be delayed or deferred to another time/day unless approved by the CSC.

Contestants' prior weight history (CoF weight and nominated weight class) are provided to the medical practitioner for their consideration. Additionally, contestants will be asked to report what their approximate weight was one week (7 days) earlier. It is an offence under the *Combat Sports Act 1987* to provide false and misleading information.

During the pre-contest medical examination, the doctor is responsible for evaluating whether there is any evidence or sign that a contestant is significantly affected by RWL. The examining doctor is expected to record, compare and consider the athletes' weigh-in weight (on the date of the examination) to the contestants' CoF weight and self-reported 7-day weight.

The medical practitioner can declare a contestant unfit to compete, under the conditions of registration, because of dehydration or any other condition deemed detrimental. Should this occur the contestant is withdrawn from the contest and the bout is cancelled, regardless of a contestant's ability to recover or rehydrate prior to the bout.

CSC's Position on Dehydration Testing

The medical practitioner should adhere to clinical practice guidelines for identifying symptoms of dehydration. The CSC does not currently implement or regulate dehydration testing, as scientific research has shown that current testing methods, including urine specific gravity testing, lack sufficient accuracy and reliability for correct diagnosis. For further information on this research please see Appendix 3.

Unreliable testing methods create concerns with false positives, meaning there is a significant risk that hydrated contestants may falsely test as being dehydrated and then be unfairly removed from competition. The CSC is also aware that dehydration testing results can easily be manipulated or circumvented by dehydrated contestants deliberately attempting to avoid detection, in a similar fashion to anti-doping avoidance.



RETURN

Regaining or reducing body mass between contests should be tracked and managed appropriately, with large fluctuations in body mass avoided. Whilst athlete body compositions can vary greatly there are some recommended threshold body mass percentages that trainers and **elite/experienced athletes ONLY** should consider when planning weight loss and negotiating appropriate weight classes.

Junior, debut or novice athletes should NOT be engaging in weight cutting at all and should instead compete at their walk around (natural/ day to day) weight. Whilst, for some of these athletes, body fat weight loss may be part of their long-term general/overall fitness goal, making weight for a weight class below their walk around weight should not be encouraged.

Maintaining Body Weight

It is not uncommon for athletes to take time off from training or during an off season to relax and recover, leading to weight fluctuations. Injured athletes may also face difficulties maintaining weight during recovery and rehabilitation periods.

The CSC recommends elite/experienced contestants maintain their walking weight to no more than 5 - 7% above their desired contest weight. Ideally, the athletes natural (day to day walk around weight) should remain within reach of their desired weight class. Plans for returning to competition should always take into consideration any additional weight that an athlete may have accumulated and allow enough time to safely return to any desired or expected weight.

Losing Body Fat Weight and Determining Ideal Weight Class

Dietary strategies to lose excess body fat must support adequate energy availability, provide requisite nutrients, contribute towards continued growth/development and allow for a healthy relationship with food to still exist.

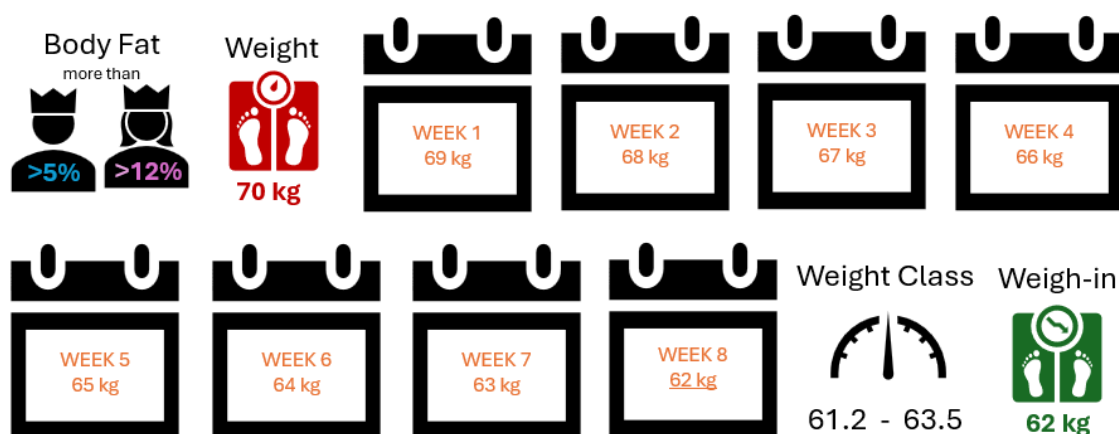




Trainers and matchmakers should only ever aim for contestants to meet the **middle** of a weight class by losing no more than approximately 1% body mass per week. No greater than 0.5 – 1 kg per week fat loss is recommended over at least an 8 – 10 week camp. This is provided athletes are already carrying excess body **fat** thresholds to draw from (more than 5% body fat for males and 12% for females). If the body composition of an athlete does not already meet these fat thresholds (i.e. very lean athletes) then no further weight loss should be proposed.

If athletes have excess body fat BUT there are not enough weeks before a contest for an athlete to reach a particular weight class, at approximately 1% per week, then that weight class should not be agreed to at the negotiation stage. Adjust the ideal weight class based on the number of weeks available.

Determine ideal weight class by planning to make the middle of a weight class (allowing for full hydration at weigh-in) with weight loss planning at **no more than 0.5 – 1 kg of body fat loss per week**



(Example weight class - CSC Muay Thai Contest Rules)

Final 7 days – Maximum Acute Weight Loss

Risk of complications increases when contestants train and compete whilst excessively dehydrated. **For elite and experienced athletes ONLY**, no more than 5% weight loss (in total) in the final 7 days should be targeted and no more than 1-2% (if any) should occur in the final days.

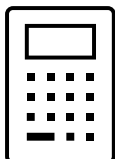
As a general guide, sweating should never be used to lose any more weight than an athlete might experience in a usual training session.

Calculating body mass % loss

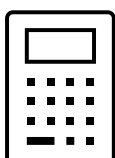
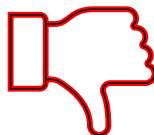
To calculate the percentage of body weight, divide the amount of weight loss or amount desired to be lost (kg) from the total body weight (kg) of the athlete and divide by 100.



For example, if an athlete weighs 70 kg and the proposed weight loss is 3 kg, the percentage (%) would be $(3/70) \times 100 = 4.29\%$ (rounded up). Therefore, a 3 kg weight loss, in the final 7 days for a 70 kg elite/experienced athlete represents less than 5%.

	Athlete's walk around weight is 70 kg		Trainer wants Athlete to weigh 67 kg		Proposed weight loss is 3 kg
	$3 \text{ (kg)} \div 70 \text{ (kg)} \times 100 =$ 4.29% (rounded up)				% is less than 5% for the final 7 days [Acceptable target]

However, the same proposed amount of weight loss (3kg) for a lighter athlete (see example below) places them above the recommended 5% threshold. **This is why weight loss values should always be calculated based on body weight percentages (%) and NOT absolute (kg) values.**

	Athlete's walk around weight is 55 kg		Trainer wants Athlete to weigh 52 kg		Proposed weight loss is 3 kg
	$3 \text{ (kg)} \div 55 \text{ (kg)} \times 100 =$ 5.45% (rounded down)				% is more than 5% for the final 7 days [Unacceptable target]

Trainers Legal Responsibilities

Trainers play a vital role in the coaching and training of athletes (including weight class selection) and can be highly influential in encouraging or dissuading the practices adopted for making weight. Trainers and gym owners who do not adopt safe and sound practices place themselves at a greater legal risk of providing negligent advice. When advising on body mass management and selecting weight classes for their athletes, trainers should adopt expected standards of care, such as the following.



☒	Know the walk around weight of an athlete before negotiating a weight class with a matchmaker or other trainer/opposition.
☒	Implement strategies and body composition assessment for determining each athletes individual ability to safely compete at a given weight class.
☒	Suggest weight targets throughout the season/year and encourage athletes to maintain body mass close to desired contest weight.
☒	Conduct periodic reviews to consider whether athletes are physically and emotionally suited to competing in their nominated weight category.
☒	Help athletes make better dietary choices (including hydration) and improve awareness of harmful weight making methods.
☒	Encourage athletes to compete at walk around weight OR use diet and exercise to slowly reduce their body fat mass for making weight.
☒	Recognise when an athlete may need to go up a weight class (for example muscle mass, weight gain after time off, missed weight or aging athletes).
☒	Play a proactive role in supporting the long-term health, safety and performance of the athlete.
☒	Create an environment and gym culture that encourages athletes to voice, with confidentiality, their concerns regarding unhealthy or worrying practices around weight management.

Final Message

In the true spirit of weight classed combat sports and in the interest of the long-term health of all contestants the CSC implores the industry to change the culture and discontinue encouraging, embellishing and accepting unsafe RWL strategies.



APPENDIX 1 – PhD published papers (ECU and CSC collaboration)

Sex Differences in Hydration Biomarkers and Test-Retest Reliability Following Passive Dehydration	Doherty, C. S., Fortington, L. V., & Barley, O. R. (2024). International Journal of Sport Nutrition and Exercise Metabolism, 34(2), 88-100.	"Generally, biomarkers showed lower test-retest reliability in males compared with females but, overall, were classified as poor-moderate in both sexes."
Blood, Sweat, and Tears: Implications for Hydration Testing in Combat Sports - Investigating Body Mass Loss and Biomarker Changes	Doherty, C. S., Fortington, L. V., & Barley, O. R. (2024). Scandinavian Journal of Medicine & Science in Sports, 34(8), e14701	"This study highlights the challenges associated with accurately assessing hydration status in a laboratory setting."
Prevalence of disordered eating and its relationship with rapid weight loss among male and female combat sports competitors: A prospective study	Doherty, C. S., Fortington, L. V., & Barley, O. R. (2024). Journal of Science and Medicine in Sport, 27(11), 745-752.	"These findings underscore the substantial challenges that the post-competition period poses to athletes' food and body relationships, irrespective of RWL magnitude."
Incidence of Health Problems in Australian Mixed Martial Arts and Muay Thai Competitors: A 14-Month Study of 26 Combat Sports Events.	Doherty, C. S., Fortington, L. V., & Barley, O. R. (2025). Sports Medicine Open, 11:60	"These findings provide valuable insights into the frequency and consequences of post-competition HPs [health problems]."
Rapid Weight Changes and Competitive Outcomes in Muay Thai and Mixed Martial Arts: A 14-Month Study of 24 Combat Sports Events	Doherty, C. S., Fortington, L. V., & Barley, O. R. (2024). Sports, 12(10), 280.	"Adhering to scientifically supported methodologies can mitigate health risks while enhancing the likelihood that athletes are adequately fuelled for competition."
Is there a relationship between rapid weight changes and self-reported injury in combat sports athletes? A 14-month study of 24 combat sport events	Doherty, C. S., Barley, O. R., & Fortington, L. V. (2025). Journal of Science and Medicine in Sport, 28(6), 465-474.	"Male RWL – 24 h before weigh-ins is associated with reporting an injury at 7 days post-competition. Therefore, athletes and coaches should carefully consider and aim to limit pre-competition rapid weight loss to minimise the likelihood of injury."
Discrepancies in combat sports injury reporting: A comparison of athlete self-reports and ringside physician data	Doherty, C. S., Barley, O. R., & Fortington, L. V. (2025). Journal of Science and Medicine in Sport	"This study highlights substantial discrepancies between athlete self-reported injury-related HPs and physician-documented medical notes following combat sport competitions."



APPENDIX 2 – Scenarios requiring CMT expertise

Professional	Scenarios which require Professional expertise
Sports Dietitian	Any athlete who needs to reduce their body mass to make weight, but particularly: > An athlete who is known to have difficulties with making weight or has expressed interest to qualify for a lower weight category > An athlete, identified by another health professional, whose weight making practices are affecting their performance, physical or mental health, or lifestyle > A junior athlete (<18y) who is in the exceptional circumstances where weight making might be considered; e.g. an athlete who has qualified for high level open competition, but due to subsequent growth is no longer able to make their competitive weight category without engaging in some acute weight loss strategies for that specific competition. Thereafter, a review of the most appropriate weight class should be undertaken
Psychologist	Any athlete who is identified as having mental or psychological health problems related to weight making or their general involvement in a weight category sport, including > An athlete who is not making progress despite a structured plan for weight management > An athlete who demonstrates concerning eating behaviours > An athlete who demonstrates body image concerns > An athlete who experiences large weight gains between competitions > An athlete who expresses interest in competing in a lower weight category where this has been deemed a 'borderline' decision following assessment of body composition and discussions with a sports dietitian In addition: > A junior athlete (<18y) who is in the exceptional circumstances where weight making might be considered
Sports Doctor	Any athlete who is identified as having medical or health issues related to weight making or their general involvement in a weight category sport, including: > A youth athlete (<18y) who is in the exceptional circumstances where weight making might be considered > An athlete who expresses interest in competing in a lower weight category where this has been deemed a "borderline" decision following assessment of body composition and discussions with a sports dietitian > An athlete who is identified by a sports dietitian as needing diagnosis (blood testing) of suspected sub-optimal nutrient status > Any athlete who is identified as having mental or psychological health problems related to weight making or their general involvement in a weight category sport, including – An athlete who has reoccurring injury and/or illness – An athlete who has suffered complications during the weight making process such as episodes of dizziness/fainting, stomach pains or nausea, full body cramps, changes in blood pressure, cessation of sweat response or altered cognition

(Source: AIS - Making weight in weight category sports – Best practice guidelines for sporting organisations – Page 3, 2022)



APPENDIX 3 – Hydration testing infographic



Government of **Western Australia**
Combat Sports Commission



Why Hydration Testing Doesn't Work for Monitoring Rapid Weight Loss in Combat Sports

Biomarkers are **inaccurate** and **unreliable**



Hydration testing is often proposed as a way to monitor athletes' weight loss and protect their health. But if the tests **don't reflect real fluid loss**, or **give different results each time**, they become misleading and unusable.

Why Do **Accuracy** and **Reliability** Matter in Hydration Testing?

Accuracy means: Does the test reflect the true amount of fluid or weight lost?

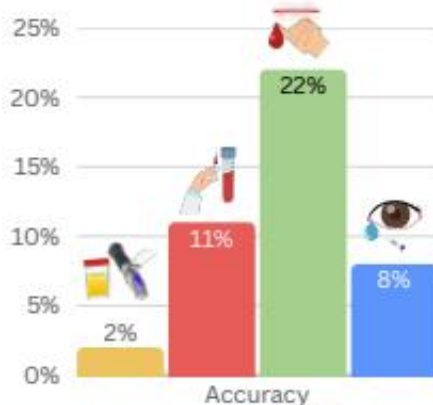
Reliability means: Will the result be the same each time we test?

⚠ If hydration tests are inaccurate or inconsistent, they cannot be used to monitor, assess, or regulate rapid weight loss practices.



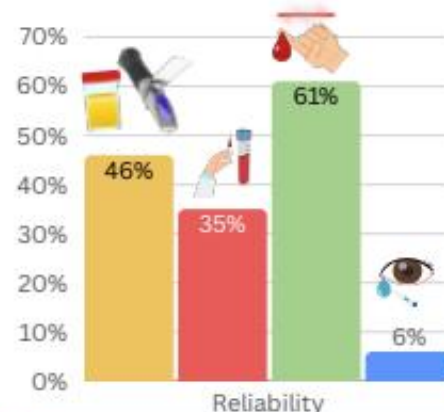
Accuracy:

How well do hydration markers reflect actual weight loss?



Reliability:

Can hydration markers give the same result across trials?



Urine specific gravity



Serum Osmolality



Fingerprick blood



Tear Osmolality

✓ Fingerprick blood was the best, but still only explained 22% of the weight lost.

✗ Other markers like urine and tear fluid explained even less.

🔴 **Conclusion:** Biomarkers do not accurately reflect rapid weight loss.

✓ Fingerprick blood was again the best, but agreement was 61% across two identical trials.

✗ Other methods were even less consistent.

🔴 **Conclusion:** Biomarkers are not reliable enough to track weight loss over time.

⚠ Hydration testing should not be used to assess or manage rapid weight loss before competition.

🔴 Even though it can appear objective, hydration testing is not accurate or reliable enough to be useful in this context.



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combat_sports_research



Doherty CS, Fortington LV, Barley OR. Blood, Sweat, and Tears: Implications for Hydration Testing in Combat Sports-Investigating Body Mass Loss and Biomarker Changes. Scand J Med Sci Sports. 2024, 34(8):e14701. doi: 10.1111/sms.14701.

