MAKING WEIGHT DECISION TREE

Conduct morning body mass (BM) ± body composition assessment in accordance with best practice guidelines, with athlete guided on presentation i.e euhydrated, overnight fasted & rested, with voided bladder & bowel

Is athlete heavier than weight division?

YES
Is weigh-in >7 days in the future?

NO
Maintain current BM with focus on pre-training fuelling & post-training recovery nutrition strategies

YES
Does the athlete have excess fat mass (i.e. body fat >5% males, >12% females) & sufficient time to focus on fat loss? Aim for no more than 1% body mass loss per week

NO
Is BM >6-7% above weight division OR >5% above weight division with <4hr recovery between weigh-in competition?

YES
Consult sports dietitian & implement fat loss dietary strategies, while also supporting fuelling & recovery goals[1]

NO
Acute weight loss is required during week prior to weigh-in

NO
Is BM >5% above weight division or >3% above weight division with <4hr recovery between weigh-in & competition

YES
Do not compete, devise BM management plan for next competition. If body fat <5% males, 12% females consider moving up a weight division. If body fat >5% males, >12% females consult sports dietitian & implement fat loss dietary strategies – aim for 1% BM loss per week

YES
Utilise low carbohydrate diet. Begin 3-7 days prior to weigh-in[2]

NO
Dietary carbohydrate intake can be manipulated to support fuelling & recovery goals

48-96hr pre weigh-in

Reduce consumption of bulking foods (<10g fibre per day) until weigh-in.[3]

Focus on very low weight foods 24hrs pre weigh-in.

48-72hr pre weigh-in

Reduce dietary sodium intake (<500mg per day) until weigh-in).

24-36hr pre weigh-in

Moderate fluid intake until weigh-in. Utilise scheduled training sessions to promote further sweat losses (can utilise extra clothing layers, sweat suits etc.)

0-24hr pre weigh-in

Passive dehydration via hot bath/sauna should never exceed 1-2% BM & only be considered if direct athlete supervision by CMT[4] can be assured. Once weight is achieved begin cooling strategies.

Where time permits, all acute weight loss strategies should initially be trialled in advance of competition in isolation to assess weight loss potential, plus perceived impact on performance & health. Any subsequent combination of strategies should also be trialled in advance of competition, as should targeted strategies post-weigh-in.

1. A small amount of acute weight loss may still be required to achieve specified weight division limits, depending on the time available before weigh-in, presenting body fat & other nuances of the athlete & specific sport.
2. Duration of carbohydrate restriction required to maximally reduce glycogen mass will vary depending on current glycogen status & training volume/intensity in the 7 days prior to weigh-in. For athletes engaged in greater training loads, fewer days of carbohydrate restriction will be required to deplete glycogen stores.
3. Duration of fibre restriction required to maximally reduce gut contents will vary depending on individual whole gut transition time – athletes should note individual responses to low fibre intakes.
4. Core Multidisciplinary Team.

Modified from Reale et al. Acute weight loss strategies for combat sports and applications to Olympic success. Int J Sports Physiol Perf. 12:142-51, 2017.