

FACT SHEET

FOOD FOR YOUR SPORT – BOXING

ABOUT BOXING

Boxing is a striking combat sport that is contested in both amateur and professional competitions with the Olympic Games the pinnacle of amateur boxing. Bouts consist of 3 x 3 minute rounds for men and 4 x 2 minute rounds for women with 1-minute rest between rounds. Successive bouts in a tournament are fought over a number of days with one bout per day. The format in professional boxing varies widely and may include up to 10 or more rounds in a bout. Boxing bouts are characterized by high paced, high intensity action requiring both aerobic and anaerobic fitness as well as considerable skill.

A key feature of boxing competition is the grouping of athletes into weight divisions in an attempt to create an even playing field in which one competitor does not have a significant size or strength advantage over another (see table below for amateur boxing weight division details).

To ensure athletes have “made weight”, official weigh-ins are held prior to competition. Generally weigh-in occurs the morning of competition in amateur boxing or the day before competition (in professional boxing). It is common for boxers to attempt to lose weight in order to compete in a lighter weight division against smaller opponents.

In addition to long term weight loss/body fat reduction, some athletes engage in extreme rapid weight loss practices in the hours and days prior to weigh-in that can negatively affect performance and compromise health. Extreme dehydration, vomiting, starvation, laxative and diuretic use all significantly decrease performance and can be dangerous to health so are strongly discouraged.

Male weight divisions	Female weight divisions
46-49 kg	45-48 kg*
49-52 kg	48-51 kg*
52-56 kg	51-54 kg*
56-60 kg	54-57 kg*
60-64 kg	57-60 kg*
64-69 kg	60-64 kg*
69-75 kg	64-69 kg*
75-81 kg	69-75 kg*
81-91 kg	75-81 kg*
>91 kg	>81 kg*

* Weight divisions not contested at Olympic games

TRAINING DIET

In order to get the most from training sessions, boxers need to ensure they are properly fueled and hydrated. Ensuring intake of a wide variety fruits and vegetables will provide much of the vitamins and minerals required to prevent illness and promote good health and recovery. Consuming adequate carbohydrate containing foods (breads, grains, cereals etc.) particularly before and after training sessions will help fuel and promote recovery. Protein intake (meat, meat alternatives, dairy etc.) should be spread over the day in several moderate serves as well as after training, to best facilitate recovery and growth (rather than larger serves at one or two main meals).

To identify a suitable weight division, a long-term approach to weight management in consultation with an Accredited Sports Dietitian is important to maximise performance. Achieving a fully hydrated body weight of no more than 2-3% of their competitive weight division at least 1 week out from competition is a good goal for most athletes and will prevent the need for extreme weight loss practices.

Care needs to be taken to prevent excessive body fat gain between competitions while adequately fueling training sessions, achieving recovery post training and promoting a healthy body image and attitude towards food intake and weight management.

FLUID NEEDS

Many athletes who are conscious of their weight will not adequately replace sweat losses following training as this will show up as increased body weight on the scales. However, dehydration can lead to decreased power output, reduced aerobic/anaerobic capacity, impaired reaction time, and affect cognitive performance. Furthermore, it can worsen the consequences of concussion or head injury, particularly relevant to boxing.

Ensuring athletes are properly hydrated day-to-day at training is critical in promoting performance and good health. Athletes should drink fluids with all meals and snacks and drink during training. Sports drinks are generally not required at training sessions, however can be useful at competitions.

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EATING BEFORE COMPETITION

MAKING WEIGHT

It is important for athletes and coaches to understand short term and long-term weight loss. Reducing weight in the long term requires body fat loss and can be achieved through a reduction in total energy intake. During this time it is important to consume a diet that satisfies hunger, appropriately reduces energy to lose body fat, yet still fuels training and promotes recovery. Therefore an athlete needs to be strategic with their food intake; especially before and after training to help fuel for and recover from key sessions. The reduction in energy intake should come from limiting 'extra foods' (chocolate, cakes, chips, junk food etc.) and, reducing carbohydrate intake on rest days and away from key sessions.

Some athletes may fast, skip meals or reduce the volume/weight of food consumed in the day(s) before weigh-in to aid weight loss. While effective, this strategy reduces the intake of needed energy and nutrients. Instead, strategies such as a reducing salt intake, small reductions in fluid intake and following a low residue diet can be more effective working with an Accredited Sports Dietitian is important for making weight safely.

AFTER WEIGH-IN

In amateur boxing tournaments, athletes will have at least 3 hours following weigh-in before they compete. This time should be used to re-fuel for competition and recover from any fluid loss used to make weight. Consuming 150% of fluid losses with sodium containing fluids in small frequent sips will achieve the best results. A carbohydrate rich meal will provide an athlete fuel for their upcoming bout.

EATING AND DRINKING DURING COMPETITION

It is common that athletes may feel nervous or find it hard to eat before a bout. Choosing light, easy to digest, low fat, low fibre foods or liquid foods (e.g. meal replacement drinks, sports bars, simple sandwiches, dry biscuits etc.) close to competition can be a suitable strategy to provide energy while minimising gut discomfort. Following their bout, if a boxer needs to make weight again the following day, they should check their weight and if further weight

loss is required then they should adjust total volume/weight of food and fluid consumed over the rest of the day.

Preference should be given to low fibre/low weight foods that provide carbohydrate and protein for energy and recovery while avoiding excessively large/heavy meals and large fluid intakes in order to make weight again.

RECOVERY

Recovery after training and competition can be enhanced by eating a meal or snack containing carbohydrate to replace muscle glycogen stores; protein to speed up muscle repair and fluid to replace sweat losses. Ideally a recovery meal or snack should be consumed within 30-60 minutes of finishing training or competition. Sometimes it is not possible to have a main meal straight after training/competition. In these situations consuming a snack immediately after training to kick start recovery and then finishing the recovery process at the next main meal is recommended. Suitable recovery snacks that contain carbohydrates, protein and fluid include:

- Low fat fruit smoothie
- Cereal bar + tetra pack low fat flavoured milk
- Yoghurt + chopped fruit + bottle of water
- Ham and cheese sandwich + bottle of sports drink

OTHER NUTRITIONAL TIPS

- Younger athletes should be allowed to move up weight divisions as they age/grow and should focus on training, skill development and eating nutritious foods, not weight loss
- More experienced and senior athletes should develop personalised weight loss and recovery plans to optimise performance and select competitive weight divisions in conjunction with an Accredited Sports Dietitian
- Weight making and recovery strategies should be trialed and refined before important competitions
- Supplements need to be used in conjunction with advice from an Accredited Sports Dietitian. Some supplements have been shown to be effective to enhance performance e.g. protein powders, creatine and sports drinks, whereas others may be used by athletes due to perceived benefit (they feel better) as opposed to proven benefit.