

Providing meals for athletic groups

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26.1 INTRODUCTION

Catering or providing advice to caterers about feeding athletes is a very exciting and challenging task for a dietitian. A dietitian involved with food service or menu planning is faced with the difficulties of providing for a wide variety of tastes, expectations, and different family/cultural backgrounds. When given the task of menu planning for athletes, a dietitian has the opportunity not only to determine the food that will be available, but also to influence eating behaviour directly. In a dining hall that caters for sportspeople, such as the Australian Institute of Sport (AIS) dining hall in Canberra, the presence of a dietitian working in food service can influence food supply and hence food choices. Most athletes reported consuming an increased carbohydrate (CHO) intake and a greater variety of foods when living at the AIS compared with their usual intakes at home (Cummings, unpublished data 1999). Similar findings were reported in a United States survey, which showed that residential athletes had a higher CHO intake and more optimal training diet than controls living at home. Unfortunately, most sporting venues and catering establishments do not cater adequately for the types of diets recommended for athletes, and the food provided frequently contradicts sports nutrition principles.

This chapter discusses the main considerations in menu planning for athletic groups. Section 26.4 provides tips for improving the food service environment in large-scale residential catering and also for athletes who are self-catering while away from home.

26.2 CATERING FOR DIFFERENT ATHLETES

There are many nutritional goals that apply to most athletes, however, large variations in nutrient and energy requirements occur between males and females at different ages, from different backgrounds and between different sports.

26.2.1 *In different sports*

When menu planning for athletes with high energy requirements, such as heavyweight rowers, provision of a much larger meal size than that provided for lightweight rowers is needed. With the trend towards small serve sizes in restaurants, large-energy consumers are at a disadvantage. In contrast, people catering for athletes often serve large meals to all athletes, irrespective of their body mass (BM) or sport. Public perceptions about feeding athletes are often distorted, especially in relation to elite athletes. Despite the apparent intensity and duration of physical activity in some team sports, energy requirements, and hence food intakes, are not that much greater than those in untrained people (see Chapter 6).

In contrast, large meals are quite daunting for many athletes who are watching their BM or skinfolds. For these athletes, foods need to be nutrient-dense so that adequate nutrient intakes can be met from smaller amounts of food. Providing written guidelines to caterers about serve sizes and meal sizes for different athletes helps address these misconceptions. A buffet-style service is best suited to athletes with a wide variety of energy requirements.

26.2.2 *At different ages*

Many young athletes travel both nationally and internationally and are faced with the challenge of eating unfamiliar foods. This situation creates problems for some athletes. Observations at the AIS indicate that adolescent athletes living away from home are quite conservative in their food choices. When menu planning for younger athletes, care should be taken with spicy foods and dishes with unusual flavours. In a large-scale catering establishment, ensure there are sufficient basic or plain menu options available. On a smaller scale, when it is not feasible to serve a wide array of options, meat dishes and their accompanying sauces can be served separately. This strategy caters for the needs of fussy eaters. Adolescent athletes are often reticent to sample unfamiliar foods, especially when away from home.

26.2.3 *Cultural background*

The home and cultural environment has a major influence on eating habits. Traditional Australian eating habits, with the emphasis on meat as the main part of the meal, do not encourage high CHO consumption. This pattern is difficult to change if usually followed at home. Athletes who expect to receive meals that resemble their home cooked meals are often disappointed. In response to this situation, athletes, especially adolescents, will usually only consume familiar foods. Although it is difficult, if not impossible, for a dietitian to present a menu plan that satisfies every individual in

a large group setting, it is important to present enough choices to accommodate different types of diets and cultural differences (e.g. vegetarian and non-red-meat eaters). This is paramount with visiting athletes from overseas countries (see Section 26.3.6)

26.2.4 *Gender*

Food choices in athletes are often gender specific. Apart from the obvious requirements of larger serve sizes in males, mixed gender groups have different expectations of the type of meal served. From observations of working with teams, it is evident that male athletes prefer a cooked breakfast and hot meals at lunchtime. Female athletes, in contrast, are satisfied with a breakfast of cereal and/or toast, and sandwiches at lunchtime. These differences were clearly demonstrated in a survey of AIS residential athletes. Most female team athletes (mainly adolescents) stated that they consumed a sandwich for lunch, in contrast to the majority of adolescent male athletes (soccer and basketball) who consumed hot food (Cummings, unpublished data 1999). Adolescent girls appear to be more adventurous in trying new foods than boys of the same age.

To cater for these apparent differences in food choice between males and females, hot items can easily be incorporated into the breakfast menu by using pre-prepared foods (e.g. tinned spaghetti and baked beans). For quick hot lunches, the use of soups, toasted sandwiches or focaccia, or low-fat burgers in crusty rolls will satisfy food preferences for most athletes. The difference in food choices between sexes may be a reflection of the effect of different body perceptions reported between male and female adolescents (see Chapter 18).

26.3 THE MENU

26.3.1 *The menu cycle*

The length of the menu cycle is dependent on the time spent in the dining facilities. If athletes need to be fed for less than a month (e.g. training camps, competition venues), the menu cycle can run on a weekly basis. Athletes staying for such a short term do not have the time to become bored with the menu or even to recognise that there is a menu cycle. Alternatively, to avoid serving the same dishes on the same day of the week, the menu plan can be rotated. When menu planning for athletes living in permanent residences, the menu cycle can be longer. At the AIS, where the athletes are usually in year-long residence, the menu rotation is four weeks, with more popular items served more frequently.

26.3.2 *Variety and nutritional balance*

When designing a menu for large groups of athletes from different sports, a variety of dishes is important. This approach addresses variations in nutrient requirements between individuals and allows a wide range of personal choice. At the AIS, which caters for approximately 250 permanent athletes as well as visiting athletes in training

camps, the menu options include four choices of hot meals at dinner (see Appendix 26, Table 26.5 for an example of a weekly menu plan). The meal choices include a high-CHO dish, plain meat, wet dish (e.g. curry or casserole) and a vegetarian dish, as well as a wide selection of salads, fresh fruit and assorted breads. When menu planning for a small group of athletes, it is acceptable to offer only one evening meal choice. Extra CHO-rich foods should be available at each meal time to accompany these dishes. A good option is a selection of novelty breads, such as focaccia, crusty loafs and Italian-style loafs. Individuals with special needs in a small group, including vegetarians, are usually catered for individually. A wide menu choice and variety helps prevent athletes from becoming bored with the food. Suggestions to increase food diversity and to provide well-presented and visually inviting meals include the following:

- Use different meats (for example, if roast meat is served each week in a menu cycle, rotate pork, beef, lamb, turkey, chicken and veal).
- Use a variety of cooking methods (grilled, braised meat, casseroles, stir-fries).
- Try using high-protein plant foods including legumes (incorporated into vegetarian dishes or used to add CHO to meat dishes). Legumes add bulk and therefore have a good satiety value as well as being relatively inexpensive.
- Use a variety of different coloured ingredients in each meal (this improves aesthetic appeal and encourages consumption).
- Enhance flavours of meals (by incorporating flavours from different regions of the world—spicy dishes must be balanced against some plain options).
- Offer a variety of textures (by incorporating dishes with differing ‘mouth feel’). For example, if the menu plan has mashed potatoes, the other vegetables can be served ‘al dente’.
- Serve a wet dish (e.g. casserole or stew) as well as plain grilled dishes.

In addition to these suggestions, the menu and most recipes should be low in fat and high in CHO to meet the dietary goals of athletes. If modifying recipes from regular cookbooks, an important strategy is to reduce the total amount of fat or oil, either by reducing the total amount of fat added to the recipe or using reduced-fat products, such as low-fat cheese and milk (see Table 26.1, Section 26.6). Alternatively, use one of the many low-fat cookbooks that are widely available on the market. If menu planning for large groups of athletes, a recommended cook book is *Cooking for Champions* (Modulon & Burke 1997).

Although the nutritional message to increase the intake of CHO for athletes is widely used, athletes (and most people) have difficulty translating these messages into actual food choice. Traditionally, food choices in Western diets do not meet the higher CHO diet of athletes in hard training. Some suggested strategies to promote an increase in CHO intake are:

- In a self-serve situation, offer the CHO-rich foods first (e.g. rice, potatoes, pasta and starchy vegetables) in the line up, and offer the meat dishes at the end. This

sequence encourages larger serves of CHO, and smaller serves of protein, hence improving the balance.

- Ensure a wide variety of breads and rolls are served at each mealtime and position in strategic places. For example, put baskets of crusty bread rolls next to soup, and have a wide selection of bakery products including muffins, crumpets, pita bread and bagels.
- Maximise CHO content of meals by adding legumes to casseroles and soups, thick layers of pasta to lasagne, noodles to salads and soups, and use thick pizza bases.
- Provide a supply of low-fat snacks including sandwiches, fruits, yoghurts, cereals and cereal bars for in-between meals.
- Encourage athletes to take their own supply of ready-to-eat foods to training.

26.3.3 *Cost*

Food cost is usually a primary concern when designing a menu for a group of athletes. Some cost-cutting measures include:

- Buy food in bulk (try specific wholesale stores).
- Re-use foods leftover from a meal—provided food safety and hygiene have been addressed (see Section 26.3.7).
- Adapt the menu plan to use reduced price items.
- Cook meals in bulk and 're-invent' the dish at a later stage—e.g. Bolognese sauce served with pasta can be turned into a spicy bean-based Mexican dish and served with tortillas, jacket potatoes or rice.
- Bulk-up casseroles and minced meat dishes using cheaper ingredients including legumes and grains.
- Plan the menu on seasonal availability of fruits and vegetables.
- Consider self-catering for a group as an option to eating out.

26.3.4 *Seasonal*

Food preferences vary with season, particularly in countries where there are extremes in temperature. During winter, athletes prefer warming meals including casseroles and soups. Thick hearty soups are an excellent lunchtime option. During summer, athletes prefer lighter dishes including quiches, stir-fries, cold meats and salads. To boost CHO intake to salad dishes, add rice, couscous, bourghul, pasta, potatoes, and corn.

26.3.5 *Timing of meals*

When organising catering for groups of athletes, consider the timing of training and the competition event. In a residential establishment, meal times are usually set within a relatively short time frame. However, there should be enough flexibility to arrange pre- and post-match meals outside of these set times.

When menu planning for athletes who are self-catering, be aware of major competition days and the timing of such events. Organise the menu plan to incorporate high-CHO meals, to be available on competition days, which are quick and easy to prepare rather than relying on eating out. The ease of meal preparation is particularly important if tired, hungry athletes are required to cook for themselves. Suitable snacks need to be provided for the athletes immediately after competition.

If the training or competition schedule is very tight, a post-match meal at a restaurant is a convenient alternative. Phone ahead and notify the restaurant of the group's arrival so that meals are available soon after the team's arrival.

26.3.6 Cultural and other special dietary requirements

When menu planning, consider the cultural background of the athletic group. Religious beliefs (Kosher, Halal), medical problems (intolerances, allergies), personal preferences (e.g. vegetarian) or country of origin of the athlete are important considerations. Athletes accustomed to Western diets encounter difficulties when competing in many Asian countries where bread and breakfast cereals are often unavailable. Similarly, difficulties arise when Asians and Africans, for example, experience Western food. If catering on a large scale, it is possible to make special dishes available for a particular group of athletes. At the AIS, because of the popularity of vegetarian-style dishes, there is always a vegetarian option. When designing a menu plan to incorporate vegetarian dishes, it is important to base some of the dishes on meat alternatives and include, for example, pulses, tofu, or tinned nut meat products to cater for true vegetarian athletes. Popular vegetarian choices among athletes are spicy bean burritos, chilli con carne, and vegetable and lentil lasagne. It is easy to disguise the often unpopular lentil in these dishes as well as soups, stews and casseroles.

Athletes who are unadventurous or inflexible in their eating habits can resort to poor food choices in an environment with unfamiliar foods. If this situation continues for a long time, performance and possibly nutritional status is affected. This behaviour has caused many problems when athletes travel both nationally and internationally. For example, an overseas athlete presented to the medical staff with severe stomach pains which was later diagnosed as constipation due to the reliance on consumption of one familiar food: eggs!

26.3.7 Food safety

In a large-scale catering facility, all kitchen staff should be trained in food safety and hygiene practices. Although local governments in Australia have encouraged food service staff to be formally trained in food safety and hygiene, it is not yet compulsory. A dietitian involved with menu planning has an excellent opportunity to provide such training, and offer encouragement and adherence to safe food hygiene practices. Food safety issues, including food handling, storage of food, re-use of leftovers, and personal hygiene associated with food, are also important issues for

athletes who are self-catering. This is particularly important for athletes who travel overseas where the risk of food-borne illness is high.

26.3.8 *Food service staff and facilities*

An important component of menu planning is to determine whether catering staff has any past experience in feeding athletes. Feeding athletes involves more than simply serving a meal of pasta, as is often encountered. Providing written guidelines to caterers about meal ideas and recommended serve sizes consumed by athletes helps overcome these problems. Suggestions for caterers are: serving pasta, rice, potatoes and vegetables at the start of the service point; serving dishes with accompanying sauces separately; ensuring adequate fluid is available (i.e. carafes or water jugs placed on tables). Numerous recipe books are available for catering for large groups of people (e.g. Modulon & Burke 1997, *Cooking for Champions*). Alternatively, a dietitian can have a positive impact by conducting education sessions for food service staff. The content of these sessions conducted at the AIS is found in Section 26.4.5.

26.4 FEEDING ATHLETES IN DIFFERENT SITUATIONS

26.4.1 *Residential catering for athletic groups*

Although foods selected from a menu with a wide selection of choice (i.e. à la carte) may be the first preference for most people, it is not feasible or economical when serving large groups of athletes. A buffet-style self-service is more suitable as it:

- provides readily available food for hungry athletes;
- is more cost-effective because of minimal staffing requirements, bulk cooking and low wastage; and
- allows for flexibility in food choice.

Athletes living in residence where buffet-style food is served often complain about boredom and lack of menu variety. These complaints are more often voiced by those athletes who:

- consume food from every dish on the buffet;
- watch what other athletes eat;
- use the dining hall as a social meeting point and linger over meals; and
- eat more than necessary (have two or more meals).

26.4.2 *Overcoming the problems—an operation in practice*

The AIS dining hall was opened in 1987 for resident athletes. In 1995, the catering was tendered to a private contractor with the proviso that a food service dietitian be employed as an adviser and overseer of the menu plan. The mission statement in the dining hall is 'Feeding athletes for today, educating them for tomorrow'. The major

tasks of the food service dietitian are to train athletes to choose appropriate foods to meet their nutritional needs, to develop new recipes, to design the menu plan, to check on adherence to recipes, and to train food service staff. Because of the wide range of differences in sports, ages, training schedules, nutritional requirements and personal preferences, the dining hall serves a variety of menu options.

26.4.3 Recipe modification

The food service dietitian can assist chefs in recipe modification by adapting traditional higher fat recipes to low- or reduced-fat without compromising flavour, texture or the structure of the finished product. The AIS dining hall prides itself on serving traditional 'popular' menu items such as beef lasagne, chicken schnitzel, and Thai-style curries without the usual high-fat ingredients. For direction on how to modify these recipes, refer to Modulon and Burke (1997).

26.4.4 Education of athletes

Dietitians working at the AIS conduct regular education sessions with residential and visiting athletes. The first session for residential athletes is focussed on 'survival in the dining hall', which covers the problems and pitfalls of eating from a buffet-style menu.

All meals have an accompanying nutritional card highlighting ingredients in the dish, and a nutritional analysis per serve. Modulon and Burke (1997) designed a colour-coded system for all meals served in the dining hall, to differentiate between dishes that are high in CHO (excellent choice) and have moderate CHO and fat content (good choice). To emphasise the importance of CHO foods in the athletes' daily diets, dishes that have little or no CHO content (e.g. meat dishes) are highlighted by a blue dot denoting extra CHO needs to be added to the dish. As well as the nutritional cards above the meals, nutritional information about other foods is situated around the dining hall. Figure 26.1 provides an example of a nutrition card.

As an additional educational strategy, groups of athletes are given the opportunity to plan a menu for a specific theme night. With guidance from the team's dietitian, the usual menu planning steps are worked through to ensure a nutritionally balanced menu, with a few of their favourite choices as treats. Examples of theme nights that have been held so far have included AFL (Australian Football League) night, Mexican night, Hawaiian night, an Indian feast and a Turkish night, including entertainment from a belly-dancer.

26.4.5 Education of catering staff

Chefs and food service staff are not usually trained to cater for the nutrient requirements of people with specialised nutrient requirements (e.g. hospital patients, people in nursing homes). This task is the role of the clinical dietitian. In addition, clinical dietitians are trained as educators, counsellors and consultants in nutrition education and food service. Therefore, it is a good investment of time and effort for

Singapore Noodles

A dish of lean pork, black beans, vegetables, garlic, chilli and coriander, tossed with Hokkien noodles.

**This dish is low in fat and high in CHO.
Serve with rice for an extra CHO boost.**

Excellent choice

1 serve: 1 heaped cup

Energy	1 000 kJ (238 cal)
CHO	30 g (50% of energy)
Fat	4 g (14% of energy)
Protein	21 g
Iron	2.5 mg

Figure 26.1 Example of a nutrition card used at the AIS dining hall

the dietitian to conduct education sessions for food service staff. Because of the unique situation of catering for large numbers of athletes in a live-in environment at the AIS, chefs and food service staff gain additional expertise in the provision of an optimal diet for athletes. Educating food staff at the AIS about healthy food choices and the links between diet, lifestyle and diseases has also encouraged a greater personal interest in healthy eating.

Catering staff are also made aware of the problems and complaints of athletes of a buffet service and present food in a variety of ways to address these problems. For example, serving food in large aluminium dishes in a bain-marie is not always attractive to the eye or palate. Dishes look attractive at the start of service, then deteriorate into a 'mush' once athletes have helped themselves. Pre-portioning dishes can overcome part of this problem, as athletes are encouraged to help themselves to a portion. Section 26.6 provides an outline of education sessions for food service staff.

26.4.6 *Self-catering while away from home*

The advantages of self-catering while away from home are greater flexibility with meal times, provision of familiar foods, and cost effectiveness. It is beneficial to

encourage athletes in a team to menu plan and cook for themselves in groups, rather than to rely solely on the coach, team manager, parents or administration staff. Most accompanying personnel on trips away are unpaid volunteers. Some of the large teams provide financial support for these support staff and may also be accompanied by a dietitian. Dietitians who travel with athletes need to be multi-skilled and offer services other than just menu planning, such as shopping and cooking, massage and management of the team. Prior to departure, a dietitian should determine the level of cooking skills of the athletes. Cooking classes with the team just prior to departure are invaluable for instilling confidence in young people with poor cooking skills and for organising a menu plan for the trip.

One of the disadvantages of self-catering away from home is that cooking facilities in self-contained accommodation usually provide equipment for only two to four people. We encourage a communal approach in cooking where one group of four to five athletes takes responsibility for the main meal for the whole group; another group takes responsibility for salad or vegetables and another group for dessert. This pattern rotates every night but fosters a competitive, interactive and fun approach that is fair to everyone. The menu plan is influenced by the equipment available, the type and number of saucepans available, storage facilities (freezers, fridges) and cooking equipment (microwave, cooker, hobs). Any limitation in cooking equipment can easily be overcome by pre-planning the menu, checking the availability of cooking equipment beforehand, and taking only the necessary equipment from home. Because of the small size of saucepans in most self-contained accommodation, we advise athletes to bring their own large-sized pans to cook for the group. Other useful items include a blender, storage containers, plastic film wrap, muffin trays and non-stick pan (or wok). Seasonings that are used in small amounts as ingredients in pre-arranged recipes are best bought from home (e.g. curry powder, stock cubes, dried herbs and spices). Further tips for helping athletes feed themselves by self-catering when away from home are found in Section 26.6.

26.4.7 Eating out

Most young athletes have a limited budget and cannot afford the accommodation cost as well as restaurant meals when travelling away from home. However, restaurant dining or take-away foods are a quick convenient meal for athletes who are tired and hungry, and a treat for those who are self-catering. Unfortunately, if food choices are poor, restaurant or take-away meals may not provide a suitable recovery meal. Such meals are usually too high in fat and too low in CHO to meet the needs of athletes preparing for the next bout of competition. Restaurant meals encourage over indulgence and are best visited at the end of competition as a treat or social occasion. In some circumstances, athletes are dependent on restaurants for meals or have accommodation which includes all meals. In these situations, advice about making suitable choices and avoiding meals known to be fatty (e.g. garlic bread and fried or crumbed meat) is warranted.

26.5 SUMMARY

Menu planning and organising food services for athletes is not only challenging, but gives the dietitian an opportunity to directly influence the food supply provided to athletes and to encourage and motivate athletes about food choice. The benefits to athletes of participating in cooking classes and designing their own menus are invaluable in developing much needed cooking skills and confidence in food preparation and selection. Ultimately, the goal of such a hands-on approach is to encourage consumption of the recommended training diet on an everyday basis, and for athletes to take a more active and personal responsibility for feeding themselves.

26.6 PRACTICE TIPS

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Introduction

- Menu planning allows the translation of nutrition principles into real food choices for athletes. Helping athletes select food provides an ideal opportunity to raise awareness of food choice, influence existing beliefs and attitudes, and ultimately to improve food selection.

Menu planning for athletic groups

- A menu must cater for the requirements of the team and the characteristics of individuals within that team. In most circumstances, menu planning will be sport-, gender- and age-specific (e.g. all boys or girls, footballers or rowers, under-19 squad or juniors). Menu planning needs to consider catering arrangements and facilities (self-catering or restaurant), climate, cost, timing of competition or training, cultural/special requirements, food safety, staff expertise and equipment.
- When catering for large groups of athletes from differing sports, the preferred option is the buffet-style self-service.

Strategies for providing meals for athletes in residence at the AIS

- The AIS accommodated approximately 250 athletes living in residence in 1999. The dining hall caters for these athletes and hundreds of visiting athletes in training camps, as well as coaches and staff.
- The role of the food service dietitian: a dietitian is employed on a part-time basis (26 hours per week) in food service. Job specifications of this position include:

1. development of the menu plan and the modification and analysis of recipes provided to athletes;
2. education of athletes about nutrition principles for sportspeople and food choice in the dining hall;
3. education and professional development of catering staff; and
4. evaluation of the menu plan by formal surveys and verbal feedback from representative athletes.

Recipe modification for caterers

- Australian cookbooks written specifically for sportspeople are available in bookshops or newsagencies (Burke et al. 1999; Modulon & Burke 1997; Inge & Roberts 1996; O'Connor & Hay 1996). However, any low-fat cookbook or recipe is suitable for athletes, although additional CHO-rich foods may need to be added to the final meal. Modifying existing recipes with lower fat ingredients or alternative ingredients is possible with most recipes, without a large change in texture or flavour. Table 26.1 provides some suggestions for modifying fat content in recipes.

Table 26.1 *Methods to reduce and modify fat in cooking and in recipes*

Oils or fats	Reduce the amount of fat for stir-frying Use spray oils and use water and/or stock for cooking
Butter	Check the amount and reduce if possible Replace with mono- or polyunsaturated margarines. Use moist ingredients such as buttermilk to enhance the taste
Cream	Use evaporated skim milk. For a thickened consistency, heat evaporated skim milk and thicken with corn flour
Salad dressings and mayonnaise	Use fat-free or reduced-fat varieties; skim or low-fat natural yoghurt and herbs
Sour cream	Use skim or low-fat natural yoghurt
Mature cheese (e.g. cheddar)	Use reduced-fat cheese*
Cream cheese	Mix together cottage cheese and low-fat ricotta cheese
Milk	Use skim milk, low- or reduced-fat milk
Curries	Use low-fat coconut milk or evaporated skim milk with a few drops of coconut essence

* For melting purposes, use a mixture of one part full-fat cheddar to four parts reduced-fat cheddar to improve consistency and flavour.

Guidelines for athletes when choosing foods from a buffet

- Most organised meals for athletes at training camps or competition venues are buffet-style.
- Athletes living and eating in a communal environment, and offered a buffet-style service, frequently overeat, miss out or eat sub-optimal amounts of one or more food groups (mostly vegetables), or habitually eat a poorly balanced diet. The advantages of living-in are that they don't have to cook, shop or plan meals. However, the disadvantages are a lack of involvement with food and cooking for themselves, a loss of food and cooking skills and not knowing the ingredients in a recipe.
- At the AIS we address these issues by:
 1. providing education sessions early in the training program on 'survival in the dining hall' and choosing wisely (Table 26.2 provides the written information given to athletes on this topic and summarises the content of this education session);
 2. the use of nutritional cards listing the nutrient composition of meals; and
 3. providing opportunities for teams to organise their own theme night which involves planning the menu, decorating the dining room, dressing up to match the theme and being actively involved in food service.

Nutritional cards

- Nutritional cards accompany the meals in the AIS dining hall. These cards list the ingredients contained in the dish, nutrient analysis (including CHO, fat and protein) and serve size. Calcium, iron and fibre content per serve are also included (if they are good sources). An example of a nutritional card is found in Figure 26.1.

Feeding athletes: an education program for catering staff

- Table 26.3 provides an outline of the content and format of the education sessions for catering staff responsible for feeding athletes at the AIS. The dietitian conducts these sessions. Aspects of this program can easily be adapted or converted into written guidelines to give to caterers who are providing meals for athletes on an ad hoc or one-off basis. Aspects of this information are also useful for the manager of a team who has the responsibility of organising meals or catering staff to feed athletes who are competing away from home.

Menu planning for self-catering

- Prior to departure, the dietitian needs to arrange a meeting with the team, coach and manager to determine the catering requirements, competition or

Table 26.2 *Tips provided to athletes about eating in the dining hall at the AIS*

1. Know clearly your nutritional goals and how to choose foods to achieve these goals most of the time.
If you are unsure of how to choose foods to achieve these goals, arrange to see a sports dietitian.
2. Be focussed and organised when planning your meal times and snacks.
Don't leave it to chance. Stick to this plan—don't try anything new or tricky at or around competition.
3. Treat the dining hall like a restaurant.
Look at the menu or do a lap to check out what is on offer. Make a decision as you wait in the queue. Don't just grab!
4. Don't concern yourself with the amount and type of food that other athletes are consuming.
The nutritional needs of other athletes may be quite different to your own. Don't be influenced by peer pressure.
5. Don't pile a bit of everything on your plate.
This type of eating is haphazard and unbalanced, and you'll probably end up eating more than you need.
6. Eat just what you need from a balanced food selection.
Check your plate for: mostly high-CHO foods, a protein-rich food, some vegetables or fruit—the more colourful, the more vitamins!
7. Read any nutrition information provided to learn more about your meal choice and to help make other food choices.
8. Relax.
There is plenty of food for everyone and menu items will be repeated. If you decide on one item tonight, you can look forward to another choice the next night. This isn't your last meal.
9. Plan for healthy snacks between meals—especially if you have high-energy needs. *Take what you need from the dining hall—fruit, yoghurt and bread/sandwiches are good choices.*
10. Don't hang around the dining hall once you have finished your meal.
You'll end up eating things that you don't need and don't remember.

Adapted from Modulon and Burke 1997

training schedules, and food skills of the team and allocated budget. For most local or national competitions where the athletes are not professional, self-catering is usually the preferred option because of financial constraints. Table 26.4 provides an outline of a suggested intervention strategy for a sports dietitian working with such teams.

- Cooking sessions emphasise quick and easy low-fat dishes and basic cooking skills. It is important to discuss food storage, food hygiene and food safety issues at this session.

Table 26.3 *Outline of content of education program for catering staff*

Week 1—Overview of the dining hall, standardisation of recipes, service standards
Week 2—Guidelines for healthy eating
Week 3—Nutrition for athletes: general requirements
Week 4—Nutrition for athletes: specific requirements
Week 5—Menu planning and recipe modification
Week 6 – Menu planning: practical

Table 26.4 *Tips for dietitians to prepare athletes for self-catering*

1. Discuss catering requirements with the athletes/manager/coach
2. Determine the cooking skills of the group
Plan a pre-camp cooking session(s) if feasible
Alternatively co-ordinate the cooking session during the camp, if the dietitian is travelling with the team
3. Determine in advance the cooking equipment and facilities available
4. Plan the menu around the length of stay, competition or training program
5. Designate responsibility for shopping and cooking of food among the athletes
6. Develop a list of basic ingredients and cooking equipment that can be taken from home and shared among the team

Planning for dining out

- Book a restaurant in close proximity to the accommodation rather than dropping in unexpectedly.
- Confirm that the menu provides appropriate and suitable foods for the age, budget, and food preferences of the team.
- If a large group of athletes are booked and planning is well in advance, send suitable menu selections (Modulon & Burke 1997).
- For a large group of athletes arrange a set à la carte menu with one of two choices or a buffet-style.
- Inform restaurants of estimated time of arrival.
- Ensure there is plenty of extra bread served with the meal.
- Ensure water and juices are kept well stocked during the meal.

REFERENCES

- Burke L, Cox G, Cummings N, et al. Survival for the fittest: The Australian Institute of Sport official cookbook for busy people. Sydney: Murdoch Magazines Pty Ltd, 1999.

- Cummings N. Survey—habits and knowledge of team athletes eating in the AIS dining hall. 1999 (unpublished).
- Hickson JF, Johnson CW, Schrader JW, et al. Promotion of athletes' nutritional intake by a university foodservice facility. *J Am Diet Assoc* 1987;87:926–7.
- Inge K, Roberts C. *Food for sport* cookbook, 3rd edn. Melbourne: New Holland Publishers, 1996.
- Modolon S, Burke L. *Cooking for champions: a guide to healthy large scale cooking for athletes and other active people*. Canberra: Australian Sports Commission, 1997.
- O'Connor H, Hay D. *The taste of fitness*, 2nd edn. Australia: JB Fairfax Creative Cooking, 1996.
- O'Connor H, Hay D. *Nutrition sports basics*. Australia: JB Fairfax Creative Cooking, 1998.

APPENDIX 26

Table 26.5 Weekly menu plan at the AIS dining hall

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Breakfast	Pancakes Baked beans Tinned spaghetti Grilled mushrooms Boiled eggs	Baked beans Grilled tomatoes Ham/poached egg on English muffin Bircher muesli with tinned berries	Pancakes Tinned spaghetti Stewed fruit Scrambled eggs	Muffins Baked beans Grilled tomatoes French toast Bircher muesli with tinned berries	Pancakes Baked beans Tinned spaghetti Scrambled eggs	Muffins Baked beans Tinned spaghetti Boiled eggs
Lunch						
Quick hot lunch	Chicken burgers	Pizza supreme Pizza vegetarian	Spicy meatballs with tomato-based sauce and pasta	Felafel with a homemade tomato sauce	Stir-fried vegetables in oyster sauce with rice noodles	Beef burgers, buns and salad
High CHO	Pasta bake	Pork satay with peanut sauce and pasta	Vegetarian fried rice	Pasta with chicken/ aubergine sauce	Pasta Bolognese	Pasta au funghi
Dinner						
Vegetarian	Vegetable strudel	Potato pie	Barbecue night (served outside) Mexicana sauce with pasta	Vegetable quiche	Spinach and cheese cannelloni	Stir-fried vegetables with rice
High CHO	Pasta carbonara	Chicken stir-fry and noodles	Jacket potatoes with assorted fillings	Alfredo sauce with pasta	Combination chow mien	Tuna pasta
Plain meat	Chicken schnitzel	BBQ pork chops with spicy plum sauce	Tandoori chicken Fish in foil T-bone steaks	Roast lamb and gravy	Steamed fish with grilled calamari	Roast beef with gravy
Other meat	Beef with black bean sauce with rice	Lamb and sun-dried tomato casserole		Stir-fried chicken and vegetable	Minute steaks in plum sauce with rice	Chicken cacciatore
Hot dessert	Stewed fruit	Butterscotch self- saucing pudding	Apple and rhubarb pie	Stewed fruit	Banana nut loaf	Choc self-saucing pudding
Cold dessert	Lemon meringue pie	Jelly & tinned fruit	Fresh fruit	Hazelnut mousse	Fresh fruit salad	Jelly & tinned fruit
Additional	Mango yoghurt Ice-cream Custard	Custard	Chocolate ice-cream Custard	Custard	Vanilla ice-cream Custard	Chocolate custard

Adapted from Australian Institute of Sport Dining Hall—spring/summer menu plan

