

# REVIEW

## Nutritional Value of Bahraini Foods

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### ABSTRACT

The present pattern of food consumption in Bahrain is compared favourably with many other developing countries. Progressive industrialization in Bahrain has brought increased purchasing power to households, with the result that the consumption of low-cost carbohydrate foods has decreased gradually. The consumption of animal protein foods and fruits has increased and improved the nutritive value of the meals (1).

Bahraini food patterns are becoming more dependent on imported and convenience foods. Generous and varied food supplies are available in the market, and the meal pattern of Bahraini families is likely to become more varied. About 46.8% of the total annual family expenditure is on foods, of which 18% is for cereals and cereal products, 15% for meat and eggs, 13% for fish, 12% for fruit and nuts, 7% for milk and milk products, 6% for vegetables and 29% for other foods (1).

### FOOD CONSUMED AT BREAKFAST

Studies have shown that without a good breakfast it is difficult to supply the recommended nutrients for the day. The contents of breakfast influence the blood glucose level. High protein contents elevate blood glucose above the fasting level for approximately 4 hours (2).

The most common breakfast both in urban and rural areas of Bahrain is tea with milk, bread, cheese and/or eggs. This breakfast contains a high amount of protein and energy. However, tea with milk and bread represents a good proportion of breakfasts in Bahraini families. The nutritive value of this breakfast depends on the amount of milk added to tea; but generally it is a poor breakfast (Table I).

TABLE 1

Energy and protein content of Bahraini breakfasts

Breakfast	Energy (Kcal)	Protein (g)
Tea with milk (one cup)	25	1.0
Bread (one) + tea with milk (one)	250	6.5
Bread (one) + Mahiawa + tea (one)	280	8.5
Ballaleet (small plate) + tea (one)	310	12.0
+ Kababs bread (one) + tea (one)	380	10.5
Bread (one) + cheese (one cube) + tea (one)	350	12.5
Bread (one) + egg (one) + tea (one)	370	12.5

Source : Musaiger, A.O.. *Traditional foods and dishes in Bahrain*. Ministry of Information, State of Bahrain, 1983.

### BETWEEN-MEAL SNACKS

Eating between meals is not in itself an offence to good nutrition: the kind of food may be. In Bahrain the majority of the people do eat snacks. Most of the

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foods eaten for between-meal snacks are found consistently to provide energy to a greater extent than essential nutrients, especially protein (Table 2).

**TABLE 2**  
**Energy and protein content of snacks commonly consumed in Bahrain**

<i>Snack</i>	<i>Energy (Kcal)</i>	<i>Protein (g)</i>
Carbonated beverage (one)	80	—
Chips (one packet) + cola (one)	200	1.5
Chapati (one)+ tea (with milk, one)	290	7.0
Hamburger (one)+ Cola (one)	345	16.0
Aaloo (three) + chapati (one)+ cola (one)	471	7.0
Sambosa, meat (3) + Chapati (one)+ cola (one)	513	10.5

**Source :** *Musaiger, A.O.. Traditional foods and dishes in Bahrain. A.O.. Ministry of Information, State of Bahrain, 1983.*

Good foods for snacks are those that provide at least as great a percentage of the day's total requirements for several of the essential nutrients. Milk, yoghurt, cheese, fruits and hamburger are good for in-between-meal eating. Poor snack foods are those that provide "empty calories" such as carbonated beverages, tea, coffee, sweets and candies. It is interesting to note that the food eaten between meals should not hamper the appetite for the next meal. High intake of *chapati*, *sambosa*, *aaloo*, tea, coffee, etc., satisfy the appetite quickly and hamper the appetite.

### FOODS CONSUMED AT LUNCH

Generally, lunch should provide not less than one-third of the recommended allowances of nutrients. In Bahrain, because lunch is the main meal, it should provide about half of the Recommended Daily Allowances. When the lunch is inadequate the total food intake for the day is apt to be inadequate as well. The deficiencies caused by a poor lunch are difficult to supply by snacks.

In Bahrain, rice and meat or chicken or fish are the main foods eaten at lunch. The rice used in Bahrain is a polished one, which has a lower proportion of nutrients than unpolished rice. The custom of repeatedly washing, boiling and straining the foods leads to

removal of some nutrients, particularly water soluble vitamins (vitamins B complex and vitamin C). But the supplementation of rice with meat, fish or chicken improves the nutritional value of the rice. WHO (3) reported that mixtures of plant and animal protein (e.g. rice and fish or meat) have proved not to be different from eggs or milk protein when fed to men and women in amounts that maintain nitrogen balance.

In general, most dishes consumed at lunch in Bahrain contain little water soluble vitamins and iron (4). Studies (5, 6) showed that anaemia was very common among Bahraini mothers and their children. Therefore, supplementation of lunch with iron rich foods is highly recommended in order to improve the iron deficiency status. Table (3) shows the most common foods rich in iron.

**TABLE 3**  
**Foods rich in Iron**

<b>Food</b>		<i>mg iron per 100g edible portion</i>
<i>Common Name</i>	<i>Bahraini Name</i>	
Fenugreek seeds	Helbah	22.0
Pistachio nuts	Bastak	14.0
Mollasses	Dibs	10.0
Basil	Rayhan	9.8
Tehineh	Tehineh	9.0
Liver	Kibdah	8.2
Mint	Na Na	8.0
Chickpea	Nekhee	7.3
Bean	Loobah	7.0
Lentils	Adas (dahal)	7.0
Broad bean	Bajelah	6.0
Kidney	Kalawi	6.0
Jew's mallow	Mulukhiya	5.6
Parsley	Bagdunes	5.1
Heart	Kalb	4.5
Coriander	Kuzbarah	4.0
Fig, dried	Teen	3.0
Beef	Laham	2.6
Dates, dried	Tammer	2.1

**Source :** *Pellet P.L. and Shadarevian S. Food composition., tables for use in the Middle East. American University of Beirut, 1970.*

If we assume that the amount consumed by a Bahraini adult at lunch is 500 grams (of the dish), the Bahraini dishes (*machbous*, or *masley*) could supply a high proportion of the energy and protein needed to meet the Recommended Daily Allowances, but not of iron and water soluble vitamins.

#### FOODS CONSUMED AT DINNER

Dinner (evening meal) may also fail to supply its fair share of the days' dietary nutrients. The main foods eaten at dinner in Bahrain are; bread, tea with milk, cheese and/or eggs, *loobah*, *dahal*, *nekhee*, *bajelah*, *macaronna*, *tunna* and *tikkah*. All these foods (except tea and bread) have a high nutritive value. However *loobah*, *dahal*, *nekhee*, and *bajelah* need to be supplemented by eggs, cheese, milk or yoghurt, to improve the quality of their proteins.

#### FOODS CONSUMED DURING PREGNANCY, PUERPERIUM AND LACTATION

Food habits about certain types of food frequently limit the choice and use of available food resources and directly affect the nutritional status of the mother and her baby. Most Bahraini mothers did not change their food habits during pregnancy and lactation, i.e. they ate the same staple foods; but, however, they did eat special foods during puerperium (7).

It is well known that during lactation the increase in nutrient need is dependent primarily on the quantity of milk secreted. The Recommended Daily Allowances for nutrients were made on the basis of an average secretion of 85ml of milk daily. The daily amounts recommended exceed those in any other period for women (2).

Special foods consumed during puerperium in Bahrain are *Hesso*, *Gellab*, *Asida* and chicken. Most of the mothers believe that such foods are nutritious, help to cleanse the uterus of blood, to replace blood loss and increase milk secretion (7). These foods are rich in high quality protein, except *Gellab* which contains protein of low biological value.

#### CONCLUSION

**In general foods commonly consumed in Bahrain are good if compared with many other developing countries. However, many of these foods contain little water soluble vitamins and iron. Nutrition education, therefore, should emphasise the adequate intake of foods rich in such nutrients.**

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