

Traditional Foods of Turkish Cuisine

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Abstract: Turkish cuisine, researchers understand foods, beverages used to feed the people living in this country, their preparation, cooking and preparation tools, equipments and methods used to carry out all these processes, manners of eating and all the beliefs and applications developing around the kitchen. The richness of variety in Turkish cuisine depends on many factors. In short, the variety of products offered by the fertile soils of Asia and Anatolia, interactions taking place among many different cultures throughout a long history, new tastes developed in Seljuk and Ottoman palaces all have played some roles in the formation of the kitchen culture. Turkish cuisine includes many samples showing great variety and appealing various tastes, as well as samples which can be a source of healthy and balanced diets and vegetarian kitchen.

Key words: Traditional foods, Turkish cuisine, cuisine culture, equipments, balanced diets

INTRODUCTION

There are rich and colorful cuisines of great variety in today's Turkic world extending over a big geography. With its styles of cooking, table arrangements and service types, the Turkish cuisine is among the prominent cuisines of the world (Surucuoglu, 2001a). Patterns of feeding have been shaped by the cultural, ecological, geographic and economic structures and historical processes. When we hear, for instance, Turkish cuisine, we understand foods, beverages used to feed the people living in this country, their preparation, cooking and preparation tools, equipments and methods used to carry out all these processes, manners of eating and all the beliefs and applications developing around the kitchen. The richness of variety in Turkish cuisine depends on many factors. In short, the variety of products offered by the fertile soils of Asia and Anatolia, interactions taking place among many different cultures throughout a long history, new tastes developed in Seljuk and Ottoman palaces all have played some roles in the formation of the kitchen culture. In general, the Turkish cuisine mostly including types of dishes made of grains, vegetables, meat juice, soups, olive oil, pastry and naturally-grown greenstuffs has also created healthy foods such as grape molasses, yogurt, cracked wheat, etc. Manners of eating and drinking including flavors changing from region to region give special meaning, even holiness to special days, festivals and celebrations. Turkish cuisine includes many samples showing great variety and appealing various tastes, as well as samples which can be a source of healthy and balanced diets and vegetarian kitchen (<http://www.msxlabs.org/forum/satirlarla-turkiye>).

Every civilization has been located in a geographical area where historical events have taken place. The biggest role in the spread or disintegration of a civilization is assumed by the natural conditions of time. Geographical factors negatively or positively affect human societies and their economic, political and cultural lives. The history has 3 basic never-changing elements: Place, time and man. Geographical place is influential on the life of the society living on it in various ways. For instance, the lives of people living by the sea are different from the lives of people living in plateaus and the lives of communities living by the river are different from the lives of people living in steppes (Unsal, 2006). Turks mostly supported by agrarian and animal stockbreeding activities moved to west and south when agricultural conditions deteriorated in Asia. In their new homelands, they not only used wild animals and naturally grown vegetables but also raised animals and grew vegetables which could adapt to the existing conditions then they processed and stored them. One of the most prominent grains used by Turks as a food is wheat.

The wheat was used in various forms as flour and cracked wheat, etc. Some vegetables and fruits were consumed as fresh and they were also dried to be consumed in winter months (Artun, 1998). Since, 11th century, the most popular dessert consumed by Turks has been grape molasses. In old times, Turks used to consume grape molasses by mixing it with taklan produced from wheat and barley flour but today, it is mostly consumed by mixing with tahini produced from sesame oil. Among spices, black pepper called 'murec' mustard called 'kici' and salt are sources of flavor for many dishes and they were among the basic ingredients of

Turkish cuisine in 11th century. In 11th century and during the following centuries, the most popular food after meat for Turks were pastries cooked with vinegar and yogurt and there is a great similarity between the feeding patterns of 11th century and those of the people living in villages of modern Turkey (Akman and Mete, 1998).

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GENERAL CHARACTERISTICS OF TURKISH CUISINE CULTURE

Nomadic type of life and agriculture-based economy affected Turkish cuisine. There is a variation in dishes cooked according to socio-economic status of families. In terms of varieties of dishes, the Turkish cuisine has been affected from other cuisines and affected them:

- Agricultural structure and the effects of nomadic culture
- Influences coming from other communities

- Variation based on socio-economic status
- Behavioral patterns
- Tradition of eating together
- Kitchen arrangement
- Dishes for special purposes (<http://www.msxlabs.org/forum/satirlarla-turkiye>)

Food groups: Adequate and balanced diet is the basic requirement of a healthy life in every stage of life. It must be noted that starting from infancy, healthy diet is essential for maintaining a healthy life (Guneyli, 1988). Some of the foods are rich in energy, some are rich in proteins and some others are rich in vitamins. Foods similar to each other in terms of their nutritional values can be collected under certain groups:

- Group 1; meat and meat products, egg and legume
- Group 2; milk and milk products
- Group 3; vegetables and fruit
- Group 4; grain and grain products
- Group 5; oils and fats and desserts (Baysal *et al.*, 2005)

If there is one or more nutrients of each of these food groups in a dish, then the balanced diet can be created (Baysal *et al.*, 2005). The pre-requisite of an adequate and balanced diet is to consume different types of nutrients in a proper mixture and at amounts required (Baysal, 2001). When the Turkish dishes are examined in this respect, it is seen that they are quite balanced mixtures (Baysal *et al.*, 2005). For instance in stuffed vegetables, there is meat or lentil from the 1st group, vegetables from the 3rd group, rice or cracked rice from the 4th group and oil from the 5th group. As the stuffed, vegetables are traditionally served with yogurt, they make up balanced mixtures. Among the soups, tarhana soup, toyga soup (soup made with yogurt, hazelnut, rice, egg and mint), lentil soup and yayla soup (soup made with yogurt, rice and mint) make up also balanced mixtures (Baysal *et al.*, 2005). In Turkish cuisine, dishes are made by bringing nutrients from different food groups rather than single food. As best examples for these, stuffed vegetables and stuffed vine leaves, vegetable dishes with meat, some pastry products and meat balls with vegetables can be given. Hence, by eating 1 or 2 different types of dishes, nutrients from 4 food groups can be taken (Baysal, 2001).

Some traditional foods and their importance in Turkish cuisine: Turkish cuisine is famous for meat dishes such as shish kebab and döner kebab (sliced meat on a vertical spit) made with sheep and lamb meat in the world. Production of animal products has not been able to catch

up with the rapid population growth and there is an inequality in income distribution and as a result, many families cannot afford to purchase red meat. Many people raising their own animals in the past used to consume red meat products such as fried meat and sausages moved to urban areas and now they have to get by with low incomes hence, they cannot afford red meat any more. Majority of the public make their stuffed vegetables and vine leaves with rice, cracked rice or lentil without meat and their Turkish type ravioli with potato instead of meat. And consuming such dishes with a lot of bread cannot meet the nutritional needs of the children at development stage and mothers (Baysal *et al.*, 2005; Baysal, 1993). Turkish style fermented sausage produced by mixing meat with various spices is a product of a culture specific to Anatolia. Though, the place of origin of Turkish style fermented sausage is not known for sure, the city of Kayseri is known as the hometown of sausage. The people of Kayseri say that the taste of their pastrami and sausage comes from the breezes of Erciyes Mountain. In literature, sausage is described as minced meat mixed with spices and then filled into dried guts. But, there are different stories told about the origin of sausage. In old times, for the workers working in fields, it was very difficult to eat meat. Due to hot weather, meat could easily go off. In order to prevent meat from going off, it was mixed with a lot of spice and it could be stored for a longer time. Yet, the contact of the minced meat with the air had to be cut off and after few trials, gut was found to serve this function. Cleaned and dried guts were used to put minced meat into them and allowed meat to be kept for a long time without spoiling. In environments where there was no electricity, the desire to eat meat was fulfilled in this way. There is not much information about where the word sausage (*sucuk*) originated. There are some rumors about its coming from Greek, Latin and Arabic yet, there is no agreement on an origin word.

Pastrami is known to have been consumed first by Hun Turks according to Roman documents. In a research penned by a Roman writer, Waber Bldamus, it was mentioned that Amianus of Antalya told something about Turks' meat eating habits in 273-275 A.D. In the saddles of Turkish Hun cavaliers, there used to be dried meat, invention of the art of pastrami by Ghuzz Turks moving to Anatolia and settling there and making of dried, salted and smoked meat by the nomads inhabiting today's Middle East steppes as a preparation for Winter months are all evidence showing that it originated in Middle Asia. Turks well rehabilitating their animals and generating many new breeds were without doubt the people making the best use of the meat of these animals. Pastrami production in Kayseri started under the influence of Turks

immigrating from Middle Asia and developed over time. Famous travel writer, Evliya Celebi in his famous research, *Seyehatname*, mentioned the uniqueness of beef pastrami and sausage of Kayseri (<http://www.hepsiyoresinden.com/pastirma-tarihi>). Pastrami can be consumed raw and it can also be consumed by frying it with egg, by adding it to dry bean dish and in different pastry products and dishes. Milk and milk products are one of the main sources of nutrients that should never be excluded from diets in any stage of life. Turks have never given up consuming milk and milk products throughout their history. They produced many world-famous products from milk such as yogurt, cheese, butter, cream, fermented mare's milk (*kimiz*) and kefir. Especially, yoghurt has a unique place in Turkish cuisine and Turkish eating culture (Surucuoglu, 2001a). Yoghurt occupies an important place in the feeding of Turkish society. It was first made by Turks in Middle Asia and there spread all over the world. In Ottoman era, yoghurt was one of the foods indispensable to royal kitchen and public kitchen. In the era of Fatih the Conqueror, yoghurt was consumed in yoghurt bowls and also by putting on dishes and mixing with dishes. Spinach with yoghurt, Turkish ravioli with yoghurt, spinach beet with yoghurt, *tutamac* with yoghurt, grape molasses sweet with yoghurt were among the favorite foods of Fatih the Conqueror. Moreover in Seljuk era, *ayran* was made from yoghurt (Surucuoglu, 2001b; Unver, 1952). Yoghurt is also used as sauce in Turkish cuisine. In old times, Turks used to produce cheese from milk in the same way as they made yoghurt. By drying yoghurt, a type of cheese was produced and this was called *kurut* or *kurut yoghurt*. Today, there are many different types of cheese either being imported or locally produced sold in market places. Some local cheeses can be found anywhere in the country and produced under the name of city or region where it was originated. Some of the cheese types are Urfa cheese, Erzincan tulum cheese, Van otlu cheese, Kars cheddar cheese, Abaza cheese, tel cheese, civil cheese, Izmir tulum cheese, Cyprus halloumi cheese. Kefir came to the country from Caucasia. Raw material of kefir is cow, sheep, goat or mare milk and it can be produced, even from the remnants of some milk processing activities. Its value has been recently appreciated in our country (Gonul and Ozkan, 2001).

Vegetables have very important place in the diets. Vegetables are poor in their energy content but rich in vitamins, minerals and pulps. Vitamins and minerals are nutrients that should be taken in adequate amounts every day for healthy development, growth and maintenance of health. Today, it is known that consumption of vegetables rich in vitamins and minerals

prevents many chronic diseases and is effective in treatment of many diseases. Vegetable dishes with meat, vegetables in olive oil, salads, stuffed vegetables and vine leaves are among the indispensable dishes of Turkish cuisine (Bulduk and Yabancı, 2001). Grains are the main group of foods grown and consumed by Turks since, very old times. In the country, on average, 148 kg. wheat is consumed per-person. The 52% of the total energy consumption comes from wheat (Baysal *et al.*, 2005). In general, wheat is consumed by being ground into flour. Wheat flour is used in the production of bread, basis of Turkish feeding system. As it is a staple and good source of energy, bread has an important place in the diets. One of the most consumed food items, bread is consumed on average 180-210 kg. Per-person and its daily average consumption is 300-500 gr. It is estimated that 45% of average 2291 calorie energy consumption per-person in the country comes from bread and 47% of average 68 g protein consumption per-person in the country comes from bread (Talay, 1997). In villages, the term 'let's eat bread' is used instead of 'let's have a meal' and this is a good indication of the importance of bread in the culture. Especially in Summer months, bread-grape, bread-yoghurt, bread-tomato, bread-cheese make up the lunch of many people. Wheat flour is the basic ingredient of many foods such as pastry, Turkish ravioli, flaky pastry, pancake and cupcake. When home-made pasta such as noodles and kuskus are made with the addition of egg and milk, they become more nutritious (Baysal *et al.*, 2005). Bread is of great importance to Turkish cuisine. Bread is the most prominent staple in Turkish culture. Therefore, it is made in great variety in that they have different names depending on their style of baking and they are baked in various shapes and flavors. Bread is usually made by adding water, salt and yeast to grain flours and then they are mixed and fermented and finally baked. Type of the flour used, its performance, whether it is prepared with yeast or not whether different ingredients such as oil, meat, cheese, various vegetables are added to it are considered while classifying bread in terms of its content. Bread has been usually baked in the form of loaf, flatbread or phyllo pastry throughout the history. These 3 types are also popular today (Tezcan, 2000). Cracked wheat is a food specific to Turks and the main staple in rural areas. In urban areas, cracked wheat is also consumed but rice is more popular. Rice and cracked wheat are usually consumed as pilaf. Pilaf's nutritional value is the sum of that of rice or cracked wheat and that of vegetables, chick-pea, lentil, meat, chicken, mussel, prawn, nuts and grape added to it. Such additions increase the nutritional value of pilaf and make it more enjoyable to eat. Among soups, tarhana, yayla, toyga and

lentil soups represent balanced nutritional mixtures. In toyga and tarhana soups, yoghurt, rice or cracked wheat and chick-pea are used in combination and they are served together with vegetable salads or vegetable dishes; hence, their nutritional value is high. Stews also represent balanced diets as they have cracked wheat, potato, carrot, onion, etc., in addition to meat. In some regions, yoghurt is also added to such dishes. In pilafs with meat or vegetables the ratio of balanced energy is 10-15%. At the same time, they have enough vitamins and minerals. Kebaps with vegetables are also served together with ayran or pilaf and hence they make up nutritionally balanced dishes (Baysal *et al.*, 2005).

Turkish desserts are among the indispensable parts of Turkish cuisine. The desserts dating back to Ottoman era represent the richness of the kitchen culture, past and the traditions. Huge part of royal kitchen in Ottoman period was reserved for dessert making. The most popular sweeteners were honey and grape molasses. However, over time they were replaced by sugar (Baysal, 1990). The country has geographical conditions suitable for viticulture. Thrace, Marmara, Central Anatolia, Aegean and Southeast Anatolia regions are popular areas of viticulture and the history of viticulture in these areas dates back to 3000 B.C. In the periods of ancient Turkish civilizations, viticulture spread from Anatolia to the world. In the Ottoman period, viticulture exhibited a brilliant performance. Famous poet of Anatolia in ancient age; Homers, mentioned most frequently consumed food and beverage by seafarers in *Odyssey* and *Iliad* epic poems and these are meat and wine. The grape wine of Anatolia was famous in Greek and Roman eras. It is possible to see motifs of a bunch of grapes and a branch of grapevine on many historical works of art (e.g., tomb and statue) in Aegean and Mediterranean museums belonging to ancient period. In Konya-Karahoyuk excavations, containers in the shape of a bunch of grapes belonging to early Hittite era were unearthed. In addition to being consumed as fresh fruit, grapes can be dried and eaten like a nut. Moreover, dried grape is widely used in the production of grape molasses, in dessert making, Noah's pudding, cakes and biscuits, compote to add extra nutrients and flavor. The country takes the lead in the export of dried grape in the world trade with 1,89,000 ton. As it is not produced as a nut in European countries, it is mostly consumed within cakes and biscuits. The 24% of the grapes grown in the country are consumed as fresh fruit, 35% of them are consumed as dried grapes, 3% are consumed in the form of wine and 37% are turned into grape molasses. On average, it is estimated that 20% of all the grapes grown are used for grape molasses production. Before sugar, the main ingredients of Turkish desserts

were honey and grape molasses. Hence, grape molasses has been the most important sweetener of the traditional eating culture and taste. Grape molasses found by Turks as a means of food protection prolong the longevity of grapes and grape juice which can easily be spoiled in a short time and help to meet sweet and sugar needs. Molasses is a kind of sweet liquid produced by boiling fruit juice and the most popular one is grape molasses. Besides grape, molasses is produced from mulberry, plumb, apple, pear, sugar beet, watermelon, pomegranate, etc. In recent years, carob molasses has also become very popular. The fruits of Syrian Juniper are also used to produce molasses. With the changing conditions, molasses started to be produced less. In times when urban culture was not developed, families in rural areas used to have their own vineyard to meet their grape and sweet needs. Moreover, factors such as the increasing immigration from country to urban areas, changing life styles of rural people and increasing demand for sugar decreased the production of molasses. Molasses and dried fruit roll-up are produced in regions where there are vineyards. The best quality ones are produced in Zile, Kirsehir, Kastamonu, Sivrihisar, Balikesir, Afyon, Kahramanmaraş, Gaziantep and Hatay. Molasses is given names according to regions where it is produced. For instance, in Zile, Zile molasses, in Gaziantep, agda, in Kirsehir, calma, in Balikesir, bulama and in Maras, masara are produced. In the country, grape molasses is produced in September and late October when grapes are ripened and this period is called the time of molasses. In general, the juice obtained by pressing grapes is called sira (slightly fermented grape juice). The molasses produced can be consumed as sweet but it can also be used in the production of different desserts (<http://www.yenidenerge.nekon.com/59-turkun-tatlisi-pekmez>).

As can be understood from the popular sayings of the culture such as eat sweet and talk gently and you can catch more flies with honey than vinegar, desserts have an important place in the culture. And there is a great variety of desserts in the culture. Dumpling sweets, fruit sweets, milk sweets, baked sweets and sweets made of mixing grains and legume are the main groups of sweets (Tezcan, 2000). Among the sweets, the most popular one is baklava. Baklava is prepared by mixing flour, oil and sugar to make the dough and then nut, peanut, cream, walnut, etc. are put into it and then baked. Other popular desserts are bulbul yuvasi (nightingale's nest), dilber dudagi (sweetheart's lips), hanım gobegi (samolina desserts), hanım parmagi, date sweets, ekmekek kadayifi (crumpets in thick syrup), yassi kadayif (small pancakes in thick syrup), lokma (yeast fritters in thick syrup), samsa (multi-flaked pastry with walnut filling), sarigi burma

(sultan's turban dessert), sam baba (baba dessert), sekerpare (baked soft pastry dipped in thick syrup), tulumba tatlisi (dough pastry deep fried dipped in syrup), vezir parmagi (grand vezir's finger shaped pastry in thick syrup), revani (samolina cake soaked in light syrup) and cookie. Many of these desserts are the products of royal kitchen in Ottoman period which was always in pursuit of new tastes and some of them such as hanım gobegi, dilber dudagi, vezir parmagi and tulumba tatlisi could not be found in public kitchens. In the production of dumpling sweets, oil and sugar having high energy values are used. Grains and cereal products are rich in vitamins and minerals and they have great contributions to healthy diet. In this group of nutrients, there are B vitamins and iron which make them valuable foods. Among the milk sweets, the most popular ones are muhallebi (milk pudding), sutlac (rice pudding), tavuk gogsu (chicken breast pudding), kazandibi (pudding with caramel base) and keskul (milk and almond pudding). Yet, the most traditional dessert in Turkish cuisine is Noah's pudding dating back to the story of Adam forgiven by God (Halici, 1988). Wheat flour and semolina are the main ingredients of halva dessert and many dumpling sweets (Baysal *et al.*, 2005).

Pickles having an important place in the cuisine culture are not only eaten as snacks in meals but they are also used as main ingredients of some meals. As a means of storing foods, pickles are in great variety. They are made from various vegetables and fruits (Ucer, 1997).

CONCLUSION

Many of the dishes in Turkish cuisine are cooked in healthy ways (Merdol and Tayfur, 1993). Apart from some kebaps and vegetables, Turkish dishes are cooked in water. Therefore, the dishes are not very oily (Baysal, 2001). But, a considerable number of dishes are cooked by frying or roasting. Such cooking methods can lead to occurrence of harmful substances in oil and loss of nutrients, hence such methods should be avoided as much as possible (Merdol and Tayfur, 1993).

REFERENCES

- Akman, M. and M. Mete, 1998. Turkish and World Cuisine. Selcuk University Press, Konya.
- Artun, E., 1998. Culinary Adana. In: Studies on Turkish Cuisine Culture, Turkish Folk Culture Research and Promotion Foundation Publication, Ankara, pp: 19.
- Baysal, A., 1990. Nutrition our culture. Ministry of Culture, Cultural Works Series, 157, Ankara.

- Baysal, A., 1993. Changes in food culture in Turkey, the assessment in nutrition and Health: Culinary studies on Turkey. Turkish Folk Culture Research and Promotion Foundation, Publication No. 3, Ankara, pp: 12-21.
- Baysal, A., 2001. Comparison of the Turkish and Chinese cuisine. Culinary studies on Turkey in 2000. Foundation for the Promotion of Turkish Folk Culture Research Publication No. 28, Ankara, Turkey, pp: 27-34.
- Baysal, A., T.M. Kutluay, N. Cigerim, H.F. Sacir and S. Basoglu, 2005. Examples from Turkish Cuisine. Hatiboglu Printing, Baski, Ankara.
- Bulduk, S. and N. Yabanci, 2001. Squash blossoms stuffed with meat: Culinary studies on Turkey. Turkish Folk Culture Research and Promotion Foundation Publication, Publication No. 29, Ankara, pp: 61-65.
- Gonul, F. and A. Ozkan, 2001. Produced in Turkey dairy products North Caucasus origin: Culinary Studies on Turkey. Turkish Folk Culture Research and Promotion Foundation Publication No. 29. Ankar, pp: 68.
- Guneyli, U., 1988. Eating habits in children 4-6 age group and its factors. Nutr. Diet J., 17: 37-45.
- Halici, N., 1988. Anatolian cuisine. Proceedings of the Symposium on Turkish Cuisine, April, 1988, Ministry of Culture and Tourism, MIFAD Publications, Ankara, pp: 105-111.
- Merdol, T.K. and M. Tayfur, 1993. Food fried or roasted in Turkish Cuisine made modified? Culinary studies on Turkey. Turkish Folk Culture Research and Promotion Foundation Publication, Publication No. 3, Ankara, pp: 43-53.
- Surucuoglu, M.S., 2001a. In our culture nutrition milk and milk products. Turkish Folk Culture Research and Promotion Foundation Publication No. 29, Ankara, Pages: 137.
- Surucuoglu, M.S., 2001b. Turkey in the World Culinary a research on some countries: Culinary studies on Turkey in 2000. Turkish Folk Culture Research and Promotion Foundation Publication, Publication No. 28, Ankara, pp:139-170.
- Talay, M., 1997. Ek Science and Technology. Ray Film Industry Organization Ltd. Printing, Istanbul, pp: 5.
- Tezcan, M., 2000. Turkey anthropology of food writing, food and health relationships to a cultural look at our country. T.C. Ministry of Culture, Publications No. 2515, Ankara.
- Ucer, M., 1997. Food in Turkish cuisine made with pickle: Culinary studies on Turkey. Turkish Folk Culture Research and Promotion Foundation, Publication No 20, Ankara, pp: 151-160.
- Unsal, V., 2006. Historical geography of the Eastern Black Sea. Ataturk Univ. Instit. Soc. Sci. J., 8: 129-144.
- Unver, S.A., 1952. Fatih revolution foods. Istanbul University Institute of the History of Medicine, Istanbul.