

California Food Guide

Health and Dietary Issues Affecting Eastern Europeans and Middle Easterners

By Sharmila Chatterjee M.Sc., M.S., R.D., C.D.E.

What's New?

In many nutrition studies and health reports, data on Middle Easterners and Eastern Europeans are not broken down by subgroup. Thus it is difficult to differentiate between subgroups from the same region. Little is known regarding their nutritional status and health risks. In addition, very few studies are available on food habits of these populations in California. In the 2000 U.S. Census Bureau report, the majority of the people from the Middle East claimed an Arab Ancestry.¹

For the Eastern Europeans, a recent study has shown that people who closely follow the "Mediterranean Diet" live longer than other Europeans.² It is not a specific diet or a program but a collection of foods and traditional eating habits followed by the people of the Mediterranean region. There are at least 16 countries bordering the Mediterranean Sea and the diets vary between these countries according to culture, ethnic background, and religion. But there are a number of characteristics common to them all:

- A high consumption of fruits, vegetables, potatoes, beans, nuts, seeds, bread, and other cereals.
- Olive oil, which is high in monounsaturated fat, is used for cooking and dressing moderate amounts of fish, but little meat.
- Moderate consumption of red wine usually with meals.
- Low to moderate amounts of full fat cheese and yogurt.
- An active lifestyle.



Public Health Implications

Research suggests that the incidence of type two diabetes, hypertension, high rates of insulin resistance, low levels of high density lipoproteins (HDL) cholesterol, and a tendency towards abdominal obesity are the major health risk factors prevalent among Arab Americans.³

A recent World Health Organization (WHO) report showed that obesity rates have increased globally, including in the Middle East and Eastern Europe.⁴

Definition

According to the 2000 U.S. Census Bureau report, about 1.2 million people in the United States reported an Arab ancestry.¹ An Arab ancestry includes people with ancestries originating from Arabic-speaking countries or areas of the world known as Arab. These include people who reported being Arab, Egyptian, Iraqi, Jordanian, Lebanese, Middle Eastern, Moroccan, North African, Palestinian, and Syrian. Kurds and Berbers who are not considered as Arab were included in this group as well.

The largest Arab groups in the United States are Lebanese, Syrian, and Egyptian. Over 25 percent of Middle Easterners have settled in California.³ Of the total Middle Eastern population in California, 190,000 (56 percent) are Arabs, including 53,000 are Lebanese, 19,000 are Syrian, and 30,000 are Egyptian.¹ A significant number (14,000) of Palestinians also live in California. The number of people with Arab ancestry increased in most states between 1990 and 2000. In the state of California alone the population increased by 48,000, more than any other state.¹

People from the other non-Arab countries, who live in California, include 159,000 Iranians, 24,000 Israelis and 15,000 Turkish.⁵ Iranians are the second largest Middle Eastern group of people living in California after Arabs. About 47 percent of the total Iranian immigrant population in the United States lives in California.

The countries from the Middle East that are at the Eastern end of the Mediterranean Sea include Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen.³

The countries bordering the Mediterranean Sea include the nations of Greece, Albania, Romania, Bosnia-Herzegovina, the Federal Republic of Yugoslavia (containing the continent republics of Montenegro and Serbia), Croatia, Slovenia, Bulgaria, and the Former Yugoslavian Republic of Macedonia (FYROM).³ The people from these countries collectively are known as the Balkans or Eastern Europeans.

A significant group of people originating from the Eastern European countries living in California includes 125,000 Greeks, 56,000 Romanians, 39,000 Croatians, and 49,000 Yugoslavians.⁵

Traditional Food Habits of The Middle East and East European Countries^{3, 6, 7}

Both the Middle East and Eastern European countries have similar food cultures. Many ingredients such as wheat, olives, and dates are indigenous. The most significant differences in food habits are dietary restrictions due to religion and geographical locations. The food compositions are very similar, but the method of cooking or the terms used for a particular dish may slightly differ between the East European countries and the Middle East.

Dairy

Most dairy products are eaten in fermented forms (yogurt and cheese). Whole milk is commonly used for making puddings and desserts. A high incidence of lactose intolerance is reported.

Adaptation to the United States: Ice-cream is more popular. Feta cheese is most commonly used.

Meat/Poultry/Fish/Eggs/Legumes

Lamb is the most popular meat. Traditionally, pork is eaten only by Christians and not by Muslims or Jews-similarly, Jews do not eat shellfish. Egyptians and many Middle Easterners do not combine fish with dairy products in a meal. Kosher beef, kosher poultry, herring, and sardines are most commonly consumed. A popular dish is *kabob*, which are marinated pieces of meat that are threaded onto skewers and grilled over a fire.

Legumes such as chickpeas (garbanzo beans) are most commonly used to make *hummus*, *soup* and *falafel* (deep fried balls). Other legumes used in many dishes are black beans, lentils, navy beans, and red beans.

Adaptation to U.S.: Lamb is still very common. There is a higher intake of beef and less use of legumes than in their homelands.

Breads/Cereals

Some form of wheat or rice usually accompanies every meal. Leavened loaves are very typical of Greece and other Eastern European countries and leavened flat breads are common among the nations of the Middle East. Pita or *paid*, is a thin round Arabic bread with pockets in the center known as *pocket bread* in the U.S. *Lavash*, is a larger crisp flat bread also called *cracker bread* is the most common form of bread consumed. *Filo* dough (paper thin pastry sheet) is used to make a dessert with nuts called *baklava* or *paklava*. A popular salad made with bulgur is called *tabbouleh*, which is mixed with tomato, mint, olive oil, vinegar, and parsley.

Adaptation to the U.S.: Pita bread is widely used. Bread and grains are eaten at all meals.

Vegetables/Fruits

The most popular vegetable is eggplant. A popular version is *baba ghanoush* (a dip made with grilled eggplant and *tahini*, olive oil, lemon juice, and garlic puree). Often vegetables are stuffed with rice or meats. Green and black olives are present in many dishes and olive oil is frequently used for cooking and food preparation.

Fruits are eaten raw as desserts or snacks. Apricots, cherries, figs, dates, grapes, melons, pomegranates and, quince are preferred. Pears, plums, and pumpkins are more popular in Eastern Europe. In general, vegetables and fruits are preferred raw or mixed into salads.

Adaptation to the U.S.: Less fruits and vegetables are consumed.

Burden

Overall obesity is on the rise for people from the Middle East and Eastern Europe.⁴ Since the culture in the Middle East does not promote physical activity, the immigrant population does not perceive it as a health benefit. Therefore, the lack of physical activity can give rise to obesity related health problems.

Research has shown that diabetes, hyperlipidemia, and obesity are a major health problem among Arab Americans.^{8, 9, 10, 11, 12} Relatively high rates of undiagnosed diabetes and abnormal glucose tolerance especially among young adults seem to indicate that the future prevalence of diabetes and cardiovascular disease will continue to rise as the population ages. Increase in prevalence of diabetes will impose a significant public health burden and present a challenge to health care providers.

Incidence and Prevalence

The prevalence of abnormal glucose tolerance is common in Arab Americans affecting 41 percent of the population between the ages of 20-75 years and greater than 70 percent of those over 60 years of age. About 18 percent of the population between the ages of 20-75 years have diabetes whereas 36 percent of men and 54 percent of women over the age of 60 years have diabetes.⁹ The prevalence of diabetes in Arab countries varies from three percent in Sudan to 35 percent in Bahrain. A study reported that the combined prevalence of impaired glucose tolerance (IGT) and diabetes in Bahrainis varied from 40 percent in men aged 40-49 years of age to 60 percent in women aged 60-69 years of age.¹⁰

High prevalence of increased plasma cholesterol has also been reported in this group.¹¹ The underlying syndrome for the Arab populations is comprised of insulin resistance, raised total cholesterol levels and raised Apo-lipoprotein B levels.¹¹ The authors concluded this pattern resembles that of the metabolic disorder known as metabolic syndrome occurring in familial combined hyperlipidemia.¹¹

The prevalence of obesity, especially among women, is very high in this population. It is reported that glucose intolerance and insulin resistance increases as women pass through menopause.^{9, 10} In men, abdominal obesity is the cause for increased insulin resistance and glucose intolerance.

Research has also shown that increased body mass index (BMI) among Arab Americans was significantly correlated with increased blood pressure, increased total cholesterol and decreased HDL-cholesterol levels putting them at high risk for cardiovascular diseases (CVD).¹¹ High incidence of CVD has also been reported among the Saudi population.¹²

Similarly, a recent report showed that the rate of obesity is increasing faster in the countries of Eastern Europe compared to Western Europe due to the arrival of fast foods and lack of physical activity. A WHO report stated that the two European countries leading the pack in this epidemic are Romania and former Yugoslavia.¹³

Trends/Contributing Factors

There is very little information on adaptation of the Eastern European or Middle Eastern diet in the United States. One study found that lack of acculturation to healthy American lifestyle is correlated with increased prevalence of impaired glucose tolerance.¹⁴ On the contrary populations that maintained their traditional food habits have been shown to have a decreased risk of mortality compared to westernized society.¹⁵

However, like all other immigrant groups, increasing length of stay is associated with some Americanization of the diet with traditional foods eaten on special occasions or as part of the main meal. Greek Americans prefer an American type of breakfast and lunch, but dinner consists of traditional foods.³ It has been reported that since 1960 olive oil consumption has decreased in Greece and that alcohol consumption has increased.

One study found that, in the past, the Middle East had a food insecurity problem that is now replaced with abundant availability of food due to urbanization.¹⁶ Obesity and its related chronic diseases are emerging, particularly in the urban areas. Lack of physical activity among Middle Eastern women may be contributing to the increasing prevalence of obesity especially in older women.¹⁶ In addition, sedentary lifestyle and the increased intake of fat, greater than recommended allowances, has added to the increasing prevalence of obesity and its metabolic complications.

Barriers to Implementation/Myths

Obesity among the Arab populations is not always perceived as a health risk. It is very likely that cultural preference for female plumpness added to physical and cultural barriers to physical activity contribute to the very high prevalence of obesity among adult Arab women.¹⁶ An active lifestyle for both men and women is not easy to promote to those of Middle Eastern descent, particularly in the context of health benefits. So far, little attention has been given to this problem.

Different religious and dietary restrictions could be a barrier as well. Many people from these cultures observe Muslim, Jewish, and Eastern Orthodox religions, which influence their food choices. For example, Muslims do not eat any form of pork or meat that has been slaughtered without mentioning God's name. This may restrict their choices of lean meat. Muslims cannot drink alcoholic beverages or foods flavored with alcohol. During Ramadan, Muslims fast from sunrise to sunset practicing a religious obligation.⁷

The kosher dietary laws concerning selection, preparation, and eating of food remain influential in Jewish religious and family life. The Jewish laws of kashrut, or keeping kosher, determine which foods are kosher and non-kosher.

Hence, the cultural food habits and habits influenced by religion may already limit their choices of various foods that are available in the United States, coupled with the lack of availability of ethnic foods, which further add to their limitations.

Common Concerns/Strategies

Since the data on Middle Easterners and Eastern Europeans are not broken down by subgroup, it is extremely hard to differentiate between the subgroups. Moreover, there is very little information regarding their nutritional status and food habits in the United States let alone California. Prevalence information about obesity, diabetes or cardiovascular diseases among Arab Americans or Eastern Europeans in California is not available. Therefore, creating a community based intervention program to prevent obesity, diabetes, and cardiovascular diseases would be extremely difficult.

In addition, not much research has been done on Eastern Europeans living in the United States related to the prevalence of any particular disease. Although obesity has been reported among Romanians and former Yugoslavians, little is known about this population in the United States.

Research indicates that people who follow a traditional Mediterranean diet live longer.² These studies have been done in the Mediterranean region and there is no data available in the United States to show if the immigrant population improved their longevity by following the traditional diet.

Variations that exist in each cultural group, such as different religious backgrounds, locations of origin, lengths of stay in the United States, and cultural diversity within the Middle East and Eastern Europe, may impose challenges for developing community based programs targeting ethnic groups appropriately. Caution should be taken not to generalize cultural characteristics to individuals belonging to this subgroup.

Opportunities for Improvement

There is definitely a need for increased public health awareness and regular surveillance for obesity, diabetes, and cardiovascular diseases in Arab-American communities. It is also essential to develop culturally sensitive community-based strategies aimed at prevention and management of obesity and its metabolic complications.

Health promotion strategies that emphasize the adverse health consequences of obesity will have to take into account the apparent perception of obesity as a desirable attribute in Arab populations.

Given the significant prevalence of diabetes, preventive programs are imperative considering the relatively young age of the population with IGT and impaired fasting glucose (IFG) among Arab Americans. If this young population is not monitored and treated they are at high risk for developing type two diabetes. Similar programs to prevent cardiovascular diseases are also necessary.

It is also important to have the ability to work with persons from culturally diverse backgrounds such as those from the Middle East and Eastern Europe. Many people from these cultures follow different religions, which significantly influences their food habits and religious practices. Therefore, knowledge on their culture and ethnicity is essential while developing such programs.

Clinical Implications

High prevalence of obesity is reported among Middle Easterners and Eastern Europeans. Metabolic syndrome is a common health problem among the Arab Americans.

Resources/Web Sites

1. <http://www.nal.usda.gov/foodstamp/Topics/ethnic.htm>
2. <http://www.semda.org/info/pyramid.asp?ID=1>
3. <http://www.nal.usda.gov/fnic/pubs/bibs/gen/ethnic.html#12>

References

1. De La Cruz P, Brittingham A. 2000. United States Census Bureau. 1-9. 2003.
2. Trichopoulou A, Costacou T, Bamia C, et al. Adherence to a Mediterranean diet and survival in a greek population. *New England Journal of Medicine*. 2003; 348:2599-2608.
3. Kittler PG, Succher KP. *Food and Culture in America*. 4th Edition. Wadsworth: 2004. p 315-70.
4. World Health Organization. Obesity and Overweight. 2005. Available at <http://www.who.int/dietphysicalactivity/publications/facts/obesity/en>. Accessed October 28, 2006.
5. United States Census Bureau. Ancestry 2000. 2000. Available at http://factfinder.census.gov/home/saff/main.html?_lang=en. Accessed October 28, 2006.
6. Dahl M. Middle Eastern Nutrition. *Health Care Food and Nutrition Focus*. 2004; 21(5):6-8.
7. Nolan J. Cultural Diversity: Eating in America. Middle Eastern. Ohio State University Extension Fact Sheet. *Family and Consumer Sciences*. 1-6. 2005. <http://ohioline.osu.edu/hyg-fact/5000/5256.html>
8. Jaber L, Slaughter R, Grunberger G. Diabetes and related metabolic risk factors among Arab Americans. *The Annals of Pharmacotherapy*. 1995;29:573-76.
9. Jaber L, Brown M, Hammad A, et al. Epidemiology of diabetes among Arab Americans. *Diabetes Care*. 2003;26(2):308-13.
10. Mahroos F, McKeigue P. High prevalence of diabetes in Bahrainis. *Diabetes Care*. 1998;21(6):936-42.
11. Hatahet W, Khosla P, Fungwe T. Prevalence of risk factors to coronary heart disease in Arab American population in Southeast Michigan. *International Journal of Food Sciences and Nutrition*. 2002;53:325-35.
12. Al-Nuaim A. High prevalence of metabolic risk factors for cardiovascular diseases among Saudi population, Aged 30-40 years. *International Journal of Cardiology*. 1997;62:227-35.

13. Spritzer D. Obesity Migrates East. 2004. Available at <http://www.cmaj.ca/cgi/content/full/171/10/1159>. Accessed October 28, 2006.
14. Jabber L, Brown M, Hammad A, et al. Lack of acculturation is a risk factor for diabetes in Arab immigrants in the US. *Diabetes Care*. 2003;26(7):2010-14.
15. Lubin F, Lusky A, Chetrit A, et al. Lifestyle and ethnicity play a role in all-cause mortality. *Journal of Nutrition*. 2003;133:1180-85.
16. Galal O. Nutrition-related health patterns in the Middle East. *Asia Pacific Journal of Clinical Nutrition*. 2003;12(3):337-43.