

The results of the study described on the following page are included in the frequency distribution below. Complete the chart and answer the questions that follow.

	Cancers (A)	Deaths (B)	Nonfatal illness (C)	Healthy (D)	Total
AHA (E)	15	24	25	239	
Mediterranean (F)	7	14	8	273	
Total	22	38			605

Assume a patient is randomly selected from this study. Find the probability, rounded to three decimal places, that

<p>1. the patient is healthy</p> <p>$P(D) =$</p>	<p>2. the patient healthy given that the patient followed the Mediterranean diet</p> <p>$P(D F) =$</p>
<p>3. the patient developed cancer</p> <p>$P(A) =$</p>	<p>4. the patient developed cancer given that the patient followed the Mediterranean diet</p> <p>$P(A F) =$</p>
<p>5. the patient followed the AHA diet</p> <p>$P(E) =$</p>	<p>6. the patient followed the AHA diet given that the patient is healthy</p> <p>$P(E D) =$</p>

Mediterranean Diet and Health

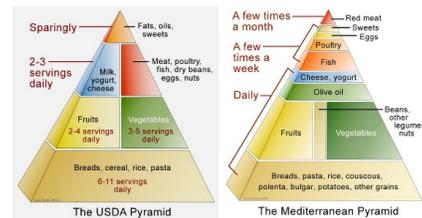
RESEARCH CONDUCTED BY:

De Longerrill et al.

CASE STUDY PREPARED BY:

David Lane and Emily Zitek

USDA vs. Mediterranean Dietary Recommendations



USDA—United States Department of Agriculture

OVERVIEW

Most doctors would probably agree that a Mediterranean diet, rich in vegetables, fruits, and grains, is healthier than a high-saturated fat diet. Indeed, previous research has found that the diet can lower risk of heart disease. However, there is still considerable uncertainty about whether the Mediterranean diet is superior to a low-fat diet recommended by the American Heart Association. This study is the first to compare these two diets.

The subjects, 605 survivors of a heart attack, were randomly assigned to follow either (1) a diet close to the "prudent diet step 1" of the American Heart Association (control group) or (2) a Mediterranean-type diet consisting of more bread and cereals, more fresh fruit and vegetables, more grains, more fish, fewer delicatessen foods, less meat. An experimental canola-oil-based margarine was used instead of butter or cream. The oils recommended for salad and food preparation were canola and olive oils exclusively. Moderate red wine consumption was allowed.

Over a four-year period, patients in the experimental condition were initially seen by the dietician, two months later, and then once a year. Compliance with the dietary intervention was checked by a dietary survey and analyses of plasma fatty acids. Patients in the control group were expected to follow the dietary advice given by their physician.

The researchers collected information on number of deaths from cardiovascular causes e.g., heart attack, strokes, as well as number of nonfatal heart-related episodes. The occurrence of malignant and nonmalignant tumors was also carefully monitored.

DESCRIPTIONS OF VARIABLES

VARIABLE	DESCRIPTION
Type of diet	AHA or Mediterranean
Various outcome measures of health and disease	does the patient have cancer, etc.?

LINKS

[More on the Mediterranean Diet](#)

REFERENCES

Mediterranean dietary pattern in a randomized trial: prolonged survival and possible reduced cancer rate., 1998, Jun 8, de Lorgeril M1, Salen P, Martin JL, Monjaud I, Boucher P, Mamelle N.