

Research Corner

Karen R. Bruni-Fitzgerald, MHS, MSN, FNP-BC, CVN

Recent Findings from the Nurses' Health Study (NHS):

The Nurses' Health Studies are among the largest and longest running investigations of factors that influence women's health. Started in 1976 and expanded in 1989, the information provided by the 238,000 dedicated nurse-participants has led to many new insights on health and disease. While the prevention of cancer is still a primary focus, the study has also produced landmark data on cardiovascular disease, diabetes and many other conditions. Most importantly, these studies have shown that diet, physical activity and other lifestyle factors can powerfully promote better health. Below are some recent findings from the study.

Coffee Consumption and Diabetes:

Previous studies found that higher coffee intake is associated with a lower risk for type 2 diabetes; but there has not been a study examining how changes in coffee consumption habits influence subsequent risk of diabetes.

Using data from the NHS, NHS II and HPFS (Health Professional Follow Up Study), it was found that individuals who increased their coffee consumption by more than one cup per day over a four-year period had an 11 percent lower risk of type 2 diabetes in the subsequent four years compared to those who made no changes in consumption. Those who lowered their daily coffee consumption by more than one cup had a 17 percent higher risk of diabetes. Changes in consumption of decaffeinated coffee and caffeinated tea were not associated with changes in risk for type 2 diabetes. (Bhupathiraju et al. *Diabetologia*.2014 Jul;57(7):1346-54)

Mediterranean Diet and Telomere Length:

The traditional Mediterranean diet which is characterized by a high intake of vegetables, fruits, nuts, legumes, whole grains, fish, and olive oil-has been consistently linked with an array of health benefits, including decrease risk of chronic disease and cancer.

It has been found that the greater adherence to the Mediterranean diet is associated with longer telomeres, which are repetitive DNA sequences at the ends of chromosomes. Telomeres are considered biomarkers of aging. They get shorter every time a cell divides, and shorter telomeres have been associated with a decreased life expectancy and increased risk of age-related diseases.

The NHS calculated a Mediterranean Diet score, indicating extent of adherence to a traditional Mediterranean diet, among 4,676 women in the NHS. The difference in telomere length for each one-point change in the diet score was comparable, on average to the difference in telomere length between women 1.5 years apart in age-meaning that the greater adherence to the Mediterranean diet may promote health and longevity. (Crous-Bou et al. *BMJ*. 2014;349-g6674)

Diet, Hearing Loss, and Tinnitus:

Hearing impairment and tinnitus, a ringing or buzzing sound in the ear that can be severely disabling, are both common in adults. Hearing impairment affects almost 48 million Americans, and nearly 25 million people in the U.S. experience tinnitus. Recent findings in the Nurses' Health Studies' Conservation of Hearing Study (CHEARS) identify potentially modifiable dietary factors that may help prevent or mitigate these conditions.

It was found that women who ate two or more servings per week of any type of fish or shellfish had a 20 percent lower risk of hearing loss compared with those who rarely consumed fish. In addition, they found that compared with women who consumed the least amount of caffeine (less than one cup of coffee per day), those who consumed the equivalent of three to four cups of coffee per day had a 15 percent lower risk of tinnitus. (Curhan et al. *Am J Clin Nutr.* 2014;100(5):1371-1377. Glicksman et al. *Am J Med.* 2014;127(8):739-743.