

POOR DIET, LITTLE EXERCISE, SMOKING: WESTERN WAYS THAT PROMOTE HEART DISEASE

Many studies have shown that heart disease, diabetes, and cancer may be prevented with a good diet and regular exercise. For those living in the Western world, their diets are rich in calories, saturated fat (animal fat), salt, sugar, and processed foods. And, they often smoke, have increased mental stress, and little physical activity.

This type of lifestyle has been linked with heart attacks, stroke, obesity and the development of diabetes. People who are of African descent and live in Western countries more often have hypertension compared to people of similar age living in Africa.

We conducted a survey among 83 Africans, 60 men and 23 women, who had come from sub-Saharan Africa to Italy. We wanted to find out how risk factors for heart disease were affecting these individuals. The study participants were recruited from a clinic dedicated to migrants.

We asked each participant for information on: when they moved to Italy; family history of heart attacks or stroke, type of exercise, and smoking habits. We measured each person's height and weight to calculate the "body mass index" (BMI), which is an index of obesity. This index is calculated as the body weight in kilograms divided by height squared in meters. If the result of this formula is between 25 and 30, the person is overweight; if this result is higher than 30, the person is obese; if this result is between 20 and 25, the person has a normal weight.

We also measured the waist circumference since a large waist (or abdominal obesity) is a very important risk factor for heart disease. We also performed blood pressure measurements and some laboratory analysis including cholesterol HDL ("good cholesterol"), LDL ("bad cholesterol"), plasma glucose, and elec-

trolytes in blood and urine (sodium, which is contained in salt, and potassium, which is contained in vegetables and fruit).

Study participants who recently arrived in Italy were found to have a low-risk for heart disease. But, the longer a participant had been in Italy, the worse their risk factors were. We found that the lower the potassium in the urine (probably because of a diet poor in vegetables and fruit), the higher the blood pressure.

Source: Blood Pressure and Cardiovascular Risk Profiles of Africans Who Migrate to a Western Country

Ligia J. Dominguez, MD; Antonio Galioto, MD; Antonella Pineo, MD; Anna Ferlisi, MD; Laura Vernuccio, MD; Mario Belvedere, MD; Giuseppe Costanza, MD; Ernesto Putignano, MD; Mario Barbagallo, MD

EXERCISE AND REDUCE HEART DISEASE RISK

Studies have shown that African American children have more risk factors for heart disease and stroke and are less physically active than White children. We wanted to find out how physical activity was linked to heart disease risk factors in pre-teen, low-income African American girls participating in the Stanford Girls Health Enrichment Multi-site Studies (GEMS) study. We measured the girls' physical activity with an accelerometer.

Most of the girls spent 96.2% of their day in either sedentary or light activity and only 3.8% in moderate-

to-vigorous physical activity. On average, their daily physical activity was linked to their weight, insulin levels but not to cholesterol or blood pressure levels.

We also examined the effects of different categories of physical activity and heart disease risk factors. When analyzed separately, only the amount of moderate intensity activity was linked to insulin levels, and only vigorous activity was linked to body mass index (a measure of weight).

Our study results show that less physical activity is linked with higher

insulin levels and higher body mass index in healthy, low-income African American girls. This may put them at increased risk of type 2 diabetes and subsequent heart disease. Future efforts should be designed to help African American girls increase physical activity and decrease sedentary behaviors to reduce heart disease risk factors.

Source: Objectively Measured Physical Activity and Cardiovascular Disease Risk Factors in African American Girls

Sofiya Alhassan, PhD; Thomas N. Robinson, MD

AMERICAN INDIAN AND ALASKA NATIVE FAMILIES CARING FOR THEIR OLDER FAMILY MEMBERS

As a large number of people from the baby boomer generation grow old in the United States, the need for caregivers increases. In the United States, almost 34 million family members provide care to another family member at least 50 years old.

Based on a national survey (the 2000 Behavioral Risk Factor Surveillance System), 16.4% of all US adults were caregivers to a person who was at least 60 years old. By ethnic group, the survey found that 17.6% of American Indian and Alaska Native adults, 11.0% of Asian adults, 18.1% of Black adults, 16.7% of Hispanic adults, 16.2% of White adults were caregivers to a person who was at least 60 years old.

Many families are not prepared to care for an older adult and do not know how or where to obtain outside help with caregiving activities. In the same national survey, 9.1–16.7% of caregivers did not know where to turn for caregiving resources. Because caregivers

do not know about options, especially in rural and reservation areas, many families are left as the main source of care.

Like many other racial and ethnic groups, American Indian and Alaska Natives continue to provide the majority of care for family members who need care. Almost one-third of the American Indian and Alaska Native participants in the survey said they would provide care if an elderly friend or relative could no longer care for themselves. Yet, caregiving can be stressful and American Indian and Alaska Native caregivers report the same type of stresses and burdens as caregivers of other racial and ethnic groups.

The lifestyles of American Indian and Alaska Native adults may not be the same as the traditional lifestyle of earlier generations. They no longer live in multigenerational, extended family arrangements, as they once did. Most older American Indian and Alaska Natives who do not need care or assistance, live alone or with their spouse. When care is

needed, American Indian and Alaska Native caregivers and care recipients are more likely to live together than are White caregivers and their recipients. The extended family network of American Indian and Alaska Native families, even though they may not live in the same house, and their willingness to provide care for an elderly relative or friend may be two reasons why American Indian and Alaska Native adults provide care.

Caregiving touches the lives of many families. Caregiving, which often means great personal sacrifice, benefits society as a whole, as well as individual recipients and their families.

Source: Characteristics of American Indian and Alaska Native Adult Caregivers, Behavioral Risk Factor Surveillance System, 2000

Lisa C. McGuire, PhD; Catherine A. Okoro, MS; R. Turner Goins, PhD; Lynda A. Anderson, PhD

WESTERN DIET AND HEART DISEASE

When people in developing countries adopt a Western lifestyle including changes in diet and exercise, they often increase their chances of having more risk factors for heart disease and diabetes. The most common risk factors for heart disease, blood pressure and cholesterol, are getting worse in the developing world and may be linked to the increase in rates of heart disease and diabetes in these populations.

In our community-based study, we wanted to know more about biomarkers of blood vessel function, inflammation, lipids, and levels of cholesterol, homocys-

teine, folate, and vitamin B₁₂. We wanted to find out more about how these factors were related to heart disease.

Study participants were elderly African Americans living in Indianapolis, Indiana and Yoruba Nigerians living in the city of Ibadan. Participants were 70 years of age or older and we examined blood samples in 2001 from 1,510 African Americans and 1,254 Yoruba Nigerians.

We compared body measurements, blood pressure, levels of cholesterol, homocysteine, folate, vitamin B₁₂ and other indicators of blood vessel function.

Cholesterol, triglycerides (another type of fat in the blood) and low density lipoprotein (bad) cholesterol were higher in the African Americans compared to the Yoruba Nigerians. Another study has shown that the Yoruba diet consists of 78% carbohydrates, 10% fat, and 12% protein. In comparison, the African American diet is 52% carbohydrate, 34% fat and 15% protein.

Whether these differences in risk factors account for the different rates of heart disease and other diseases in these two populations remains to be determined.

Source: A Comparison of Cardiovascular Disease Risk Factor Biomarkers in African Americans and Yoruba Nigerians

M. Deeg MD, PhD; O. Baiyewu, MD; S. Gao, PhD; A. Ogunniyi, MBChB; J. Shen, MS; O. Gureje, MBBS, MSc, PhD; S. Taylor, MA; J.

Murrell, PhD; F. Unverzagt, PhD; V. Smith-Gamble, MD; R. Evans, MD; J. Dickens, MD; H. Hendrie, MBChB, DSc; K. Hall, PhD

THE METABOLIC SYNDROME IN PUERTO RICO

Compared to other ethnic groups, Hispanics have an unequal burden of certain health conditions including HIV/AIDS, type 2 diabetes, asthma, chronic obstructive pulmonary disease, obesity, and liver disease.

The metabolic syndrome is an important risk factor for heart disease and type 2 diabetes. The metabolic syndrome is a cluster of risk factors such as high blood pressure, extra weight around the waist (abdominal obesity), reduced high density lipoprotein (HDL) cholesterol, and high levels of triglycerides and fasting glucose. Mexican Americans have been found to have a higher rate of metabolic syndrome compared to other US populations.

Since health behaviors vary considerably across Hispanic subpopulations, our study examined how often the metabolic syndrome and its individual components

appeared in a sample of 859 adults, 21 to 79 years of age, living in the San Juan, Puerto Rico.

We found that 43.3% of participants had the metabolic syndrome. The older the participant, the more likely he or she would have the metabolic syndrome. Only 12.8% of the 21- to 29-year-old participants had the metabolic syndrome compared 58.2% of the 70- to 79-year-old participants. For men in the study, by 50–59 years of age, 62.6% had the metabolic syndrome. On the other hand, the rate (65.2%) peaked for women at age 70–79 years.

High glucose levels (49.8%) and abdominal obesity (49.0%) were the most common factors of the metabolic syndrome followed by high blood pressure (46.1%), reduced high density lipoprotein cholesterol (46.0%), and high levels of triglycerides (31.3%). Men had higher rates of high triglycerides, blood pressure

and fasting glucose, whereas women had higher rates of abdominal obesity and reduced high density lipoprotein cholesterol.

Because of the increase of cardiovascular disease and related risk factors in the Latino/Hispanic community in the United States, more studies that include a broader representation of Hispanic subgroups are needed. It is likely that important differences exist in the factors contributing to the metabolic syndrome and its complications.

Source: Prevalence of the Metabolic Syndrome in San Juan, Puerto Rico

Cynthia M. Pérez, PhD; Manuel Guzmán, MD; Ana P. Ortiz, PhD; Mayra Estrella, MPH; Yari Valle, MPH; Naydi Pérez, MS; Lillian Haddock, MD; Erick Suárez, PhD

HOW CARDIOVASCULAR RISK FACTORS MAY BE LINKED TO POORER MENTAL ABILITY

Certain medical conditions may have a negative impact on the brain. Some research suggests that cardiovascular risk factors such as high blood pressure, obesity, and high lipid levels can have a negative impact on your memory and your ability to process things quickly or to plan effectively.

It is thought that cardiovascular risk factors may harm your mental abilities by affecting the arteries in your brain. Much research suggests that this may happen, especially in the case of high blood pressure. Yet, most of this research

examines only older adults who tend to be more at risk for cardiovascular events.

A condition known as the metabolic syndrome is made up of a clustering of cardiovascular risk factors and may be particularly problematic for the brain. The impact of several cardiovascular risk factors occurring at the same time, as happens with the metabolic syndrome, may have a more harmful effect on your mental abilities than one cardiovascular risk factor alone. This possibility has not been well-studied and has never been

examined in a group made up of African Americans only.

For our study, we wanted to determine whether any of the risk factors among African Americans work together to create a negative impact on the mind. Data were collected from 106 African American adults between the ages of 21 and 73 (mean age =44). Participants provided a blood sample, had their waist circumference measured, and completed five tests of mental ability. The relationships between blood pressure, waist circumference, triglycerides, high den-

FOR THE PATIENT

sity lipoprotein (HDL), and various mental abilities were analyzed. The findings suggested that there is a relationship between cardiovascular risk factors and mental abilities. Higher diastolic blood pressure was associated with poorer performance on the tests. Lower HDL levels (the good cholesterol) were associated with poorer performance as well. In addition, there was some evidence that diastolic blood pressure and triglycerides may work

together to negatively impact mental abilities.

The outcomes in this study are important because they suggest that cardiovascular risk factors can affect the mental abilities of African Americans at younger ages, not just in old age as other studies have shown. Having knowledge of critical periods of risk can help healthcare providers and patients to be aware and take preventive measures to decrease their risk of

problems. This area of research deserves more attention to help preserve the mental abilities of African Americans.

Source: Patterns of Relationships between Cardiovascular Disease Risk Factors and Neurocognitive Function in African Americans

Regina Sims, PhD; Serge Madhere, PhD; Clive Callender, MD; Alfonso Campbell Jr, PhD

HIGH BLOOD PRESSURE IN URBAN GHANA

Hypertension, also known as high blood pressure, is a common health problem worldwide. Hypertension used to be thought to be very rare in most African societies, especially in rural communities. It is now emerging as an important public health problem in sub-Saharan Africa where researchers report that hypertension is often not detected and in most cases remains untreated. For those with hypertension, this increases the possibility of developing complications including stroke, heart failure and kidney failure.

In our study, we surveyed government workers in urban Ghana to establish how common hypertension was in this population and how well it was treated and controlled to acceptable blood pressure levels. Out of 1015 workers studied, 307 (27.4%) had

hypertension. Only half of those with hypertension said they had been told they had hypertension and only about a third were on anti-hypertension medication. Hypertension was controlled in only 12.7%.

Women were more likely to have been previously diagnosed, be on treatment and have better blood pressure control. The risk of developing hypertension increased with increasing age and increasing body mass index (a measure of the weight of an individual scaled according to height). Study participants who were most active physically at work had the lowest risk of hypertension.

This high rate of hypertension in this population may be linked to the adoption of harmful lifestyle behaviors known to accompany with industrialization and urbanization. Eating processed foods

with high fat and salt and having little physical activity, which results in overweight and obesity, are likely factors to the increase in hypertension.

When hypertension is diagnosed in individuals, it must be treated to reach healthy blood pressure levels. If efforts to prevent and control hypertension do not exist, we will find greater rates of hypertension in this population and the subsequent increased possibility of developing complications, particularly stroke, and the devastating effects on individuals, families and populations.

Source: Prevalence, Detection, Management, and Control of Hypertension in Ghanaian Civil Servants

Juliet Addo, MChB, PhD; Liam Smeeth, MRCP, PhD; David A. Leon, PhD

UNHEALTHY BEHAVIORS LEAD TO CHRONIC DISEASE IN THOSE 50 YEARS OF AGE AND OLDER

Over the next several years, we can expect to see an increase in chronic diseases such as diabetes, hypertension, arthritis, and asthma. For example, in the United States, the number of persons living with two or more chronic conditions is expected to increase from

61 million in 2000 to 81 million in 2020 (a 33% increase).

For different groups (for example, non-Hispanic White, non-Hispanic Blacks, Asian and Hispanics) researchers have found that some have more unhealthy lifestyle factors for chronic

diseases than others. These factors include smoking, drinking, obesity, and physical inactivity.

At the same time, some groups have lower rates of chronic disease. Asians had a lower rate of chronic diseases than any other racial/ethnic group of individuals

older than 50 years of age. This seemed to be, in part, due to their healthier lifestyle compared to other racial/ethnic groups. Asians generally were less likely to be heavy and/or binge drinkers, smokers, physical inactive, and overweight or obese. Also, Asians and non-Hispanic Whites were more likely to have healthcare coverage compared to other racial/ethnic groups including Hispanics, and non-Hispanic Blacks.

Among all participants, 50 years of age or older, physical inactivity and obesity were linked with diabetes, hypertension, and arthritis. Smoking was also linked with

chronic diseases. For example, Non Hispanic Whites and Hispanics who currently smoked were more likely than those who never smoked to have asthma and arthritis. Asians, who currently smoked or had smoked in earlier years, were more likely than those who never smoked to have diabetes. In all racial/ethnic groups, persons with diabetes were more likely to be nondrinkers compared to the entire population, as well as to those who did not have diabetes.

Elimination of racial/ethnic differences in the rates of chronic diseases, and in access to care, has been given high priority

among US health officials. This study shows the need for culturally appropriate prevention programs for selected ethnic/racial groups of older adults. Such programs need to consider the habits of particular groups, as well as target behaviors of greatest concern for each.

Source: Association Between Selected Unhealthy Lifestyle Factors, Body Mass Index, and Chronic Health Conditions Among Individuals 50 Years of Age or Older, by Race/Ethnicity

Lina S. Balluz, ScD; Catherine A. Okoro, MS; Ali Mokdad, PhD

READ THE NEWSPAPER FOR HEALTH INFORMATION

If you're Black, chances are your local Black newspaper will have better health information for you and your family than the general newspaper in town. That's what researchers in this study found as they examined how Black newspapers in African American communities cover health and cancer issues, and reader perceptions of their coverage.

A two-year national sample of 24 Black newspapers and 12 general audience newspapers from the same communities was reviewed. A total of 8,690 health and cancer stories were identified and analyzed. A survey of 783 Black newspaper readers in the same 24 communities examined how often newspapers were read and perceptions of reporting for both Black and general audience newspapers, as well as readers' health concerns and cancer screening behaviors.

The study had three main findings. First, Black newspapers publish more cancer stories than general audience newspapers, and this coverage tends to be locally relevant and contains action steps, referrals to additional resources, and prevention information. Findings from both the newspaper analysis and reader survey also support claims that Black

newspapers are community focused. Black newspapers are also a trusted source of cancer information, trusted more than general audience newspapers or other media sources. Black and general audience newspapers both appear to serve important functions in Black communities. The unique aspects of Black newspapers – including covering issues and events specific for their local African American readership – might lend themselves to covering cancer or other health topics in a similar, community-focused way.

Second, respondents to the reader survey thought that health issues other than cancer were more serious for Blacks, yet cancer was the most important health issue for them personally. This discrepancy is interesting given that cancer is the second leading cause of death among Blacks in the United States – and that rates of new cases or deaths for a wide range of cancers are higher among African Americans than any other racial or ethnic group.

Third, the study found that frequency of reading general audience newspapers differed by amount of education, income, and age, but remained constant for readers of Black newspapers. This

finding highlights and supports one unique feature of Black newspapers – that their use is more universal and not limited to members of the population with higher levels of education or income. As a result, use of the Black newspaper as a channel for cancer communication should reach a broader group of African Americans than would general audience newspapers.

Results from this study suggest that the Black press could play an important cancer communication role. Research using these media channels can help inform future health communications, have implications for cancer-related policies, and hold promise for helping eliminate cancer disparities by increasing cancer awareness, prevention, and screening among African Americans.

Source: Black Newspapers as a Tool for Cancer Education in African American Communities

Charlene A. Caburnay, PhD, MPH; Matthew W. Kreuter, PhD, MPH; Glen Cameron, PhD; Douglas A. Luke, PhD; Elisia Cohen, PhD; Lillie McDaniels, MPH; Monica Wohlberg, MHA; Paul Atkins, MHA

LOW LEVELS OF ADIPONECTIN LINKED TO HEART DISEASE

Adiponectin is a hormone produced by fat cells and is excreted into the blood stream; if people have low levels of adiponectin, they may be more likely to have heart problems. Researchers believe that different ethnic groups have lower levels of adiponectin than general populations. This lower level may be linked to higher rates of type 2 diabetes and cardiovascular disease in ethnic populations.

We conducted this study to find out if adiponectin and heart disease were linked among Filipino-American women in San Diego County, California. We examined data from the University of California, San Diego Filipino

Women's Health Study (1995–1999). Stored blood samples were analyzed in 2004 and gave us information on adiponectin levels.

The type of heart diseases we included in the study were: coronary heart disease, angina, myocardial infarction or stroke. Study results showed that 21% (55/266) had heart disease; and 47 of these 55 women (85.5%) were newly diagnosed with heart disease during the clinical evaluation alone. We found a significant link found between low levels of plasma adiponectin and heart disease. History of heart attacks in parents and microalbuminuria (kidney disease) were also linked with heart disease.

From these results, we conclude that not only is it important for doctors to actively detect and manage heart disease and associated risk markers in their Filipina patients, but that adiponectin, as a potential target of therapy, may have important clinical implications among Filipino-Americans with heart disease.

Source: Cardiovascular Disease Prevalence, Associated Risk Factors, and Plasma Adiponectin Levels among Filipino American Women

Cheryl P. Magno, MPH; Maria Rosario G. Araneta, PhD; Caroline A. Macera, PhD; Gwen W. Anderson, PhD, RN