

OBESITY AND LUNG FUNCTION IN NAVAJO AND HOPI CHILDREN

Childhood obesity is now a major public health issue in the United States. About 30% of children ages 6–19 are overweight or obese. Some ethnic groups, including Native Americans, have higher rates of obesity. There are many health problems associated with obesity. Although several studies have shown that obesity is linked to a poor cardiovascular and metabolic risk profile (high blood pressure, high cholesterol

and blood sugar levels), few reports have looked at how childhood obesity affects the lungs.

In this study, we measured lung function and body size in 6- to 12-year-old Navajo and Hopi children. Approximately 26% of these children were overweight and 16% were obese. In general, lung function was not as good in obese children compared to the non-obese children. We believe that this

limited function of the lungs may be a sign for the development of asthma among Navajo and Hopi children.

Source: Obesity and Pulmonary Function in Navajo and Hopi Children

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WHAT CAUSES DIABETES IN JAPANESE BRAZILIANS?

In our past research, we found that nearly 31 of 1,000 Japanese Brazilians have diabetes. In Japan, however, only 7 in every 1,000 persons have been found to have diabetes. Lifestyle changes, especially diet and physical activity, may be the reason for the higher rate of diabetes among the Japanese Brazilians.

In this current study, we wanted to find out if Japanese Brazilians carried autoantibodies that would suggest a slowly progressive form of type 1 diabetes. A total of 721 Japanese-Brazilians (386 men), ages 30 to 60 years, were examined. We measured glucose levels and metabolic syndrome factors according to WHO and NCEP-ATP III standards for Asians. We also measured antibodies to glutamic acid decarboxylase (GADab), thy-

roglobulin (TGab) and thyroperoxidase (TPOab).

Study participants had an average body mass index (BMI) of 25.2 ± 3.8 kg/m² but had higher waist circumference measurements, according to the Asian standards. We found that 31% had diabetes, 22% had impaired glucose tolerance, and 22% had impaired fasting glycemia. 53% of the subjects had metabolic syndrome. As far as autoimmunity is concerned, we found that GADab was positive in 4.72% of the subjects, which is similar to the rates found among Japanese.

It is likely that genetics plays a role in making some Japanese Brazilians more likely to be insulin resistant. When combined with lifestyle factors and living in an unfavorable environment, these individuals may tend to

have more body fat, especially around the waist, and may have several signs of metabolic syndrome.

Based on the data from our study, we conclude that autoimmunity does not contribute to the high rate of diabetes seen in Japanese Brazilians. Instead, the presence of metabolic syndrome may be more strongly linked to development of diabetes.

Source: Autoimmunity Does Not Contribute to the Highly Prevalent Glucose Metabolism Disturbances in a Japanese Brazilian Population

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PREECLAMPSIA AMONG PREGNANT WOMEN: HIGH BLOOD PRESSURE AND PROTEIN IN THE URINE

Preeclampsia is a disease that happens only to pregnant women. Pre-

eclampsia occurs when previously healthy pregnant women develop high

blood pressure and protein in their urine in later pregnancy. With this

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disease, blood vessels become stiff and less blood goes to the organs. In addition, blood becomes sticky. We don't know why some pregnant women suffer from this disease, and sometimes it is even difficult to tell who has this disease.

Hispanic women are least likely to have this disease in the United States, according to available research findings. But, could this be because Hispanic women have been under-diagnosed?

We tried to estimate how many Latino women get this disease in metropolitan Detroit, Michigan. We reviewed the medical delivery records of 559 Hispanic women from a Detroit hospital, and the prenatal medical records of 134 Hispanic women who received care from a health center affiliated with the hospital in southwest Detroit.

We looked for two indicators in the records that fit the preeclampsia di-

agnosis according to the National High Blood Pressure Education Working Group Report: the doctor's diagnosis during labor and delivery at the hospital, and hypertension and protein levels in urine from prenatal records. In order to diagnose a case of preeclampsia, pregnant women had to have the following: 1) blood pressure of 140 mm Hg systolic or higher, or 90 mm Hg diastolic or higher that occurs after 20 weeks of gestation in a woman with previously normal blood pressure (this condition must happen twice at least 6 hours apart); and 2) proteinuria, which is a condition where 0.3 grams of protein or higher are found in a 24-hour urine specimen.

In 1998, 20% of births (559) were to Hispanic women. Seven of the 559 Hispanic women (1%) who gave birth at the study hospital had preeclampsia or pregnancy-induced hypertension,

compared to 118 of the 2,241 non-Hispanics (5%). Hispanic women were much less likely to be diagnosed with the condition.

While the number of true cases is difficult to estimate from information obtained in the clinic, the proportion of documented preeclampsia or pregnancy-induced hypertension for Hispanic women is small compared to African American and non-Hispanic White women. Being Hispanic is considered a low risk for preeclampsia or pregnancy-induced hypertension in the clinical populations studied.

Source: Preeclampsia Among Hispanic Women in a Detroit Health System
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PATIENTS WITH DIABETES: USING BLOOD GLUCOSE SELF-MONITORING MAY HELP AVOID VISITS TO THE HOSPITAL

Patients with diabetes should know how to test their blood glucose levels (self-monitor) to find out their high and low blood sugar values. This information can help with the appropriate scheduling of food, activity and medication. Research has found that those who do not self-monitor their blood sugar levels are more likely to go to the hospital for diabetes-related complications. Self-monitoring of blood sugar is especially important for people with diabetes who are taking insulin or for those who experience fluctuations in their blood sugar levels. The American Diabetes Association recommends that persons with diabetes perform regular self-monitoring of blood sugar.

We reviewed several research studies to find out how often self-monitoring of

blood sugar occurred among different populations of patients with diabetes. Twenty-two studies were reviewed in our article; 12 of these studies had information about a single racial/ethnic minority group and 10 studies compared information between Whites and at least one racial/ethnic minority group. The studies were conducted in clinics and health-care facilities in different states or regions of the United States. The study also included national surveys, such as a phone survey among US adults.

We found that the use of self-monitoring of blood sugar levels was low, regardless of race/ethnicity. Rates for self-monitoring of blood sugar among Whites, African Americans, Asian Americans and American Indians

varied, from daily or weekly to just occasionally. One source of information showed that Hispanic populations performed self-monitoring of blood sugar less often than African Americans and Whites. Other studies showed that patients taking insulin performed self-monitoring of blood sugar more often than did those not taking insulin. Some studies found that patients said they did not self-monitor their blood sugar levels because of the cost of strips used in the meters and pain associated with testing.

Patients should be aware that insurance often covers testing supplies for blood sugar monitoring and that not all meters require testing on the finger but offer testing on other parts of the body where there might be less pain.

Although all health professionals agree that regular self-monitoring of blood sugar is important, low rates of self-monitoring in all groups in the United States, especially among racial/ethnic minorities, are a problem.

Healthcare providers should look more carefully at reasons why patients do not use self-monitoring of blood sugar.

Source: Racial and Ethnic Disparities in Self-Monitoring of Blood Glucose

Among US Adults: A Qualitative Review

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DO BLACK AND WHITE WOMEN THINK THE SAME ABOUT HOW RACE AFFECTS THEIR WEIGHT?

In our study, we looked at how White and Black women thought their race was connected to their weight. We conducted focus groups with 30 Black women and 30 White women with similar income and education levels. For those in the Black women's group, we asked the question "How does being a Black woman affect your weight?" Similarly, for those in the White women's group, we asked the question "How does being a White woman affect your weight?"

Results for Black Women

Women in the Black group had 48 answers to our question. They ranked the most important ideas. The number one way that being a Black woman affected their weight was how they prepared food. Traditional cooking meant using extra salt and high-fat meats, like ham hocks and fatback. In addition, fried chicken and fried fish were popular because they tasted good, were part of the family tradition, and were easily accessible at fast food restaurants.

Black women also said that making poor food choices and lack of knowing how to prepare healthy foods was a problem. For example, some women said that they were interested in cooking low-fat recipes but had too many responsibilities that kept them from preparing healthy meals (and they felt unsure if their families would accept the changes).

Black women also said that they worried about their unhealthy lifestyles. They said they knew that unhealthy eating and not enough exercise could lead to diseases and increased medical care cost. But, they said that feeling stressed about this (and other things in their life) made them overeat large amounts of unhealthy snack foods, often at bedtime.

Results for White Women

Women in the White groups gave 32 answers and also ranked them. The number one way that being a White woman affected their weight was having unreal expectations of the perfect body. Many said that they had negative feelings about their bodies and felt that social pressures, media images, and men's preferences prompted them to lower their weight.

White women said that they believed it was socially unacceptable for White women to be overweight, but it was acceptable for Black women and men. In addition, they said that society accepted overweight and unattractive men but not women. They also reported that White women were targets for plastic surgery and fitness equipment advertisements.

White women said that their perceptions and negative attitudes toward their body image were kept alive by their families, in particular their mothers. They believed that today's mothers continue the trend of giving unhealthy body expectations to their

young daughters. The White women felt a widespread cultural pressure to be thin.

Real-World Concerns

This study shows that Black and White women think differently about their weight and bodies. Black women often discussed food choices and health consequences, while the White women emphasized thinness and physical beauty. We believe that these different cultural views create a need for targeted programs that use a point of view that is most appropriate for the audience. For example, programs may want to focus on increasing knowledge of how to prepare tasty, healthy foods that appeal to the family for Black women while teaching White women to be more accepting of different body sizes.

Given the differences in body weights and perceptions among women in our society, we are realizing that one size does not fit all. Our study shows the uniqueness that women of different races face when dealing with their weight.

Source: Racial Influences Associated with Weight-Related Beliefs in African American and Caucasian Women

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BLACK-WHITE DIFFERENCES IN HYPERTENSION AMONG ADULT WOMEN AND MEN

Hypertension (high blood pressure) is a serious condition that can lead to heart disease, stroke, kidney disease, and premature death. Hypertension can also cause problems in pregnancy, sometimes even leading to death of the infant or mother. The chances of having hypertension increase with age and hypertension is often considered a disease of the elderly (>65 yrs old). We studied hypertension rates in a national survey of nonelderly US adults to find out the differences between Blacks and Whites and, men and women.

We found that young adult and middle-aged Blacks were as likely to have hypertension as Whites who were much older. We also found that the risk of developing hypertension increased at a faster rate for Blacks than Whites. This risk is especially high for Black women, who, after age 40, are more likely to have hypertension than Black men or than White men or women. We found that this health problem has

become worse for Black women in recent years.

What explains these very high hypertension rates among Black women? We found that obesity and poverty contributed to the high health risk, but they were not the major causes. Hypertension is a stress-related disease and given that Black women tend to face racial and sex disadvantages in US society, they may be exposed to higher levels of life stress than either Whites or Black men. Because this stress can accumulate throughout life, it may increase health risks for Black women at earlier ages. In short, stressful life experiences, as well as efforts to cope with them, can attack the body and cause health problems throughout life. We have called this process “weathering.” Given these possible causes for high levels of early hypertension among Black women, we believe that only changes in our society can significantly reduce this disturbing health disparity.

Since doctors often make judgments about risk, prevention, and treatment based on a patient’s age, it is important that doctors recognize the higher risk of hypertension for Blacks, and especially for Black women. Our study shows that young Black adults, who may be considered at low risk for hypertension because of their ages, may, in fact, be at risk levels similar to much older Whites. Hypertension screening of Blacks should begin at young ages. Early diagnosis and management is important to addressing racial and sex differences in hypertension and to preventing cardiovascular disease, early death, and poor maternal and infant health.

Source: Black-White Differences in Age Trajectories of Hypertension Prevalence Among Adult Women and Men, 1999–2002

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SIMPLE STEPS TO CONTROL CONGESTIVE HEART FAILURE

Congestive heart failure (CHF) is a chronic disease that affects African Americans more than other ethnic groups. Stress, depression, and environmental factors have been linked to heart failure. Transcendental Meditation (TM) is a widely used stress-reduction program and has been shown to have benefits for health and well being. This simple meditation technique can be practiced for 15–20 minutes twice daily while sitting comfortably with eyes closed. It can be learned easily regardless of age, educational background, or

culture. The technique is effortless and requires no belief or any change in lifestyle or diet.

The purpose of our study was to find out the effectiveness of a TM stress reduction program for African Americans with CHF. This is the first study to explore the effectiveness of TM as a prevention tool in African Americans with CHF.

We recruited 23 African Americans, older than 55 years, recently hospitalized with CHF. Participants were randomized to either a TM or a health education (HE) group. We measured

how the patients performed on several tests, including the six-minute walk test (6-MWT), quality of well being tests, stress and depression tests, and we also measured the patients’ levels of brain natriuretic peptide and cortisol.

We found that patients using TM had greater improvement on the walking test, quality of life tests, and depression tests, compared to those in the HE group. On the depression scale, the TM group showed a greater decrease after six months compared to the HE group. Also, those in the TM group

made fewer trips back to the hospital than those in the HE group over the six-month followup.

We concluded that TM can be effective in improving the quality of life and functional capacity of African American CHF patients. We plan to

further prove this conclusion by conducting a large, multi-center study with long-term followup.

Source: Effectiveness of Transcendental Meditation on Functional Capacity and Quality of Life of African Americans

with Congestive Heart Failure: A Randomized Control Study

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HEALTH IN A HISPANIC INNER-CITY COMMUNITY: HEART DISEASE RISK FACTORS FOUND AT HIGH RATES

We often do not have good information about the health status of minorities living in the United States. We do know that, in general, minorities suffer from higher rates of disease, especially those related to high blood pressure, high cholesterol, diet, and exercise. Minority groups also often suffer from mental health disorders, like clinical depression or anxiety, at higher rates than non-minority groups. Finding ways to screen for these conditions and provide appropriate medical and mental health services faces several barriers.

To help better understand the health needs and health status of Hispanics living in large cities, we conducted community-based outreach and health screening in an economically and medically under-served community of the Bronx, New York. By partnering with a local community center, we were able to advertise the dates and times of the

health screening through the center, and also held the health screening at the center. More than 200 local residents came to the screening over a 4-day period.

The majority of those who attended the screening said they were of Hispanic descent; 40% said they were born in Puerto Rico, 17% in the Dominican Republic, 5% in Mexico, and 15% in another Latino country. Not surprisingly, 65% of our sample reported Spanish as the primary language spoken at home.

Among this sample of Hispanics, only 21% had high systolic blood pressure (one of two measures used to identify high blood pressure). This rate is lower than national Latino samples. In contrast, the rate of high total cholesterol (above 200 mm/dL) was more than twice that found among a national sample of Hispanics. More than 26% reported being current ciga-

rette smokers; 25% had glucose levels that would be classified as meeting the definition for having diabetes; 22% were classified as being either borderline clinically depressed, moderately depressed, or severely depressed.

Information from this sample of inner-city, low-income Hispanics suggests that current efforts in the areas of health education, outreach, and service provision are not reaching this segment of the population. New programs must be created and used to improve the health of minorities in living in large cities.

Source: The New York City Community Outreach Study: Biomedical and Mental Health Status Among a Community Sample of Urban Hispanics

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BREAST-CONSERVING SURGERY AND RADIATION THERAPY: DO THE TWO GO HAND-IN-HAND AS RECOMMENDED?

For many decades, mastectomy (a surgical procedure removing the whole breast that has a tumor and its surrounding tissues) was the solution for women with early-stage breast cancer. By the middle 1980s, breast-conserving surgery (a surgical procedure removing the tumor while preserving

the breast) was shown to offer equal survival benefit to mastectomy in large studies in the United States and around the world.

Based on these studies, the National Institutes of Health and many medical societies recommended breast-conserving surgery for women with early-stage

breast cancer in the early 1990s. By the mid-1990s, studies showed that nearly 50% of women with early-stage breast cancer received breast-conserving surgery.

According to treatment guidelines, it has been recommended that if women with breast cancer were treated with

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breast-conserving surgery, they also should receive radiation therapy after surgery to reduce the chance of the disease returning. It has not been known if radiation therapy was used widely for all individuals, regardless of their race or ethnicity, and if the treatment practices changed over time.

We studied 89,110 women who were diagnosed with first-ever early-stage breast cancer at age 20 or older between 1992 and 2002 in 12 geographic areas across the United States. The women had no history of other cancers and received breast-conserving surgery. Of these women, 81,577

(91.5%) were White and 7,533 (8.5%) were African American.

From 1992 to 2002, the percentage of women receiving breast-conserving surgery without radiation therapy increased from 10.8% to 19.8% for White women and from 13.6% to 27.7% for African Americans. When taking into account the patient and tumor characteristics, year of diagnosis, and geographic areas, African American women were 23% less likely than White women to receive the recommended therapy.

We concluded that, although current guidelines recommend that women with early-stage breast cancer who are

treated with breast-conserving surgery should have radiation therapy, the percentage of women who did not receive this treatment continued to increase over the 10-year period from 1992 to 2002. The gap between African American and White women has continued from 1992 to 2002 without signs of narrowing.

Source: Racial Disparities and Trends in Radiation Therapy After Breast-Conserving Surgery for Early-Stage Breast Cancer in Women, 1992 to 2002
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METABOLIC SYNDROME IS NOT ALIKE ACROSS RACE AND ETHNICITY

An estimated 12 million US adults, ages 40 and older, have diagnosed and undiagnosed diabetes. Rates of diabetes differ among individuals of this age group in different ethnic groups. It is estimated that 17.8% of African Americans have diabetes, 17.1% of Mexican Americans have diabetes, and 10% of Whites have diabetes.

Most people with diabetes have metabolic syndrome, which is defined as having three or more of these conditions: obesity, especially around the waist, high blood pressure, elevated triglycerides, low levels of HDL cholesterol, and high levels of fasting glucose.

While rates of metabolic syndrome do not differ among diabetics of these three racial/ethnic groups, there are differences in the rates of the individual conditions that make up metabolic syndrome.

High blood pressure is more often seen among African Americans with diabetes (73.1%) as compared to Whites (58.6%) and Mexican Americans (50.8%). However, Whites have lower levels of HDL cholesterol and higher rates of obesity around the waist than African Americans.

These findings raise questions about the current definition of the metabolic

syndrome and point to the need to pay attention to each metabolic syndrome condition in designing intervention programs to reduce risk. We seek additional research to better define the characteristics of metabolic syndrome in different racial and ethnic groups.

Source: Prevalence of the Metabolic Syndrome Among US Middle-Aged and Older Adults With and Without Diabetes — A Preliminary Analysis of the NHANES 1999–2002 Data
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A HIGHER CALCIUM INTAKE MAY BE IMPORTANT IN WEIGHT LOSS DIETS

Obesity is common in countries around the world and is linked with diseases such as diabetes, heart disease, and high blood pressure. In South Africa, more Black women than White women are obese.

Many South Africans do not understand the importance of diet in

preventing weight gain or in helping in weight loss. Most scientists agree that a weight-loss diet should be low in fat. Other studies have found that calcium in the diet may help to protect against body fat gain. It seems that high-calcium diets help the body use fat for energy. The traditional diet of Black

women in South Africa is low in calcium. The aim of this study was to find out how calcium in the diet was linked to body fat in healthy Black and White South African women.

For this study, 102 Black and 106 White South African female volunteers, between the ages of 20 and 50 years,

participated. There were equal numbers of overweight and normal-weight women. We took measurements for weight, height, percentage of body fat, and blood pressure. Blood samples were taken for concentration of insulin. The women completed questionnaires to report the food they ate.

White women had the highest calcium intakes (whether from supplements or the diet) and were the leanest, had the lowest percentage body fat, and had the lowest blood sugar levels, compared to the Black women. White women ate two times more calcium than the Black women of the study. At the same time, the Black women ate less fat than the White women.

Calcium in the diet may slow or stop fats from being absorbed in the gastrointestinal tract. A Canadian study showed that the diet should contain at

least 600 mg of calcium per day to have an effect on body fat. Only 25% of the Black women had a daily calcium intake above 600 mg/day, compared to 83% of the White women in this study.

In addition to how body fat and calcium is related, we looked at rates of insulin, a hormone that controls whether fats from food will be used for energy or stored as fat. In White women, those with lower calcium intakes had higher blood insulin concentrations, which might promote storage of fat from foods as body fat.

We do not have a clear explanation for the differences seen between Black and White women. However, in this study, a higher calcium intake than those of the Black women seems to be necessary for an effect on body fat and blood insulin levels.

We recommend that low-fat dairy food supplement could be a simple way to prevent obesity among Black South African women. To reach the suggested daily intake of 600 mg calcium, individuals should drink two cups (16 oz) of low-fat milk (fresh or sour) or yogurt daily. Taking additional low-fat dairy foods will ensure a higher calcium intake, that is closer to recommended levels and may be more helpful in preventing obesity.

Source: An Inverse Association Between Calcium and Adiposity in Women with High Fat and Calcium Intakes

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CHILDHOOD OBESITY AMONG HEAD START CHILDREN IN SOUTHEASTERN MINNESOTA

The number of children considered overweight or at-risk for overweight has increased dramatically in the United States since 1970. Childhood obesity is linked with significant health concerns such as diabetes and high blood pressure, and the social pressure of being overweight may have long-term effect on self-esteem.

Research has shown that adults and children from low-income and minority families are more likely to be overweight than others. We examined obesity among children in a Minnesota Head Start program, a government program geared toward school readiness among children 2–5 years of age. We found that the percentage of overweight children did not change from 1998 to 2001. The percentage of children who were considered at-risk for overweight

doubled during that time period. We also found that older children and children of Mexican or Mexican American families were more likely to be overweight compared to children in Head Start programs in Massachusetts.

In southeastern Minnesota, children from non-English speaking family background (or English as a second language background) were more likely to be obese. During the study period, the percentage of children at-risk for overweight increased more than 15-fold in the families with English as a second language, and children from these families were more likely to gain weight than were other children. The category of at-risk for overweight will likely lead to childhood obesity, as we also found the non-English speaking background to be

a risk factor for overweight regardless of sex, age, and ethnic background.

Our study's findings are similar to other studies reporting that environmental factors such as a child's family background may have a critical impact on childhood obesity. Our study also serves as a reminder that education on childhood obesity and prevention programming should be incorporated into a school readiness program such as Head Start by both governmental agencies and healthcare providers.

Source: Childhood Obesity Among Head Start Enrollees in Southeastern Minnesota: Prevalence and Risk Factors

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UNDERSTANDING HOW EXERCISE CAN REDUCE HIGH BLOOD PRESSURE

Hypertension, also known as high blood pressure, is a common condition in the United States and is one of the most frequent reasons for visiting a doctor's office. Currently, 60 million American adults have been diagnosed with hypertension.

More African American women (45%) have hypertension compared to White women (25%) and Mexican American women (29%). Recently, healthcare experts created a new class for resting blood pressure levels called prehypertension. This class is defined as a systolic reading, which is the top number of a blood pressure measurement, between 120–139 mm Hg or a diastolic reading, which is the bottom number of a blood pressure measurement, between 80–89 mm Hg.

This level of blood pressure was formerly considered “normal” blood pressure; however, scientists now link this level with a greater risk of developing full-scale hypertension and other diseases such as diabetes, kidney failure, and heart disease. Patients who fall into the prehypertension class should have frequent blood pressure checkups by a doctor and improve their lifestyle choices by adopting a healthy diet and exercising regularly.

For years, exercise has been considered an effective way to reduce high

blood pressure. However, the “one size fits all” approach when recommending an exercise program to treat hypertension does not work well.

In our study, 12 prehypertensive African American women between the ages of 30–45 years were exposed to an exercise program for 10 weeks. They exercised moderately 3 days per week for 30 minutes per day. The results showed that this amount of exercise was enough to improve the women's fitness level, but was not enough to cause a reduction in resting blood pressure.

Several things may help to explain our findings. First, research has shown that ethnicity is a major indicator for disease and its severity. This is demonstrated by the fact that African Americans develop hypertension earlier in life, have more severe forms of the disease, and have significantly higher death rates from hypertension than Whites do. Secondly, many researchers have shown that exercise is most effective in reducing blood pressure when combined with healthy diets, particularly in populations like African Americans who are sensitive to salt. It is important to note that we did not advise, monitor or restrict our participants' eating habits during the course of this study.

Finally, obesity has been shown to be a major contributor to hypertension and often reduces the effects of exercise and other preventive interventions. The majority of participants in our study were considered overweight according to the current body mass index (BMI), and no reduction in weight was achieved as a result of the exercise.

We conclude that, in order for exercise to be effective in reducing blood pressure as well as improving an individual's fitness level, a number of factors must be considered. Patients, doctors, and other healthcare professionals should take into account ethnicity, diet, fitness level, other conditions such as obesity, and current disease status when developing exercise programs to treat or prevent illnesses. Most importantly, one size does not fit all when designing an exercise program to prevent or treat a disease, such as hypertension.

Source: Aerobic Exercise Improves Cardiorespiratory Fitness But Does Not Reduce Blood Pressure in Prehypertensive African American Women

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