

# California Teachers Study Digest **A+**

## Spring is in the air!

*Keep reading for updates on new CTS research efforts*

Over the past decade, research has begun to uncover the extent to which our environment—both the natural environment and the human-made environment that we build—affects individual and population health.



In addition to ongoing study research on risk factors for cancer and other health conditions, the California Teachers Study has received new grant funding to investigate how the environment affects health in different capacities, including study participants' quality of sleep, risk of stroke, and risk of certain precancerous conditions.

Our team is excited to share more with you about these new projects and study findings!

## Research on hypertension in pregnancy

### Do hypertension disorders of pregnancy affect future healthcare needs?

Previous research has found that women who have hypertension (elevated blood pressure) during their pregnancy can be at higher risk for cardiovascular disease. However, there is a lack of

information available on whether hypertension diagnosed during pregnancy might also affect future use of healthcare services, specifically emergency department visits and hospitalizations for cardiovascular issues.

This study, led by Dr. Forgive Avorgbedor, will use California Teachers Study data to examine the relationship between hypertension disorders of pregnancy and future hospitalizations and emergency department visits. You can read more about her work by [clicking here](#).

## What else are we studying?

### **Do extreme weather events affect air pollution levels and risk of stroke?**

Extreme weather events like drought and wildfires have become more common throughout California. In addition to the acute devastation caused by these extreme weather events, there may also be long-term health effects.

Dr. Sophia Wang, a member of the California Teachers Study Steering Committee, has been awarded a new grant to examine the effect that extreme weather events have on air pollution, and whether air pollution is related to risk of stroke and other cardiovascular diseases among study participants.

To learn more about this important research, [visit the California Teachers Study website here](#).

## A new CTS research partnership

### **Identifying risk factors for MGUS & Multiple Myeloma**

Monoclonal gammopathy of undetermined significance (MGUS) occurs when an individual has elevated levels of an abnormal immunoglobulin protein. MGUS is a precursor to multiple myeloma, which is a cancer of the plasma cells. This means that multiple myeloma is always preceded by MGUS. However, not everyone with MGUS will progress to multiple myeloma; in fact, most people with MGUS will not progress to multiple myeloma.

Research to date has shown that the incidence of MGUS is higher among Black individuals than among individuals of European ancestry. However, the reasons for these disparities are not fully understood.

Under a new grant awarded by the National Cancer Institute, the California Teachers Study and the Black Women's Health Study will work together to examine how the built environment (the human-made environment in which people live, work, and play), socioeconomic status, and race affect risk of developing MGUS.

As study results are published, they will be made available on our [Study Findings](#) page. We look forward to sharing more with you about this important research!

## Study Findings: Environmental influences on sleep

### How do environmental factors affect quality of sleep?

Prior research has demonstrated that insufficient sleep—getting less than the recommended 7 hours of sleep a night—is associated with adverse health outcomes. A recent California Teachers Study publication used participant questionnaire data to evaluate whether environmental exposures like light at night (e.g., from traffic and streetlights), noise pollution, greenspace (e.g., parks, forestry), and air pollution were associated with self-reported sleep outcomes.

The researchers found that artificial light at night and air pollution were associated with shorter sleep duration; noise was associated with longer sleep latency (the amount of time it takes to fall asleep); and living nearby to greenspace was associated with increased sleep duration and decreased sleep latency.

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**Our mailing address is:**

California Teachers Study  
Biomedical Research Center, Cubicle 2016.04  
1218 S. Fifth Ave.  
Monrovia, California 91016