

Riggs, D. W., Yeager, R. A., & Bhatnagar, A. (2018). Defining the human envirome: An omics approach for assessing the environmental risk of cardiovascular disease. *Circulation Research*, 122(12), 1259-1275. <https://doi.org/10.1161/CIRCRESAHA.117.311230>

## **Definitions**

- **Envirome:** The totality of environmental exposures affecting health.
- **Omics:** Fields of study in biology ending with -omics, such as genomics, proteomics, or metabolomics, that focus on the collective characterization and quantification of pools of biological molecules.
- **Cardiovascular Disease (CVD):** A class of diseases that involve the heart or blood vessels.
- **Atherosclerosis:** A disease in which plaque builds up inside your arteries.

## **Key Findings**

- Environmental factors significantly influence cardiovascular disease (CVD) risk.
- Social, natural, and personal environments all play a role in CVD.
- Understanding these environments can lead to better prevention strategies.

## **Introduction**

The study explores how different environmental factors, collectively called the envirome, affect cardiovascular health. It highlights the importance of considering social, natural, and personal environments in understanding and preventing cardiovascular disease (CVD).

## **Main Content**

### **Background**

Cardiovascular disease (CVD) results from interactions between genetics and the environment. While some forms of CVD are hereditary, most common types, like atherosclerosis, are influenced more by environmental factors.

### **Methods**

- **Environmental Assessment:** Researchers categorized environmental factors into natural, social, and personal domains.
- **Data Analysis:** The study reviewed existing data to understand how these factors collectively impact CVD risk.

### **Results**

- **Natural Environment:** Factors like sunlight, altitude, and biodiversity can affect heart health.
- **Social Environment:** Includes the built environment, pollution, and social networks. Poor social environments can increase CVD risk.
- **Personal Environment:** Consists of lifestyle choices such as diet, exercise, and smoking. Healthy personal environments can lower CVD risk.

## **Conclusion**

The study concludes that to reduce the risk of cardiovascular disease, it is essential to consider the full range of environmental influences. By understanding how natural, social, and personal environments interact, we can develop more effective strategies to prevent and manage CVD. This holistic approach can lead to better public health policies and interventions.

Word Count: 290

This summary was generated July 2024 by ChatGPT4.o and has not been reviewed for accuracy. This summary should not be relied on to guide health-related behavior and should not be reported in news media as established information. Please refer to the original journal publication listed in the hyperlink on the first page to validate representations made here. This summary will be updated once an expert review is complete.