



Indoor Air and Climate Readiness

Climate change, which is caused by natural factors and human activities, refers to any significant change in measures of climate, such as temperature, precipitation or wind, lasting for an extended period. These changes impact the air quality indoors. Poor indoor air quality can lead to an increased risk of asthma and other respiratory and health problems.



Buildings will act to shelter populations from some of the impacts of climate change. But what kind of environments will buildings offer under climate change conditions? Buildings will be altered to reduce their contributions to climate change by making them more energy efficient and to help protect us from some of the changes associated with climate change. During new construction or remodeling, it is essential to ensure that measures are taken to improve and maintain indoor air quality.



Alterations will also be made to the building stock to help shelter people from climate change, mitigating or reducing some impacts of climate change by filtering the outside air for particulates generated by wildfires, or adding moisture control features for extreme weather.



It is clear that as climate change impacts increase, it will become even more important to adapt indoor environments appropriately to maintain healthy indoor air quality.

How Could Climate Change Impact Indoor Air?

Indoor environments can be significantly impacted by climate changes such as large increases or decreases in rainfall and snowfall, extremely high or low temperatures, and changes in the severity of storms. Increased rainfall may lead to increased risk of flooding and dampness indoors, and growth of mold indoors. Decreased rainfall or droughts may lead to wildfires that will create particulate air pollution that can seep indoors. Extreme temperatures and storms may drive people to stay indoors to protect themselves from the elements, and increase their use of heating, ventilation and air condition (HVAC) systems.



Weatherizing Your Home to Save Energy While Maintaining Indoor Air Quality

It is essential to maintain proper ventilation to maintain healthy indoor environments. For example, proper ventilation is essential for moisture control and to dilute pollutants generated indoors. Weatherization or retrofitting may include:

- installing storm windows
- weather stripping
- caulking
- insulating your home



It should also include an assessment of the ventilation required, and adjustment to the ventilation if needed, to accommodate weatherization changes in the home.

You can weatherize to save energy and maintain good indoor air quality. Get tips on weatherization, and sealing and insulating from the EPA's Ventilation for Homes Web site at www.epa.gov/iaq/homes/hip-ventilation.



Find out more about indoor air quality by visiting www.epa.gov/iaq.