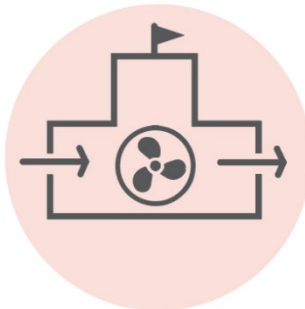


Proper Ventilation Guidelines



Broadly defined, ventilation is a method of controlling the environment with air flow. For indoor environments, providing some degree of ventilation (supply and return/exhaust) to building occupants is necessary. Issues of comfort (temperature, humidity, air movement) can quickly arise in occupied indoor environments if there is a lack of ventilation. As such, inadequate or improper ventilation is the cause of about half of all indoor air quality (IAQ) problems in nonindustrial workplaces.

Building ventilation systems are complex and varied but typically involve drawing in fresh outdoor air through an air handling unit, where the air is filtered to remove particles (e.g. dirt, dust, spores). Subsequently, the filtered air is tempered (heated or cooled), conditioned, and mixed with some proportion of indoor air. The mixed air is then distributed throughout the indoor environment through ductwork and some portion of the indoor air is exhausted outside. The quality of indoor air may deteriorate when one or more of these processes is inadequate. For example, carbon dioxide (a gas that is produced when people breathe), may accumulate in building spaces if sufficient amounts of outdoor air are not brought into and distributed throughout the building. Assuring an adequate supply of fresh outdoor air is the most effective engineering control for prevention of indoor air quality issues. Consequently, assuring the ventilation system is in proper working order will likely alleviate most indoor air quality issues. If you are experiencing indoor air quality issues, lack of ventilation is a likely culprit and reviewing the following items may help you to fix the issue.



- Are the air-vents closed?
- Are supply or return grilles, radiators, or baseboards blocked (e.g. by large furniture) or plugged with debris?
- If the air is too hot, are there adjacent rooms where an open window could be causing a cool draft over the thermostat?
- Are there any partitions or obstructions that block fresh-air flow?
- Using room fans improves ventilation efficiency by increasing air mixing and dilution of any pollutants in the room.

If there is an issue with the ventilation system, contact Facilities Solutions Center (413)-545-6401 (or online at <https://www.umass.edu/facilities/requests>) and give them all of the pertinent information.