

An Indoor Air Quality (IAQ) investigation project was conducted in 13 classrooms selected from six Florida schools. Teachers and students in seven of the 13 classrooms complained of headaches, stuffed sinuses, sore throats and lethargy.

The study found:

- In classrooms with dust mites and dust mite allergens in the carpet, no airborne mite allergens were found even with air samples measured two feet above the floor level over a continuous eight-hour stretch.
- The levels of airborne mold spores varied from room to room, but were lower indoors than outdoors. In Florida with high levels of mold spores outside, there is no way to keep mold spores from being airborne inside. Under these conditions, carpet should not be blamed for the inside airborne mold spores.
- Levels of mold spores on the surfaces of vinyl tile were equal in numbers and mold types on carpet surfaces.
- The research found that carpet does not compromise IAQ.

The study found no airborne dust mite allergens in the test classrooms and the airborne mold spores inside were lower than outside levels. Therefore, these allergens could not account for the reported symptoms. Allergy symptoms and other health complaints were found to be associated with the classrooms with elevated humidity. In general, classroom temperatures clustered around 72° to 80°F, and relative humidity levels ranged from 54 to 87 percent.

In rooms that had complaints of allergy symptoms, the relative humidity was above 72 percent and had visible mold growth on ceilings and musty odors.

In rooms that had no complaints of allergy symptoms, the relative humidity was 45 to 69 percent with no visible mold growth and no disagreeable odors.

Many schools turn off air conditioning systems during the night. Intermittent running of the air conditioning causes condensation in the ducts and classrooms. Teachers in some problem classrooms reported water streaming down the windows in the morning. This is caused by moisture condensing out of warm air when air conditioning systems are turned back on in the morning after being off all night. Condensation in ducts and damp ceiling tiles caused by roof leaks provide enough moisture for mold growth which probably caused health complaints from occupants using the rooms.