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Home Inspection Service



Air Quality Results

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
Good 0-50	It's a great day to be active outside.	
Moderate 51-100	Some people who may be unusually sensitive to particle pollution.	Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier. Everyone else: It's a good day to be active outside.
Unhealthy for Sensitive Groups 101-150	Sensitive groups include people with heart or lung disease, older adults, children and teenagers.	Sensitive groups: Reduce prolonged or heavy exertion. It's OK to be active outside, but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath. People with asthma should follow their asthma action plans and keep quick relief medicine handy. If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
Unhealthy 151 to 200	Everyone	Sensitive groups: Avoid prolonged or heavy exertion. Move activities indoors or reschedule to a time when the air quality is better. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during all outdoor activities.
Very Unhealthy 201-300	Everyone	Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.
Hazardous 301-500	Everyone	Everyone: Avoid all physical activity outdoors. Sensitive groups: Remain indoors and keep activity levels low. Follow tips for keeping particle levels low indoors.

PM _{2.5} range (ug/m ³)	PM ₁₀ range (ug/m ³)	AQI Category	Description
<12.1	<55	Good	Air quality is satisfactory, and air pollution poses little or no risk.
12.1 ≤ x < 35.5	55 ≤ x < 155	Moderate	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually
35.5 ≤ x < 55.5	155 ≤ x < 255	Unhealthy for Sensitive Groups	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
55.5 ≤ x < 150.5	255 ≤ x < 355	Unhealthy	Some members of the general public may experience health effects; members of sensitive groups may
150.5 ≤ x < 250.5	355 ≤ x < 425	Very Unhealthy	Health alert: The risk of health effects is increased for everyone.
250.5 ≤ x < 500.5	425 ≤ x < 605	Hazardous	Health warning of emergency conditions: everyone is more likely to be affected.

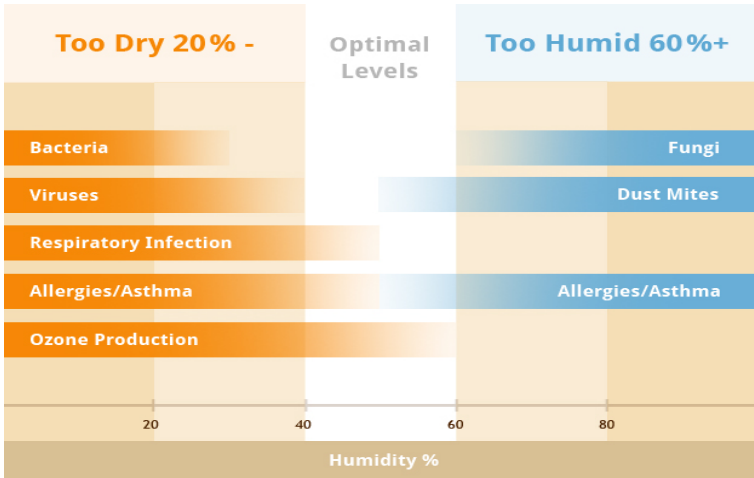
Health Parameter Guide		
HCHO (mg/m ³)	TVOC (mg/m ³)	Levels of Health Concern
0-0.1	0-0.5	Healthy
>0.1	>0.5	Unhealthy

Particulate Matter PM 2.5 refers to particles smaller than 2.5 microns. Particulate Matter PM 10 refers to particles smaller than 10 Microns, these larger particles include dust, pollen and mold spores. these smaller particles include combustion, particles, organic compounds and metals. Some indoor sources of fine particles are tobacco smoke, cleaning and fuel burning.

Particulate Matter PM 10 refers to particles smaller than 10 Microns, these larger particles include dust, pollen and mold spores.

Formaldehyde (HCHO) is a common air pollutant and it is among the 25 most produced chemicals in the world. People are usually in contact with HCHO in some way or the other. Either by inhaling the substance, in contact with skin or eyes. Common sources of formaldehyde are pressed wood products such as plywood and glues and adhesives.

Total Volatile Organic Compounds (TVOC)
Volatile organic compounds, sometimes referred to as VOCs, are organic compounds that easily become vapors or gases. Along with carbon, they contain elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur or nitrogen.



How can you improve indoor air quality?

There is no single prescribed method for improving indoor air quality. The approach you'll take may depend on a number of factors, including your individual building, the outdoor environment, and the extent of the problem. Sometimes a temporary indoor air quality problem is created simply by a one-off, out-of-the-ordinary activity taking place inside a room or building, such as an overcrowded meeting area. In those cases, a short-term fix may be all that's needed, such as opening a window or bringing in a fan. But more complex issues—identified by consistently unacceptable air quality monitoring results—will require a different tack. Depending on the issue you're experiencing, one of the three tactics below may be appropriate. Keep in mind that the right approach to addressing the issue isn't always clear at the outset; therefore, it may be helpful to deploy more sensors to get a better understanding of the problem before investing time and resources in attempting to solve it.

1. Control The Source

Controlling the source of a pollutant is usually the most effective (and cost-effective) approach to improving air quality when a particular source can be identified. Some examples: Installing a "low-VOC" carpet can help reduce your VOC level. Moving contaminant-producing equipment to a better ventilated space can help dilute the contaminant. Covering formaldehyde-emitting materials and supplies helps contain the pollutant.

2. Improve Ventilation

Increasing the amount of outdoor air coming indoors is another effective approach (though it doesn't work in every case). A building's ventilation system is made up of ducts and fans that carry stale air outdoors and mix recycled return air with outside air and bring it indoors. Problems sometimes arise with mechanical ventilation units that lead to indoor air quality problems. For example, contaminants may collect within the air diffusers and grills, introducing pollutants into the environment. Or if the outdoor air intake is located near a source of moisture or other outdoor pollutant, it may serve as a pathway to carry the contaminants inside. Or the ventilation system may not be working as well as it should—if debris is blocking the outdoor air intake, for instance, or the filters are contaminated or poorly maintained. A thorough check of your ventilation system will reveal if one of the above named problems exists and if it's contributing to the pollutant problem you're trying to address.

3. Clean The Air

When it comes to commercial buildings, air cleaning tactics are usually most effective when combined with either one of the other strategies listed above—except in cases where the source of pollution is outside the building. Most air cleaning approaches are designed to remove particulates. For example, some cleaning systems collect pollutant particles from the air using electrostatic force, called electrostatic precipitation. (Charged particles are collected by a strong electric field generated between oppositely-charged electrodes.) Others trap and remove particles using a filter (called particulate filtration).