

# **FAQ:** **DUCT CLEANING AND YOUR INDOOR AIR QUALITY**



**ARISTA**



## Introduction

What's more important than the air you breathe? It affects your day-to-day comfort as well as your short and long-term health.

In recent years, there has been an increasing focus on indoor air quality. When you live and/or work in a large city like New York, you know that the air quality outside is a concern: you can see the smog hanging over the city, and smell it as you walk down the street. Yet you may be surprised to learn that the air quality indoors can be considerably worse. The EPA states that indoor air contains 2 to 5 times more toxins than outdoor air. To make matters worse, the average person spends 90 percent of his or her time indoors, making us even more susceptible to health effects from poor indoor air.

Maintaining the HVAC systems that heat and cool our homes and workplaces, especially cleaning the ductwork, is very important to ensuring a healthy indoor air environment.

We know you have questions, so we have put together this helpful guide to address the common questions people ask us every day about indoor air quality and duct cleaning.

## Top 10 Frequently Asked Questions About Indoor Air Quality and Duct Cleaning

### **1. What are the impacts of poor indoor air quality?**

It's important to understand that while some impacts of poor indoor air quality are noticed immediately, in many cases there are long-term health effects.

Chances are, if you're reading this, that you may have noticed some of the more immediate impacts of poor indoor air quality. These can include respiratory problems, eye, nose and throat irritation, headaches, dizziness, nausea and fatigue. Air quality problems can also cause comfort issues that are not necessarily detrimental to your health, but unpleasant nonetheless, such as odors, high humidity and stuffy air.

The possible long term health impacts from poor indoor air quality can be even more serious. The EPA states that health effects including respiratory illnesses, heart disease and cancer can occur years after exposure (or after prolonged exposure) even if you don't experience symptoms at the time. That's why it's so important to mitigate indoor air quality problems as soon as you suspect you may have them.



## 2. What are the causes of poor indoor air quality?

There are many different toxins that contribute to poor indoor air quality, and most problems are caused by a combination of sources. These are some of the most common:

**Outdoor pollutants.** As previously mentioned, all sorts of contaminants get into your space from outside: smoke, smog, vehicle and industrial exhaust, radon and even pollen.

**VOCs or “Volatile organic compounds.”** These substances release harmful gases into the air at room temperature. VOCs are found in many household products including cleaners, paints and finishes, building materials and carpet, dry cleaning, gasoline, pesticides and cigarette smoke.

**Inadequate ventilation.** If your HVAC system is not properly designed, you may be trapping pollutants inside your home or work space. Outside air is required for proper circulation.

**Humidity issues.** Uncontrolled humidity leads to the growth of mold, mildew, fungi and disease-causing bacteria. Sources of humidity can include leaky plumbing, poorly maintained HVAC, or lack of ventilation in humid areas such as bathrooms and kitchens.

**Dust and pet dander.** A typical 6-room home can generate as much as 40 pounds of dust in a single year. If you have recently completed a building or renovation project, the quantities of dust generated can be much higher.

**Cooking appliances, fireplaces and wood burning stoves.** These can produce carbon monoxide as well as other deadly toxins.

No matter what the cause of toxins in your space, they accumulate in your HVAC system and especially your ductwork. While you should do everything you can to remove the sources of contaminants, some of them are unavoidable. The next best thing you can do is regularly clean your ducts and your HVAC equipment.

## 3. Do I need air quality testing? When is it recommended?

If you are experiencing health issues or smelling musty odors that don't go away after duct cleaning has been done, you may have a bigger problem on your hands. You may have mold and/or other contaminants in other areas besides your ductwork. The next step is to invest in air quality testing.





Your duct cleaning specialist may also recommend air quality testing if mold was suspected due to odors but not seen during the inspection and cleaning. If mold is found in your space and you need mold remediation, air quality testing will be included in that process.

#### **4. How do dirty ducts contribute to air quality problems?**

The air in your home or workplace travels through its HVAC system and ductwork about 5 to 7 times each day. If your ducts have not been cleaned in a while, pollutants in the air get trapped in the walls of your ducts and build up over time. Things get worse when mold and mildew begin to grow in the ducts and are released into the air in your space.

That's not all: beyond airborne pollutants, other things can make their way into ductwork, including insects and vermin. It's not unusual to find nests from pests hiding out in ductwork. When that happens, the droppings create more contaminants that get into the air you breathe.

#### **5. Will duct cleaning make my HVAC equipment work better?**

In many cases, it will. Dirty ductwork also impairs the functioning of your HVAC system. A dirty system doesn't function as efficiently, and must work harder and run longer to heat and cool the air. After a while, you'll notice the difference:

- The system can't reach set temperature
- There are hot and cold areas in your space
- Your energy bills are climbing
- You experience more breakdowns and repair issues

Eventually, your HVAC equipment will fail years before its expected life span. Keeping ducts clean helps your system function as it should.

#### **6. How can I tell when my ductwork needs cleaning?**

Short of climbing inside the ducts to see for yourself, there are some signs to look for, including:

- excessive dust coming from registers
- increasing quantities of dust building up on furniture and other surfaces (especially following a renovation project)
- lingering, unexplained odors (especially musty ones)
- uncontrolled humidity and even the appearance of mold growth on walls and ceilings



The only way to know for sure if your ducts need cleaning is by having them professionally inspected. Fortunately, most reputable service providers will inspect your ducts for free and provide you with an estimate if cleaning is recommended.

### **7. How often do ducts need to be cleaned?**

Unfortunately, there isn't a straightforward answer to this question. Unlike preventative maintenance that's typically recommended 2-4 times per year, the need for duct cleaning services varies widely depending on your environment, the contaminants present in your home or commercial space, and the age and condition of your HVAC system.

For example, a residence with a new, high-efficiency HVAC system in a location with a low concentration of contaminants might never need duct cleaning, as long as filters are regularly changed and the system is regularly maintained. At the other extreme, a business dealing with fabric and a very high concentration of fibers in the air might need duct cleaning several times per year (or more).

That's why duct cleaning typically is not included as part of a preventative maintenance contract. Cleaning ductwork is a specialized process, and it doesn't necessarily need to be done with the same frequency as preventative maintenance. However, you can ask your HVAC maintenance company to inspect your ducts and let you know if cleaning is needed.

### **8. How can I tell if a duct cleaning service provider is qualified?**

Look for a duct cleaning service provider that's a member of the National Duct Cleaners Association (NADCA), the organization that has developed the standards for the ductwork inspection, cleaning and maintenance industry. Companies with NADCA-certified Air Systems Cleaning Specialists follow the NADCA standards for equipment, processes, and cleaners, so you can be sure the job will be done correctly.

In addition, make sure the duct cleaning service provider you choose has worker's compensation and general liability insurance, to protect you in case of an accident. General liability insurance protects your property if the contractor or technician causes any damage to your facility through their action or negligence. Worker's compensation protects you in case a contractor's employee is injured on your property; if the contractor doesn't have it, you may be responsible for the medical bills.





Finally, ask about the provider's expertise with mold and biological contamination remediation. If mold growth is found in your ductwork, you want to know that it will be removed correctly and safely.

### **9. What does the duct cleaning process involve?**

Duct cleaning requires specialized tools and products as well as training in the correct techniques, but it's a fairly straightforward process. Here are the steps to restoring your ducts to a clean and pristine condition:

**STEP 1: Clean grilles and registers** Your duct cleaning specialist will start by taking down all accessible registers and grilles and cleaning them with EPA-approved cleaning agents. If necessary, they may be able to install access doors or plates to provide access to the ductwork.

**STEP 2: Clean ductwork interiors** All accessible interior surfaces of the ductwork will be cleaned using approved equipment and direct source removal techniques (such as HEPA vacuums).

**GOOD TO KNOW:** NADCA standards are followed for ductwork made from non-porous materials (such as sheet metal). NAIMA standards are used for lined or insulated ducts. Ask your provider (if you don't know) which type of ducts you have and be sure they are using the correct techniques and materials.

**STEP 3: Replace grilles** After the completion of the cleaning processes, your duct cleaning service provider will replace your grilles and registers and properly seal all ductwork access hatches.

In some cases, particularly if your HVAC system has not been serviced in a while, your provider may recommend other HVAC maintenance services, such as changing filters, cleaning coils, and servicing blower motors and fans. That's because dirty HVAC equipment may compound the problems caused by dirty ductwork.

### **10. Are chemicals used for duct cleaning?**

Neither the EPA nor NADCA recommend the use of chemicals to clean ductwork unless there is a specific need. In fact, no fungicides or products for sanitizing or disinfecting ductwork have been approved by the EPA for use in ductwork.

Source removal is the recommended method, which involves physically removing contaminants. In most cases, chemicals are not needed. However, cleaning agents can help the process, and approved cleaners (soaps, detergents or degreasers), sealants, coatings and deodorizers may be used. If your service provider does intend to use an EPA-approved chemical, they are required to provide you with a Material Safety Data Sheet (MSDS) that explains the risks and uses of the product as well as handling and emergency procedures.

If certain chemicals are used in the process of cleaning your ducts and/or other HVAC components, you may be required to vacate the building during the procedure and for 2 to 8 hours after the process is completed.

We hope you've found this guide to be a handy reference to the process of duct cleaning and the facts about indoor air quality.



## ABOUT ARISTA

Arista has the experience to service and maintain any HVAC system throughout its lifecycle. Across the New York City metro area, we're recognized as one of the region's most respected and referred HVAC experts. We're also duct cleaning experts with NADCA certification. When you purchase a preventive maintenance service agreement or invest in duct cleaning services from Arista, you're backed by an industry leader that has earned its reputation through decades of trustworthy business conduct and quality service.



### Peace of mind at a fair price

Your account is managed by a senior Arista technician and backed by an expert staff of over 170 highly trained professionals. Arista boasts a comprehensive program of continuous staff training and professional development on state-of-the-art practices and processes.

### Arista clients also enjoy these benefits:

- Quick-to-respond, accessible workforce and a fleet of 100+ vehicles
- 24/7 emergency standby service
- 30,000 sq. ft. corporate warehouse facility stocked with over 55,000 parts
- Industry recognition as the only New York state company to earn both the prestigious MSCA STAR and GreenStar designations
- LEED Accredited Professionals to assist in making smarter HVAC choices

### Questions? Call Arista today.

We invite you to call us for a quote or consultation regarding an equipment purchase, maintenance agreement or general service needs. We believe you'll agree that hearing what we have to say will be one of the best decisions you make. Reach an Arista HVAC specialist today at 718-937-4001 or email [info@aristair.com](mailto:info@aristair.com).



