

# Accommodating people with chemical sensitivities at work



**It is often possible to accommodate people with chemical sensitivities, so they can continue a productive work life. But there are no one-size-fits all solutions.**

*Keywords: chemical sensitivity, environmental sensitivity, MCS, employer, work, accommodation, rehabilitation, indoor air quality*

## **Chemical sensitivity**

A growing number of people are affected by minute amounts of chemicals, such as fragrances, cleaners, solvents, pesticides, fumes from carpets, furniture, electronics and much else found in offices and factories.

People with mild cases of chemical sensitivity may simply get mild headaches after being at work for a few hours.

## 2 MCS workplace accommodation

Severe cases can be so strongly affected their work performance is severely impacted.

The symptoms vary with the person, though the common ones involve headaches, dizziness, difficulty concentrating, irritated sinuses and feeling tired – i.e. somewhat like having a flu, but without the fever.

The symptoms typically lessen or clear up when going outdoors for a while.

A variant of chemical sensitivity is "sick building syndrome" if the symptoms happen in just one particular building.

The typical person with MCS is a woman older than thirty years, but it can also strike men and at any age. It affects people of all races, social classes and educational levels (Katerndahl, 2012).

People working in jobs where they are exposed to chemical fumes are more prone, such as industrial workers, flight attendants, hairdressers and office workers in poorly ventilated buildings (Martini, 2013).

### **The workplace challenge**

Chemical sensitivity is still poorly understood and thus controversial. There is no standard treatment and no reliable cure. The most effective mitigations are to remove the triggers.

When people with chemical sensitivities have their needs for better air quality accommodated, they can function better and be more productive in the workplace. It may also raise the productivity of the other employees (see later). Most countries have laws requiring employers to accommodate employees with disabilities (some do not apply to very small businesses). The rules typically require "reasonable" measures that do not cause "undue hardship" for the employer.

In some cases employers are unwilling or unable to accommodate the employee with MCS, especially if the disability is severe.

Many people with severe chemical sensitivity are forced to change jobs, become underemployed or go on disability (Kreutzer, 1999; Berg, 2008; Evans, 2010; Soderholm, 2011).

## Getting Started

The Canadian Human Rights Commission suggests:

*...developing and enforcing fragrance free and chemical avoidance policies, undertaking educational programs to increase voluntary compliance with such policies, minimizing chemical use and purchasing less toxic products, and notifying employees and clients in advance of construction, re-modeling and cleaning activities. (Canadian Human Rights Commission, 2014.)*

The Centers for Disease Control, a U.S. government agency, has its own internal "Indoor Environmental Quality Policy" developed to protect the health of their own staff, including "workers with chemical sensitivities." The policy is publicly available and can serve as a template for other workplaces (CDC, 2009).

The Labor Institute offers a workbook that is helpful for getting started (Labor Institute, 1993).

Communication between the treating physician and the employer may help getting the ball rolling. Sometimes a physician specializing in occupational health can be helpful (Martini, 2013). As MCS is still controversial, it is best to find a specialist who will focus on the employees' needs and not the controversy.

To be successful, it is best if policy changes and modifications are tailored to the individual, especially if there is just one person with chemical sensitivity. The disabled person needs to be involved in the decisions.

There are many options to consider, and some experimentation may be necessary.

There are no "one size fits all" accommodations, as it is individual which chemical agents are the worst triggers, and at what levels.

## Improving the ventilation

How much to ventilate is a compromise between cost and employee comfort. The ventilation standards for the United States are designed for healthy people, with an air quality intended to satisfy 80% of the building occupants (ASHRAE, 2004). That means it is "acceptable" when up to 20% of the employees find the air quality objectionable.

The US federal workplace standards (OSHA/NIOSH) are also designed solely for healthy people, and not sensitive people (ASHRAE, 2004).

OSHA standards are frequently insufficient to fully protect even healthy workers. A vivid account of why is available from a person who was the head of OSHA for seven years (Michaels, 2020).



*The air intake is usually placed next to the mechanical room, which is often at ground level near a loading dock or traffic, so exhaust fumes are sucked into the building.*

Improving the ventilation system can benefit the entire staff and raise their productivity, so it actually is a net financial gain (MacNaughton, 2015; Allen, 2015; Bako-Biro, 2004; Milton, 2000). The total annual cost of poor indoor air quality in the United States is estimated at 100 billion dollars, due to reduced productivity (Wallace, 2001).

However, improving the ventilation is not always sufficient (Menzies, 1993). A ventilation engineer may be able to help, though in the United States such specialists tend to be beholden to industry interests (Ladou, 2007).

No amount of ventilation can adequately mitigate major or nearby sources of pollution. If an employee with MCS sits near a highly fragranced coworker, even sitting outdoors may not be enough ventilation.

Be aware that the ventilation system itself can be a problem, as it may harbor dust, mold, microbes and fumes from the heating and cooling systems.

Providing a window that can be opened, next to the person with chemical sensitivities, may be an excellent solution. If there are no operable windows, it may be possible to replace a fixed window with an operable one.

A poorly designed ventilation system may not provide fresh air where it is needed. The location of the registers is important for a good distribution of the air in each room.

Rooms filled with cubicle partitions are notorious for creating pockets of stagnant air. It may help to install a low-noise fan to bring air into a person's cubicle, especially from above.

Another option, though probably less effective, is to install exhaust vents in the ceiling (similar to those used in household bathrooms).

Providing clean air directly from the outside is generally better than improving the suction of inside air, as that tends to draw polluted air from the rest of the room and other parts of the building.

### **Air purifiers**

Air purifiers have electric fans that pull air through some sort of filter. They are not magical devices that turn bad air into pristine air. It is limited what they can do and they are rarely a "solution" in themselves. They can only help once all major sources of pollution have been removed. The biggest and best air purifier in the world will not be enough if someone in the room took a bath in a vat of fragrances that morning.

An air purifier is only effective in a rather small room, with just a few people in it. The small desktop air cleaners are simply too puny.

Filters that just remove particles from the air are rarely enough. Look for a filter that can actually remove fumes, such as those with zeolite or activated charcoal. There must literally be pounds (kilos) of filter material to have a real effect.



*Air purifiers can help, but are rarely enough by themselves. They need to be of good quality, like this one from Austin Air.*

A quality air purifier will likely cost hundreds of dollars and may have to be ordered from specialty suppliers. What they sell at the local store is unlikely to be sufficient, they are better suited for pollen and dust.

Beware that independent ratings of air filters, such as by *Consumer Reports*, rarely consider removal of chemical fumes. They tend to focus on particles, such as from pollen and smoke. The best filters for removing chemical fumes are often considered a niche product and not even mentioned.

### **Restroom access**

At least one restroom must be designated as fragrance free. That means:

- No "air freshener"
- No scented toilet paper
- No scented soap
- No scented cleaning agents

"Air fresheners" are a misnomer, they do not actually freshen the air. What they do is add chemical fumes that overpower the senses, so people no longer notice objectionable odors. To a person with MCS, they are a steep barrier to using the restroom.

There are no "safe" versions of these products, regardless of any marketing claims. Even essential oils labeled as "natural" or "organic" contain unhealthy chemicals (Nematollahi, 2018).

Any sort of fragrance dispenser must be totally removed. Instructing the custodial staff to just not refill an existing dispenser will eventually be forgotten and the dispenser refilled (we've been there).

If employees complain about any offensive natural odors in the restroom, consider improving the ventilation. Scented restrooms were not common in the United States until the 1990s. They are not a necessity.

It is best with a restroom that accommodates just one person at a time. This avoids the situation where someone highly fragranced blocks access for someone sensitized. Such a single-occupancy room can then be unisex and perhaps accommodate people with other disabilities.

Consider installing a sign stating it is a fragrance-free bathroom, which is provided for the health and safety of those negatively impacted by fragrances. That can be an educational tool to promote acceptance of further measures.

### **Fragrance policy**

People with MCS consistently rate fragrances as one of their worst problems (Steinemann, 2016, 2018; Larsson, 2009).

Fragrances are largely unregulated and contain many toxic chemicals (Steinemann, 2009; Grenville, 2017).

Restricting fragrances is thus very similar to restricting smoking, which also is an unnecessary habit that is unhealthy to others.

There are many ways fragrances can be brought into the workplace, such as:

- Perfume and cologne
- Makeup
- Shampoo

- Skin creams
- Hair spray and mousse
- Clothes with scented laundry detergent
- Clothes with fabric softener
- Desktop fragrance dispensers
- Scented candles
- Plug-in fragrance emitters

It is important to understand that any fragrance is a problem, regardless of how it gets into a room. We know of one employer (a hospital) which instituted a fragrance policy for the clinical staff, but it did not include scented laundry detergent. That is the same as banning cigarettes, but not cigars. Somehow they considered restricting laundry products to be more invasive to their staff's personal lives.

A no-fragrance staff policy can provide a major improvement to the air quality. A pioneer was the U.S. Centers for Disease Control and Prevention, which enacted such a staff policy in 2009 (CDC, 2009).

It states in part:

*Fragrance is not appropriate for a professional work environment, and the use of some products with fragrance may be detrimental to the health of workers with chemical sensitivities, allergies, asthma and chronic headaches/migraines.*

The Canadian Centre for Occupational Health and Safety also provides guidelines for making the workplace fragrance free (CCOHS, 2020).

Consider a gradual approach, starting with banning scented candles and all other kinds of fragrance emitters. Then move on to personal care and laundry products.

Such policies may be met with employee resistance, though they may also be welcomed by many employees who have mild symptoms or simply find the smells unpleasant. Surveys show that 30 to 45 percent of the general population do not like fragrances (Steinemann, 2016; Berg, 2008; Johansson, 2005).

Fragrances are noxious fumes the majority imposes upon a large minority, just as cigarette smokers used to.





*Most forms of personal care products and cosmetics can be a problem to other people in the same room.*

Education of the entire staff is paramount for acceptance and compliance. It must be stressed that this is a medical issue and not merely that someone doesn't like the smell of fragrances (CCOHS, 2020). It may also help to point out that limiting fragrances is to the benefit of everybody's health, and not just one individual (Vierstra, 2007). A good educational source is the book *The Case Against Fragrance*, by Kate Grenville.

Unfortunately, advertising bombards everyone every day with the false message that fragrances are desirable and essential products. This makes it much harder to restrict their use.

There are several lines of less-scented personal care and laundry products available. It could be helpful to provide the staff with a list of locally available products, especially major brands from major stores.

Be aware that products marked "unscented" may contain fragrances that are solely intended to "mask" the unpleasant odor of the product itself.

Essential oils are not an acceptable alternative. Even those products marketed as "natural" or "organic" contain nasty solvents (Nematollahi, 2018).

Plan for how to handle non-compliant employees, such as sending them home to clean up, placing them in a separate room for the day or other measures. Think of it as if the person arrived in a bathing suit or other unacceptable attire. The disabled person should not be the "fragrance police." That will quickly poison the atmosphere and likely result in harassment.

When hiring new people, make sure to tell them about the policy up front. If an applicant is highly fragranced at the interview, and seems resistant to the policy, perhaps another candidate is a better choice.

Employers are naturally reluctant to set such a policy. Several employees have tried to get the courts to force the employer. In the past that was not successful (Vierstra, 2007), but more recent attempts have been successful (McBride, 2010).

For the most affected, a fragrance policy is a great help but may not be enough. Fragrances will still find their way into the building on people's clothes if they have visited a public restroom on the way, or they use fragrance dispensers at home or in the car. Or if they share a washing machine with other people who use fabric softeners and scented detergent.

Dry cleaned clothes can also be a problem.

### **Handling fragranced visitors**

Overly fragranced customers/visitors are a difficult problem to handle with grace. They are not likely to understand and adhere to a no-fragrance policy.

In one government office, the person with MCS was one of multiple staffers who saw walk-in clients. They solved the problem by letting the receptionist screen the clients, and direct the pungent ones to the staffers who did not have MCS.

### **Smoking policy**

A smoking policy is essential for good indoor air quality. Several countries ban smoking in the workplace.

A smoking policy should also restrict people from smoking around building exits, near air intakes and operable windows (especially windows used by people with MCS).

Be aware that when a smoker comes into the building after smoking outdoors, a surprising amount of smoke will be attached to the clothes and also exhaled. Toxic gases, such as benzene, acetone and toluene will be emitted from a smoker's body

for hours after the last smoke (Sheu, 2020). It may not be possible for someone with MCS to share an office with a smoker.

### **Use of respirator**

It is not reasonable to make the employee use a respirator all day. It makes the employee stand out and it is hard on the lungs to use for more than a couple of hours at a time.

Respirators typically need to be aired out for a long time before use, so that would have to be organized to ensure a steady supply when they wear out.

### **Separation**

Sometimes the employee simply has to be separated from the normal work room and/or some of the other employees.

It may be sufficient to move the employee's work station well away from the other people, but still in the same large room.

Providing a private room is even better, especially if it has not been renovated for a long time and the window can be opened.

A private room could be constructed by installing a floor-to-ceiling partition with a door. However, the materials used can then become a problem, especially drywall and paint. Safer materials are metal tracks and glass walls.

Working from home should be considered, perhaps with a scheduled weekly day at the office for meetings, making photocopies, etc. The covid-19 epidemic made distance working mainstream, though people with MCS have done it for many years before that (Evans, 2010).

It may be an option for the employee to work during hours where there are few or no other employees around. With few people in the building, the overall air quality should be better, and there'll be fewer encounters with overly scented employees.

### **Meetings**

Personal meetings can be particularly difficult with a group of people sitting around a table.

First consider to what extent the employee really needs to participate in meetings. Some may actually be a waste of time anyway.

Having the employee participate in a meeting via speaker phone or videoconference system is doable, but tends to leave the employee sidelined and missing out on the non-verbal cues in the room. The meeting leader must be aware of this problem and step in when needed. It helps to spell out this issue to the in-person attendees. There should also be a rule that nobody in the room discusses the issues “on the way out of the room,” after the remote participant has signed off.

An alternative is that all participants use a videoconferencing system, even if they are in the same building. This creates a level playing field and can work quite well (Economist, 2020). It may also allow participants to do productive work when they are not actively participating in the meeting.

In one case story, they used an oversized meeting room with a powerful ventilation system and then arranged the chairs and tables so the employee was well away from the more fragrant participants (Evans, 2010: ch 2 & 9).

### **Reassignment**

The employee may have to be reassigned to a different job. If the job involves working with chemicals, such as paint, epoxies or strong cleaning agents, it may not be possible to modify the job itself. But be aware that if the reassignment is in effect a demotion, that is likely to be illegal under the law.

Sometimes an outdoor position will be appropriate. We know of people with MCS who switched to work as a park ranger or as the attendant of a recycling station.

### **Harassment**

Bullying by supervisors and co-workers are a common problem for people with chemical sensitivities and can make work hell (EI wellspring, 2020; Soderholm, 2011; Lipson, 2004; Rovai, 2004; McCormick, 2001; Gibson, 1996).

Harassment can take many forms – both subtle and not so subtle. Some employees have successfully sued their employer on this issue (EI wellspring, 2020).

Bullying of employees with disabilities is unfortunately a common problem that is not limited to environmental disabilities (Fevre, 2013).

### **Housekeeping**

Many companies have janitors clean on a daily or weekly basis. The cleaning agents are usually harsh chemicals that can leave a residue.

One MCS patient describes how he had to go to a doctors' office once a week to get an allergy shot. He noticed he got dizzy in the waiting room every time – except on Mondays. A sympathetic nurse figured out why: housekeeping came in every morning before the clinic opened – except on Monday mornings (Evans, 2010: ch 5).

If the cleaning agents seem to cause problems, it may be possible to get housekeeping to switch to less-toxic products. That may also be a long-term health benefit for the janitors. But better products may cost more – and beware of "green-washed" cleaning products that aren't so healthy after all.

Another option is to see if the cleaning can be done in the evening rather than in the morning, so there is more time for the residues to offgas.

It may not be necessary to clean the room the sensitive person works in, or at least not as often. Perhaps do a trial of some weeks without cleaning the room to see if it helps. Or the person with MCS takes over the cleaning of the room and thus has control over what is used.

### **Pest control**

Using Integrated Pest Management will dramatically reduce the use of pesticides, as this method focuses on preventing and trapping pests instead of simply spraying on a schedule.

Advertisers in the United States have trained people to demand spraying as soon as they see a single insect or spider. Try to overcome this.

If spraying is unavoidable, notify the employee and try to schedule the spraying for after hours, especially on a Friday night or Saturday, so the fumes can dissipate somewhat before the next workday. The employee may not be able to return for a period of time.

### **Office electronics**

Desktop computers, copy machines, printers and other electronics emit chemical fumes from their circuit boards, plastic cabinets and other parts. This is especially the case when they are turned on and warm.

In one experiment a group of workers used computers that were just three months old, and then computers that were much older. The fumes from the three-months-old computers clearly lowered the productivity of the workers, who were all healthy and did not have MCS (Bako-Biro, 2004).

When the electronics needs to be upgraded, consider "burning it in" for some months in a different room, or let someone else use it first while it offgasses.

Some equipment, especially those with cooling fans, will emit low levels of fumes for years. In some cases people have built boxes around the device to contain the fumes, and vent them to a filter or outdoors (Lyle, 2000).

Printers and copy machines of all kinds emit troublesome chemicals as part of the printing process. Water-based ink-jets are less toxic, but slower and more expensive to use.

Perhaps the machines can be moved to another room, preferably one that is vented separately so the fumes are not distributed via the air channels.

### **Furniture**

Much furniture is problematic, especially those with pressboard and upholstery. This includes desks, chairs, shelving and room dividers.

Some furniture is made of wood that needs furniture polish, which is noxious.

Furniture made of glass and steel should be much more tolerable.

### **Lighting**

Some people with MCS are troubled by fluorescent and LED lighting. Try incandescent lights instead, such as traditional bulbs, halogen bulbs or full-spectrum incandescent bulbs.

Where incandescent lights are no longer available, try various LED bulbs. Those marked as "warm light" tend to be better.

Natural light through a window is often better than artificial light. In the Scandinavian countries the building codes require natural light in every room.

### **Remodeling and maintenance**

Any kind of remodeling, maintenance or new furniture can cause problems for people with MCS. Depending on the person's level of sensitivity and the type of change, the problem may persist for just a day, or may take weeks or months to offgas the offending chemicals.

Discuss the project with the disabled person to get an idea of what may be needed, but also be aware that he or she may not know in advance when it will be safe again.

For some, a new carpet is safe in a well-ventilated room after just a couple of weeks. For others it can take more than a year. It may also depend on the brand of carpet.

There are many options to consider. Here are some suggestions:

See if the maintenance can be done somewhere else, such as on equipment that can be moved out of the room.



*Carpets are particularly troublesome. They cover a large surface and give off fumes for a long time.*

Consider if there are optional ways to do the maintenance that may not result in noxious fumes. There are less-toxic paints and other building materials available, though they are not guaranteed to be any more tolerable.

Instead of carpets, put in vinyl, linoleum, hardwood or tile. They are easier to clean, last much longer and are a lot less problematic than carpets, but their hard surfaces reflect noise and they cost more.

If carpeting is unavoidable, research what less-toxic brands are available and install with tack strips instead of glue. Avoid any pad underneath.

For a small project, the disabled person could work from home or in another room for the day.

Larger projects could be done on a Friday after hours and the ventilation system be set to run all weekend with 100% fresh air.

Increased ventilation may be needed for an extended period of time.

The project may be scheduled for the beginning of the disabled person's vacation or before a major holiday.

The disabled person could work elsewhere for a while.

If the new furniture is not tolerable, it could be offgassed elsewhere for some months.

### **Outdoor maintenance**

Major outdoor maintenance projects can be a problem and should be communicated in advance. This especially includes repaving access roads and parking areas, tarring the roof, painting the facade, etc.

The fumes can enter the building through the ventilation system and also be a problem when the disabled person needs to enter or exit the building.

### **Dress codes, uniforms**

Company dress codes can be a challenge that needs to be resolved. People with MCS often have great trouble wearing makeup, clothes made of certain materials or clothes commercially laundered.

A work uniform made of synthetic material (especially polyester) and cleaned by a laundry service may produce all sorts of symptoms (McNeely, 2017).

Clothes that have been drycleaned may not be wearable, even after days of airing out.

Most cosmetics contain an amazing amount of chemicals known to be toxic.



In most cases non-toxic solutions are available to these problems, but they tend to cost more and it can take much time and effort to find something workable.

Sometimes the dress code simply has to be relaxed. We have seen an example where the Safeway grocery chain allowed members of a religious sect to wear their own clothing with just a name tag, instead of the regular company uniform. Then it can also be done to accommodate a disability.

### **Green buildings**

There are various certifications that a building is “green,” such as LEED. They emphasize energy efficiency, and sometimes less-toxic materials.

These schemes have limited value, as a building can be certified based on other features than healthy materials.

### **Time is important**

A timely response to an employee's request for accommodation is essential. MCS can get progressively worse over time, especially when exposed to chemical triggers on a daily basis. Delaying action may result in the employee becoming too sick to work at all and having to apply for disability status.

### **Cost of accommodation**

The cost of accommodating an employee is usually low. Sometimes it is zero. In some cases it saves money.

Increasing ventilation may raise the energy cost, but it may actually be a boon if the staff becomes more productive when they feel better (Allen, 2015; MacNaughton, 2015).

### **For the employee**

If you are an employee seeking accommodation of your disability, consider these suggestions:

- If there is an Independent Living Center in your area, talk to them. They can help you write a request for accommodation, and much else.
- Always be friendly and respectful of those around you. That will make it more likely they will help. Yes, we know that can be very difficult when their choices harm you, but do it anyway.

- Negotiate rather than demand. Upset people will find ways to make your life difficult.
- Be constructive about what you need. You are the expert on what makes *you* sick.
- Provide printouts about MCS so your boss can see it is not just something you say. But limit the amount.
- If your boss is not enthusiastic, see if your company has a disability coordinator of sorts.

### **Disclosing your disability**

Disclosing your disability is a major step. Once taken, you can't take it back. MCS carries a stigma, there are awful things about it on the internet and popular media. People may treat you in insulting ways they didn't before and some may start bullying you.

For those reasons, many with the illness choose not to disclose it, unless they are forced to. Consider what benefits there are to disclosing your disability versus the risks.

Consider telling only your boss, and perhaps a trusted office-friend. Then ask them for confidentiality.

Some people say they have asthma instead. Asthma can sometimes be triggered by fragrances, smoke and other air pollution.

If you do disclose, be prepared to explain what MCS is. Be brief. Be prepared to be met with ignorant tropes.

Timing is important. Don't wait until you're at war with the rest of the office, then you will certainly not be believed.

### **More information**

For more articles about environmental illness in the workplace, go to [www.eiwellspring.org/workplace.html](http://www.eiwellspring.org/workplace.html)

For information about MCS in general, go to [www.eiwellspring.org/intromenu.html](http://www.eiwellspring.org/intromenu.html).

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