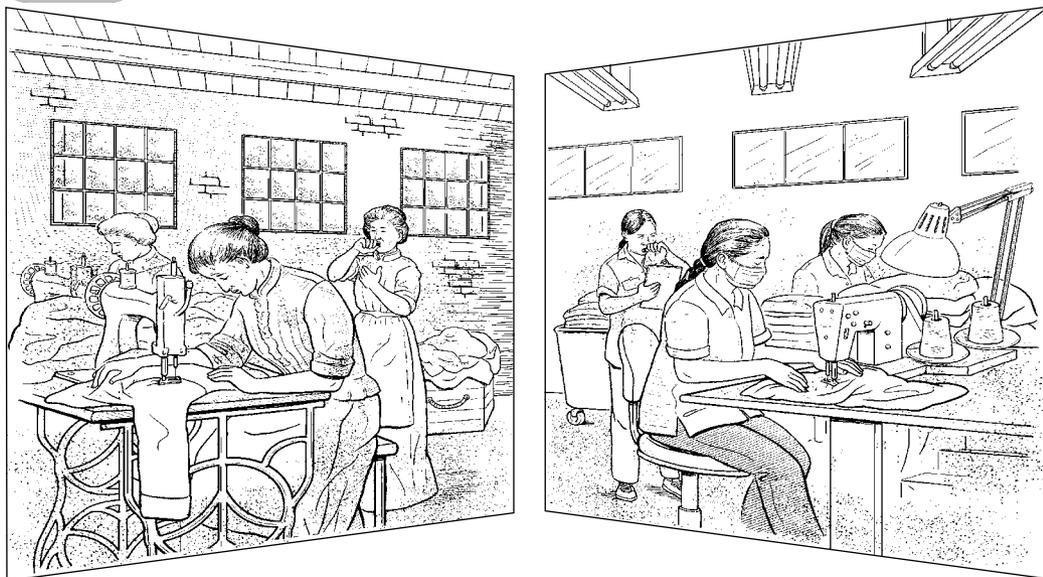


## 12

## Dust



**After so many improvements, why is there still dust in the factory?**

Grinding, sanding, packing, sewing, handling, and cutting metal, plastic, fabric, leather, and other materials produces a lot of dust. Because it is so small, dust can easily go into your nose and mouth and onto your skin. And it can travel with you to your home in your clothing, hair, shoes, and skin.

Preventing dust from being produced is the best way of ensuring it does not pose any harm. Removing dust as it is produced is also good. Dust becomes a danger when it accumulates in the air and on equipment.

Some signs that there is too much dust in the factory are:

- Workers wheeze or have difficulty breathing.
- Workers cough, sneeze, and blow their noses often.
- The mucus in workers' noses is the color of shop dust.
- Workers' hair, face, and clothes are full of dust.
- The floor, equipment, lights, windows, or walls are covered with dust.
- The air in the factory is hazy.

### Yolanda's blue face

Yolanda worked in a jeans factory in Piedras Negras, Mexico. Every day, workers went home covered in blue jean dust. Their paper masks did little and the ceiling fan only moved dust around. Yolanda wondered, "If we're covered with dust on the outside, what do we look like inside?"

At a union meeting, Yolanda agreed to work 1 day without wiping dust off her face to show how bad the problem was. By lunch, she was completely covered with blue fuzz. With other workers, Yolanda went to the manager. Yolanda's blue face embarrassed the manager.



The manager agreed to ask the boss to install exhaust vents. The boss was unhappy, but knew if the inspectors found out he would get in trouble. He agreed to add one vent a week. When he did not, the women had to pressure him again. But finally, all the machines had extractors.

## Dangers from dust

The dust in factory air is mostly fine bits of the material workers use to make products. Factory dust can also include soot from burning fuels and from hot or burned materials. Dust often contains chemicals used in the manufacture of the materials.

The most common health problems caused by dust are breathing problems. Some dusts irritate your nose and lungs or cause allergies and asthma. Other dusts pass through your nose and can harm your lungs. Cotton dust, very common in garment factories, can cause a very dangerous lung disease called byssinosis (see pages 97 to 98).

Workers whose lungs are irritated by dust are much more likely to get sick from tuberculosis (see chapter 31).

When dust makes breathing difficult, it puts an added strain on the heart. Dusts also can irritate your eyes and cause skin rashes.

### Dusts can explode!

I worked in the polishing workshop of the Foxconn factory. Our job was to polish the aluminum backs of iPads for Apple. The factory ran 24 hours a day and all of us worked overtime every day. We ended our shifts covered completely in aluminum dust: our hair, our hands, inside our shirts and shoes, everything was grey.

Early one morning there was a huge explosion in the polishing area. Everybody was screaming and running. We didn't know what happened, or what had exploded. Many people were injured, and 2 people died. The factory closed for a few days. They said it was so they could investigate. When it reopened, they told us one of the extractors was not taking out all the dust. But we knew the problem was not just one pipe — there was always too much dust! There had to be several extractors not working, not just one. The truth is they let all the dust accumulate until it exploded.

A few months later, the polishing area exploded at a different factory also making iPads. It was the same problem. After that, Apple said they had fixed the ventilation systems at all their suppliers and there would be no more explosions. We will see if that is true. We will see if more workers are killed in explosions, or if they will be saved only to have nightmares about explosions like I do.

## Protect workers from dust

The best way to protect workers from breathing dust is to remove dust immediately from the source and to keep it out of the air.

### Use ventilation

A good ventilation system pulls dusty air away from the worker and out of the factory, and brings in fresh, clean air. Workers breathe less dust, and less dust settles on equipment and other surfaces. To learn more about different types of ventilation, see chapter 17.



A local extractor removes the dust as it is created.

### Clean up the dust

Cleaning on a regular schedule will prevent dust from collecting on floors and equipment. Cleaning should include hard-to-reach places, such as overhead lights, fan blades, and high windows. Regular cleaning removes dust that has settled so it does not get stirred up again.

Use a wet rag or mop, or a vacuum cleaner designed for dust. If you have only brooms for cleaning, first sprinkle water on the floor, and then sweep gently.

Do not use compressed air or blowers to clear dust or debris from work surfaces, machines, floors, or clothing. It just blows the dust back into the air to be breathed in by workers. Compressed air can also send debris flying into workers' faces and eyes, causing injuries.



Cleaning should not add to the dust problem by stirring up the dust again.

## Wear face masks for dust

A dust mask can prevent some dust from going into your nose and mouth. But it will not protect you from chemical fumes or vapors in the air. See chapter 18: Personal protective equipment, for more information on dust masks and respirators.



Make sure the mask fits you well around your face.