

## Air quality – a health issue

The air pollution problem in Shanghai and other major cities is a major health concern affecting pregnant women, growing children and the elderly. The most hazardous components are very small, nano-sized particles from combustion of fossil fuel/wood. These particles will activate the immune system leading to oxidative stress. Extensive research has shown that fine particles affect us wherever we are. Indoor factors, such as moisture and molds are common and will add to the risk.

Daycares with numerous young children attending are known for their high viral infection rates influencing quality of life for the child and family, health costs and productivity. In a daycare center, the child's immune system has to handle respirable particles generated by activity as well as those generated by the surrounding environment and as a consequence the ability to manage an infection may be reduced. Indoor air quality requires attention because this is where we spend most of our time and it is the only environment we can control.



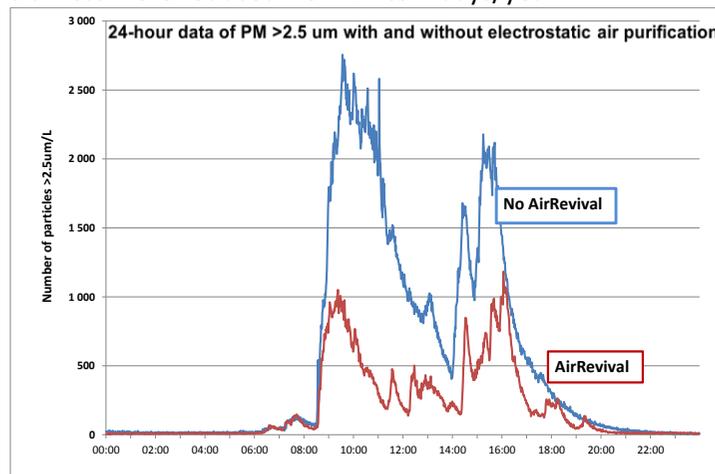
An AirRevival unit attached on a window in a preschool. Note the accumulation of particle, easily wiped off from the glass surface.

## AirRevival-Electrostatic air cleaning

The AirRevival technology creates a negatively charged electrostatic field in the room by releasing electrons through a carbon fiber emitting technology.

These electrons will pass through the polluted air pulling the fine particles with them on their way back to the positively charged window. AirRevival has been developed to handle the fine and the nano-sized ultra-fine particles causing most harm. One small window mounted unit has been shown to be capable purifying 96 000 liters of air from ultra-fine particles per hour. Some of the electrons will attract an oxygen molecule and thereby increase the oxidative capacity of the air. This acts with the normal vapor and hydrogen peroxide is generated. We use hydrogen peroxide as part of our own defense to kill microorganisms. With AirRevival you and your child will be less exposed to these harmful particles

Swedish researchers have documented healthier children in a pre-school equipped with AirRevival. Those particles generated by the activity indoors decreased by 60% and the sickness were reduced from 14 to 7 days/year.



The graph depicts how the concentration of particles >2.5 microns per liter of air is varying throughout the day with and without AirRevival in operation. Note that the high levels no longer exist! AirRevival is an expert in handling fine particles where the levels may decrease by 90%.

## Safe and ozone free

AirRevival does not emit ozone. Furthermore, the static electricity created by the device is without known side effects. The system complies with all European safety standards and the scientific basis of its innovative and scientifically proven technology has been recognized by the European Union.

Electrostatic fields are unique in their ability to capture nano-sized particles. When these particles are generated by the diesel engine, they will have free metal ions on their surface. Unfortunately, the body does not have a good defense mechanism for this. The particles will penetrate our bodies, including the brain, causing an inflammatory reaction. Today millions of people around the world are affected with reduced fetal growth, high blood pressure, infections, asthma, stroke, heart infarcts and cancer related to air pollution.

However, the body is capable of recovering once the air is purified.



Even modern buildings are frequently affected by the growth of molds and fungi, particularly in humid climates. These microorganisms grow on surfaces, produce spores that become airborne and are associated with allergies, including asthma. Sometimes mycotoxins are produced and these stay airborne with known health effects. AirRevival is unique in its ability to take out mold thanks to the hydrogen peroxide mechanism.

# AirRevival made in Sweden

## Cost effective and easy to use

AirRevival is patented and significantly more cost-effective than other air purifiers on the market. Its relatively small size makes it easy to transport and highly adaptable. It is also easy to set up and requires little maintenance.

A newly designed wall-mounted unit is now available, and is suitable for schools and larger rooms.

**Room size:** One Home unit (depicted) covers 15 m<sup>2</sup>. Wall mounted unit according to size and load. One large playroom with 17 children playing will require 2-3 wall mounted units.

**Noise:** None

**Ozone:**None

**Energy:** < 1 W, dedicated 12 V AC/DC power adapter

**Maintenance:** None apart from cleaning the surface behind. The collection of dirt does not reduce the efficiency.

**EMC:** Approved according to EN 2004/108/EC.

**Installation:** Attach using suction cups or hook and loop fastener. The wall-mounted unit is attached to the wall by screws.



For further information, see [www.airrevival.com](http://www.airrevival.com)



“ My vision is to use modern science to improve the indoor air quality where young children spend most of their time.”

Karl G Rosén is a pediatrician and professor in medical technology with over 40 years of experience to improve the situation for children of all ages.

AirRevival is the outcome of 20 years of research in the lab as well as in exposed environments.

**Why did you start the AirRevival project?** Twenty years ago we saw a marked increase in allergies among children. Perhaps the indoor air quality played a role. Children should be exposed to dirt but it should be the same dirt and not whatever all the other children or the building brought to the daycare center. Electrostatic air purification seemed to be a logic alternative with great potential.

**How can we know that air purification improves health situations?** Over the years data has accumulated showing not only improved attendance in Swedish preschools but we also know why viruses are killed and mold disappears. Equally important is the ability of the body to positively respond within days to the purified air.

“In Sweden, every school is checked for its ventilation and our old house did not meet all the standards. There was a risk we would have to close our Montessori preschool. We were saved by AirRevival units mounted on windows and walls. During the first year the sickness rate dropped by more than 50% compared to our previous years.

It is important we pay attention to the quality of indoor air. This is where the children spend most of their time and I recommend AirRevival to be used in all other schools.”

*Jeanette de Oliveira, Preschool Director, Solrosen, Sweden*



Neoventor Medicinsk Innovation AB

[www.airrevival.se](http://www.airrevival.se) | [info@neoventor.se](mailto:info@neoventor.se)

Kungälv, Sweden | +46733 722202, +46733 726023

## Clean air in schools

Handle polluting particles and mold



