



CHILDREN AND AIR POLLUTION

In August 2018, a Swedish teenager started spending her school days outside the Swedish parliament calling for the government to take stronger action against climate change. The teenager, Greta Thunberg was later joined by like-minded students and together they formed an organization known as Fridays for Future.

Fridays for future is a youth-led organization that protests against the lack of action from governments worldwide on the ongoing climate crisis. With over 14 million members, Fridays for future protests and fights against the various forms of environmental pollution including air pollution.

Air pollution takes occurs in different forms: it can be from burning combustion fuels like wood or kerosene for cooking or heating in homes or it can come from the ambient environment from power plants or motor vehicles.

According to the WHO, children are exposed to high levels of pollution when walking to school and while on the playground. Children growing up in slums are at a greater risk of being affected

by air pollution because of the already existing environmental threats such as lack of clean water and sanitation in the places they grow up in.

Nearly 17 million children and babies live in areas where outdoor air pollution is at least 6 times higher than international limits and 93% of children worldwide live in areas with high air pollution levels than the WHO guidelines

Air pollution affects children in different ways. After a child is born, the first 1000 days he or she is alive is critical to their brain development and neural connections. This influences the likelihood of the child developing a healthy brain which is crucial to a child's learning ability through life. Polluted air has been linked with a negative impact on the development of children with some research studies showing that children under the age of 3 who were exposed to high levels of air pollution were showing signs of delayed development.

Air pollution was seen to lead to reduced lung growth in children. Researchers found that children exposed to air pollution while growing up were at risk of having reduced lung growth and may never recover to their full capacity. The drop in lung function was similar to that of children who grew up in a home with parents who smoked

Some other effects of air pollution in children are pneumonia, asthma, and other respiratory diseases reduced verbal and nonverbal IQ, low grades and test scores, and other neurological problems. Exposure to air pollution also increases the risk of certain diseases such as lung cancer and heart disease.

The effect of air pollution on pregnant women was also visible with the children they give birth to being premature, small, and underweight. The WHO report showed a 4-point gap in IQ for children whose mothers were exposed to air pollution while pregnant.

The effects of air pollution are more severe in children as children are shorter than adults and are therefore exposed to concentrated pollutants when they are still growing up and their brains are developing. Children also breathe faster and take in more air relative to their body weight.

Air pollution can be combated in different ways such as; replacing fossil fuels with cleaner and renewable sources of energy, using filtration and scrubber systems which reduce the level of air pollution from cars and industrial exhaust, using newer, cleaner, and sustainable innovations in

urban planning to incorporate more green areas within urban centres which help reduce the level of air pollution, better waste management and disposal, proper recycling of paper, plastics, metals, and organic materials to prevent harmful chemicals from being released into the air and using cleaner cooking stoves at home.

Actions taken to reduce air pollution lead to a reduction in outdoor pollutants which improves air quality, this has been linked to an improvement in children's health. These actions will lead to the environment having better and cleaner air for our children. Cleaner air will lead to society having healthier and smarter children and later adults in society.

We owe it to future generations to create a suitable environment that will enable them to prosper and live full lives. This will not be possible if we ignore the effects air pollution has on children and their development. We as a society need to take the appropriate actions to reduce the level of pollution in the air to ensure that children can live full and healthy lives.