

## What to do when there is an air pollution alert

### What does it mean when there is air pollution alert ?

- An air pollution alert is when daily or hourly concentrations of air pollution rise very significantly above normal levels, and above WHO guideline levels and relevant Government standards.
- Alerts are usually given when the air pollution levels are likely to remain high for a period of some days.
- During such sustained levels of pollution people are more likely to have an immediate health reaction to air pollution – including respiratory or cardiovascular issues. This is particularly the case for vulnerable groups.
- Given the greater possibility of short-term effects when levels are very high therefore important that measures available to prevent exposure are ramped up and sustained.
- In many countries, Governments acknowledge severe or dangerous levels of air pollution by reference to a daily Air Quality Index (or AQI) and these figures often are used to forecast for the days ahead.
- The Air Quality Index is a national figure based on short-term measurements and is not the same as WHO Air Quality Guidelines which are long-term exposure measurements.

### What should I do when the air pollution becomes severe or hazardous ?

If air pollution levels become severe or hazardous local authorities may introduce stricter measures to restrict or limit activities such as driving in city areas. It is therefore important to check the advice from local authorities to guide your planned activities. Limiting exposure and stopping activities that may add to the problem become important. Here are some of the actions that should be followed:

- **Remain indoors as much as possible.** During high-pollution episodes all people, particularly those at risk, children and elderly people, should stay indoors as much as possible and away from roads with heavy traffic. External doors and windows should remain closed to reduce the penetration of pollution from outside.
- **Avoid prolonged or heavy exertion outside.**
- **Prevent additional sources of air pollution indoors:** by avoiding using anything that burns, such as wood burning stoves, candles and incense. Do not smoke tobacco products indoors.
- **Pay particular attention to keeping the rooms inside homes clean:** Wet mopping and dusting is preferable to sweeping or vacuuming as these can stir up additional dusts and particles.
- **Limit and if possible unnecessary travel by cars, scooters and other motorized vehicles:** This will not only prevent additional personal exposure but it will prevent adding to already high pollution levels for others

- **Create a clean room for sleeping particularly for young children or elderly persons.** A good choice would be one with few windows and doors. If the room has windows, keep them closed. Run an air conditioner or air purifier. If you are certain your air conditioner does not draw air from outdoors and has an appropriate filter.

## What about air conditioners and purifiers?

- Air conditioners and air purifiers can be a useful addition to daily precautions to remove particulate matter from indoors. They are very expensive items and so should be considered with great care.
  - Various types of air purifier exist, for different purposes such as removing odours and biological agents. To be effectively remove airborne particulate matter a High-Efficiency Particulate Arrestance or HEPA filter with a rating of at least H13 or above is needed. Avoid the use of ionization filter technology as it will generate ozone, and create additional health hazards..
  - To be effective air purifiers need to be operated according to manufacturers' guidelines and be able to handle the air inside the room in which it is placed. This depends on the size of the room and the capacity of the machine.
  - To get the maximum advantage from an air purifier, you may need to carefully select where it is placed inside the house. A bedroom where children or elderly are sleeping for example may offer most benefit.

- Nowadays air purifiers are increasingly available with on board particle counters or other measuring devices. These type of models are very useful to let you know that the machine is functioning and to alert you to when filters and other parts of the unit need maintenance.

## What about masks?

- Masks or particulate respirators may help in special circumstances if you have to be outside for long periods of time. Scientific evidence is limited on their effectiveness against air pollution.
  - Masks need to be of a special type and require special fitting.
  - Masks should be disposable, regularly changed and have a rating of at least N-95 meaning that the mask is adequate for filtering out 95% or most of the PM2.5 particles,
  - The fitting of the mask is very important. Masks should provide a tight seal around the wearer's mouth and nose. This may be particularly difficult to achieve especially for children.
- Dust masks should not be relied upon for protection. Paper "comfort" or "dust" masks are designed only to trap large particles, such as sawdust and offer little protection from fine particles. Similarly scarves or bandanas are not effective should not be relied upon for protection.

**Finally and always important – Visit your family doctor or health clinic if you feel unwell experiencing any adverse effects from air pollution.**