

MOH FAQ on Haze and Mask Wearing (2026)

General Information on PSI

1. What is the difference between 1-hour PM_{2.5}, 24-hour PSI, and PSI forecast?

1-hour PM_{2.5}

- The 1-hour PM_{2.5} concentrations reflect the average concentration of fine particulate matter (PM_{2.5}) over one hour and is a key indicator of current air quality during episodes of haze.
- The 1-hour PM_{2.5} concentration levels can be volatile and tend to fluctuate over the day due to weather conditions, especially during periods of transboundary haze.

24-hour PSI

- The 24-Hour Pollutant Standards Index (PSI) is an index to provide accurate information about daily levels of air quality.
- It is based on the worst of 6 pollutants namely, particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), and carbon monoxide (CO).
- A sub-index value is computed based on the **past** 24-hour average of concentration levels for each pollutant. The highest sub-index value is then taken as the PSI value.
- During episodes of haze, the fine particulate matter (PM_{2.5}) sub-index usually has the highest value and is therefore taken as the PSI value.

PSI forecast

- PSI forecast is a forecast range of the PSI for the **next** 24 hours, accompanied with a corresponding health advisory, during haze.
- The PSI forecast is based on NEA's assessment of the air quality, weather conditions, hotspot and haze situation in the region.
- It can be used for forward planning (i.e. next day) of outdoor activities or events that typically take place over many hours, or when taking precautions for prolonged outdoor work.

2. Which reading should I look at to plan my activities?

1-hour PM_{2.5} and personal guide: For immediate outdoor activities

- In 2020, MSE and MOH jointly developed a personal guide to help individuals decide on their immediate outdoor activities based on the current 1-hour PM_{2.5} concentration reading. This 1-hour PM_{2.5} personal guide serves as one of the

guiding factors that the public can consider when deciding whether or not to continue with physical activities.

- The 1-hour PM2.5 levels can be volatile and tend to fluctuate over the day due to weather conditions, especially during periods of transboundary haze.
- Individuals may refer to the latest 1-hour PM2.5 reading to plan for immediate outdoor activities. This includes deciding on mask-wearing if they need to be outdoors for several hours when 1-hour PM2.5 levels are high or very high.

For immediate outdoor activities, use the 1-hour PM2.5 reading and personal guide[^]:

Band 1 (Normal) (0 – 55 µg/m³)	Band 2 (Elevated) (56 – 150 µg/m³)	Band 3 (High) (151 – 250 µg/m³)	Band 4 (Very High) (≥251 µg/m³)
Continue with normal activities	Healthy persons - Reduce strenuous outdoor activity for the next hour Vulnerable persons – Avoid strenuous outdoor activity for the next hour	Healthy persons - Avoid strenuous outdoor activity for the next hour Vulnerable persons – Avoid all outdoor activity for the next hour; may wear a mask to reduce exposure	Healthy persons - Minimise all outdoor activity for the next hour; may wear a mask to reduce exposure Vulnerable persons – Avoid all outdoor activity for the next hour; may wear a mask to reduce exposure

[^]This guide is not intended to be prescriptive. For the general population, symptoms that may arise from short-term exposure such as throat or eye irritations are expected to resolve after withdrawing from the exposure.

PSI forecast and health advisory: For next day outdoor activities

- To plan next day outdoor activities or events that typically take place over many hours, individuals may refer to the PSI forecast, which indicates the likely PSI range over the next 24 hours, and the accompanying health advisory. This forecast is less volatile, making it suitable for forward planning.
- The health advisory is a guide for individuals to take precautions for prolonged outdoor activities.
- While the health advisory provides general precautionary advice, each individual's reaction to air pollutants may vary.
- The amount of physical activity or exertion that can be performed outdoors during haze periods also differs according to an individual's health status or capacity. Persons who are not feeling well, especially the elderly, children, and those with chronic heart or lung conditions should seek medical advice.

PSI Forecast	0-50 Good	51-100 Moderate	101-200 Unhealthy	201-300 Very Unhealthy	>300 Hazardous
HEALTHY PERSONS	Normal Activities	Normal Activities	Reduce prolonged or strenuous outdoor physical exertion	Avoid prolonged or strenuous outdoor physical exertion	Minimise outdoor activity
ELDERLY, PREGNANT WOMEN, CHILDREN	Normal Activities	Normal Activities	Minimise prolonged or strenuous outdoor physical exertion	Minimise outdoor activity	Avoid outdoor activity
PERSONS WITH CHRONIC LUNG DISEASE, HEART DISEASE	Normal Activities	Normal Activities	Avoid prolonged or strenuous outdoor physical exertion	Avoid outdoor activity	Avoid outdoor activity

*Note: **Prolonged** - continuous exposure for several hours; **Strenuous** - involving a lot of energy or effort; **Reduce** - do less; **Minimise** - do as little as possible; **Avoid** - do not do*

- During periods of transboundary haze, the 1-hour PM2.5 and PSI forecast readings will be available on NEA's website (www.nea.gov.sg), the haze microsite (www.haze.gov.sg), NEA's Facebook page (www.facebook.com/NEASingapore), NEA Twitter (@NEAsg), and the myENV app.

Impact of Haze on Health

3. What is MOH's advice to the public?

- Reducing outdoor activities and physical exertion can help limit the ill effects from haze exposure.
- The public is recommended to adhere to the personal guide and MOH health advisory for general precautionary advice, though each individual's reaction to the haze may vary depending on his or her health status, the amount of physical exertion and the duration of exposure.
- Persons who are not feeling well, especially the elderly, pregnant women, children, and persons with chronic heart or lung conditions, should seek medical attention.

4. What are the short-term effects of haze on my health?

- The health impact of haze is dependent on one's health status (e.g. whether one has pre-existing chronic heart or lung disease), the air quality (PSI level, PM 2.5 level) and the duration and intensity of outdoor activity.
- For healthy individuals, short-term exposure (i.e. over a few days) to haze will generally not cause any major health issues, other than irritation of the eyes, nose, and throat.
- Haze particles can affect the heart and lungs, especially in people who already have chronic heart or lung disease, e.g. asthma, chronic obstructive pulmonary disease (COPD) or heart failure. Such individuals may experience worsening of their symptoms when exposed to poorer air quality.
- There may be up to 1-3 days of time lag between exposure to haze and the onset of health effects or symptoms.
- As individuals may respond differently to haze, those who develop symptoms or feel unwell should seek medical attention, particularly vulnerable persons such as the elderly, pregnant women, children and those with chronic heart or lung conditions.

5. What are the long-term effects of the haze?

- Singapore is not affected by the haze throughout the year. Exposure is usually short-term in nature (over a period of hours to days) and such exposure may vary from year to year.
- Studies have shown that persons living overseas with continuous exposure over years to ambient pollution from fine particles such as PM_{2.5} may have a higher risk of (i) cardiovascular effects, such as heart attacks, (ii) lung cancer, as well as (iii) the development of respiratory diseases such as asthma in children. That said, evidence on long-term health effects from short-term or episodic haze exposure, such as those experienced in Singapore, remains

limited. This is partly because it can be difficult to distinguish the longer-term effects of individual haze episodes from those associated with underlying daily exposure to ambient air pollution.

Use of Masks

6. Do I need to wear a N95 mask (or equivalent), and when should I wear it? What about vulnerable groups of people? Should they wear masks to protect themselves?

- Our first advice is always to **reduce exposure** by staying indoors or reducing the duration and intensity of outdoor activity.
 - N95 masks (or equivalent) are not needed for commuting between home and school or work or in an indoor environment.
 - Individuals may refer to the latest 1-hour PM2.5 reading to plan for immediate outdoor activities, including deciding on mask-wearing if they need to be outdoors for several hours when PM2.5 levels are high or very high.
 - When the 1-hour PM2.5 reading is in Band 4 (Very High), healthy individuals should try to minimise all outdoor activity. However, persons who need to be outdoors for several hours for immediate activities may reduce exposure by wearing an N95 mask (or equivalent) with a good fit.
 - When the 1-hour PM2.5 reading is in Band 3 (High), vulnerable persons such as the elderly, pregnant women and individuals with chronic heart or lung disease should avoid outdoor activity. If they need to be outdoors for several hours for immediate activities, they may wear an N95 mask (or equivalent) to reduce exposure.
 - The elderly, pregnant women and those with severe lung or heart problems who have difficulty breathing at rest or on exertion should consult their doctor before using an N95 mask (or equivalent).
 - Women in the 2nd and 3rd trimesters of pregnancy may already have reduced lung volumes or breathing issues, and should not use an N95 mask (or equivalent) for long duration.
- Any person who feels discomfort when using an N95 mask (or equivalent) should take a break from using the mask.

7. Are there different types of “N95” masks in the market?

- There are different brands and classes (and certification marks) of masks which are equivalent to “N95” masks in the market, which have the same functionality to protect against fine particles (PM 2.5) in haze. They come in different colours, shapes and sizes.
- Other masks equivalent to “N95” can be labelled as KN95, FFP2 and KF94. These masks are also effective in reducing exposure to haze particles. The differing names and labels reflect their respective national standards.

Certification/ Class (Standard)	N95 (US NIOSH- 42CFR84)	KN95 (Chinese GB2626-2006, GB2626-2019)	FFP2 (European, EN 149:2001+A1: 2009)	KF94 (Korean, MFDS notice No 2015-61)
Filter performance* – (must be ≥X% efficient)	≥95%	≥95%	≥94%	≥94%
Certification Country	US	China	Europe	South Korea

***Filter performance:** The filter is evaluated to measure the reduction in concentrations of specific aerosols in air that passes through the filter.

8. How does a consumer choose which mask to purchase?

- N95, FFP2, KN95 and KF94 masks are all designed to reduce wearer's respiratory exposure to airborne contaminants such as fine particles in haze.
- Consumers should perform a fit check to ensure a good fit and comfort upon wearing the mask.

9. What about children? What type of mask is available for use in children?

- The key precaution for children during haze is to adhere to the haze health advisory and personal guide when planning outdoor activities.
- Although there are currently no international certification standards for N95 (or equivalent) masks meant for use in children, the AIR+ KN95 Mask can be used (only where necessary) by children without heart and lung conditions to protect against the effect of haze, provided it maintains a well-fitted seal at all times.
- For N95 masks (or equivalent) to be effective, it needs to maintain a well-fitted seal at all times, which may be difficult to achieve in young children. In addition, young children may find it uncomfortable to wear a tight-fitting mask and will very likely adjust the mask that is worn, reducing the effectiveness of the mask.

10. Is the AIR+ KN95 Mask safe for use in all children 7 years and above? What level of activity can children engage in when wearing the AIR+ KN95 mask?

- A clinical trial conducted by the manufacturer (i.e. Innosparks Pte Ltd) on the impact of the AIR+ KN95 Mask on children aged 7 to 14 years found that the AIR+ KN95 Mask, can be used safely in children without existing heart and lung conditions.
- The AIR+ KN95 mask is tested and certified to GB2626-2019 KN95 standard that is a Chinese standard for respiratory protective equipment. The standard is issued by the Standardization Administration of China (SAC).
- To be effective, the mask needs to maintain a well-fitted seal at all times. If the child experiences breathing discomfort while using the mask, it should be removed.

- Any child with chronic heart and lung disease should not be using the AIR+ KN95 masks, or any N95 masks (or equivalent) without medical (paediatric specialist) advice.
- Children who wear the AIR+ KN95 mask can carry out light physical activity such as brisk walking. It is not advisable to carry out greater levels of physical activity when wearing the mask.
- This Air+ KN95 masks can be reused intermittently. The mask should not be shared, and should be replaced when it is physically damaged or dirty.

11. Is the N95 mask (or equivalent) an adequate protection against haze? Does it protect against PM2.5?

- N95 masks (or equivalent) must be fitted properly to the face of the wearer for it to effectively protect the user. The mask must be appropriately sized, and cover the nose and mouth comfortably without leaks. This way, most of the air that the wearer breathes in has to go through the filter and not through the gaps between the mask and the wearer's face.
- Haze can contain fine particles that are 2.5 microns or smaller (PM2.5). Studies have shown that N95 masks or equivalent do provide good protection against particle pollutants as they are at least 94%-95% efficient against fine particles that are about 0.1 – 0.3 microns.

12. What are the effects of wearing a N95 mask (or equivalent)?

- The use of N95 masks (or equivalent) increases effort in breathing. For some people, the use of these masks may cause discomfort in breathing, tiredness or headache. This may be due to the mask causing increased resistance to breathing, and a reduction in the volume of air breathed. This is usually not serious for healthy people.
- However, some elderly, people with lung or heart conditions, and women in the later stages of pregnancy may already have reduced lung volumes or breathing issues.
- The elderly, pregnant women and those with severe lung or heart problems who have difficulty breathing at rest or on exertion should consult their doctor before using an N95 mask (or equivalent).
- Any person who feels discomfort when using such masks should take a break from using the mask.
- Women in the 2nd and 3rd trimesters of pregnancy should not use the mask for long durations and should take a break from using the mask once they feel uncomfortable.

13. How do I learn to fit my N95 mask?

- For best effect, N95 masks need to be fitted properly for each user. To check for proper fit, please check that the available mask is appropriately sized and covers the nose and mouth comfortably without leak.
- For guidance on how to wear an N95 mask properly, please refer to the infographics on the different mask types in Annex A:

14. Can I reuse my N95 mask (or equivalent)? Can I wear my N95 mask (or equivalent) after the expiry date?

- N95 masks (or equivalent) can be reused during haze, but should not be shared.
- N95 masks (or equivalent) can be reused so long as they are not soiled/dirty, damp, damaged or out of shape.

Before using the mask

- The effectiveness of an N95 mask (or equivalent) depends on having a good fit.
- Always inspect the mask and conduct a seal check before use.
- Ensure that the mask is not distorted and mask components, including elastic headband straps and nose foam/clip, where applicable, that contributes to the masks' ability to seal effectively to the face is in good condition.
- If the person wearing the N95 mask (or equivalent) cannot achieve a proper seal, then the mask should not be used.

Mask shelf-life/expiry date

- N95 masks (or equivalent) have a manufacturer-designated shelf-life or expiry/use-by date which indicates how long the masks can be stored before degradation and reduced performance may begin to occur. They are generally safe to use throughout their stated shelf life.
- It is generally not advisable to use an N95 mask (or equivalent) beyond its stated shelf life, because it may not work well.

15. Are surgical or cloth masks useful?

- N95 and equivalent masks are effective against haze and filtering out PM_{2.5} particles. Surgical masks can also provide a barrier against larger irritant particles and can reduce discomfort and risk of infections during this time. However, for the general public, if the PM_{2.5} reading is above 250µg/m³ and

you have to be outdoors for several hours, we would advise that you put on a N95 mask (or equivalent).

- Cloth masks are generally not effective in filtering fine particles (i.e. tiny particles that are 2.5 microns or less in width), although they can reduce the discomfort caused by haze by providing a barrier between the wearer's nose and mouth, and larger irritant particles in the air.

16. Are surgical masks the same as N95 masks (or equivalent)?

- Surgical masks and N95 masks (or equivalent) are different and were made for different purposes. Surgical masks were designed to protect the surrounding environment from the user's own spit or mucus. Healthcare professionals use them (e.g. in an operating theatre) to prevent their own germs from infecting the patient.
- N95 masks (or equivalent) were designed to protect the wearer from airborne particles. Studies have shown that they are at least 94-95% efficient against fine particles that are about 0.1 – 0.3 microns, assuming good fit on the wearer's face.

Annex A

Infographics on How to Wear N95 masks



6

Protect yourself and your loved ones

Six Steps to wearing the N95 MASK



Step 1

Wash your hands before putting on the mask.



Step 2

Select a suitable N95 mask that fits* well.

*Available in different sizes



Step 3

Hold the mask with a cupped hand and place it firmly over your nose, mouth and chin.



Step 4

Stretch and position top band high at the back of head. Stretch and position bottom band under the ears.



Step 5

Press the thin metal wire along the upper edge gently against the bridge of your nose so that the mask fits nicely on your face.



Step 6

Perform a fit check by inhaling and exhaling. During exhalation, check for air leakage around face.

For more information on the above steps, please call HealthLine at 1800 223 1313.

www.hpb.gov.sg
1800 223 1313

6

Six Steps to wearing the N95 MASK



Step 1

Wash your hands before putting on the mask.



Step 2

Select a N95 mask that fits you well. Separate the edges of the mask and slightly bend the thin metal wire to form a gentle curve.



Step 3

Use your index fingers and thumbs to separate the two headbands while you hold the mask. Place the lower end of the mask on your chin.



Step 4

First, pull both the headbands up and over your head. Then, release the lower band from your thumbs and position it under your ears. Now, position the top band at the back of your head.



Step 5

Press the thin metal wire along the upper edge gently against the bridge of your nose so that the mask fits nicely on your face.



Step 6

Perform a fit check by breathing in and out. While breathing out, check for air leakage around your face.



Elderly people, people with chronic lung disease, heart disease or stroke, and pregnant women should consult their doctor on the use of the N95 mask if they feel uncomfortable while breathing. N95 masks are not certified for use on children, so children should remain indoors as much as possible.



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