

Indoor Wellness Guideline

By the Malaysian Society of Allergy and Immunology (MSAI)



Foreword



Dr. Amir Hamzah Abdul Latiff
President

Malaysian Society of Allergy and Immunology (MSAI)

On behalf of the Malaysian Society of Allergy and Immunology (MSAI), I would like to sincerely thank Nippon Paint Malaysia for their partnership in making MSAI's first Indoor Wellness Guideline a reality. This is indeed an important milestone for our organisation as well as for all Malaysians.

As indoor wellness is an area that is often overlooked, it is in MSAI's personal interest to look at it vis-à-vis the larger context of environmental pollution and climate change, and to see how it affects healthcare in general, specifically allergy-related diseases in Malaysia. Thus, this Guideline is critical and necessary in raising awareness of these issues.

Malaysia is no exception to the global issue of environmental air pollution, both outdoors and indoors. Our country has experienced severe outdoor air pollution in recent years, such as the haze but many Malaysians may not realise that air quality indoors is not devoid of pollution either. This form of pollution would be constantly present and could be worse than outdoor pollution by about 2 to 5 times.

This Guideline focuses on residential homes, because while looking at the community as a whole, we realised that most of us spend our time indoors. There is evidence found on the impact of indoor air pollution on many chronic non-communicable diseases (NCD) and an early manifestation of NCD is allergy-related diseases.

It is our hope that this Guideline will eventually be presented and adopted by the government and policy makers with the desire to propose a white paper on Environmental Pollution and Climate Change for Malaysia. This would be in line with the recommendation made by the World Health Organisation (WHO), to look into pressing issues affecting the livelihood of every individual globally on this subject matter.

Make it a priority to keep the spaces at home clean, and I urge all Malaysians to take on a more holistic approach towards health and wellness – aside from dietary and lifestyle perspectives.

Be part of the change to make our beloved country a much better, healthier place to live in!



Mr. Yaw Seng Heng
Group Managing Director

Nippon Paint Malaysia Group

We at Nippon Paint Malaysia would first and foremost like to thank the Malaysian Society of Allergy and Immunology (MSAI) for their support in making this maiden Indoor Wellness Guideline a reality.

Most of us spend our time indoors and young children spend an average of 8 to 20 hours indoors daily. This might not sound alarming but do consider this: when we're indoors, we're surrounded by the walls of our home, the largest indoor surface, which could be a medium of transmission of viruses and bacteria. There are many other indoor air pollutants that are present in the home, and this is part of the reason why we have undertaken the Indoor Wellness Survey, with the aim of assessing the habits of Malaysian homeowners when it comes to the cleanliness of various spaces at home. The Survey, together with the Guideline, forms part of Nippon Paint's Indoor Wellness Programme to raise awareness as well as educate Malaysian homeowners on the importance of a safe and clean home environment.

Not many are aware that coatings in the home can impact one's wellness and as such, it is of utmost importance in choosing the right type of coatings. This is to foster an ideal indoor environment in terms of wellness, aside from its aesthetics function. Our focus on wellness goes back to 2006 with the launch of the industry's first odourless paint, followed by the Green Choice Series which is made to be eco-friendly. Following that, with our focus on research and development (R&D), more industry-firsts innovations were introduced: such as Malaysia's first anti-viral coating with the ability to inhibit the growth of viruses and bacteria that cause illnesses such as Hand, Foot and Mouth Disease (HFMD) and H1N1 (Influenza A).

We hope to inspire Malaysians to view health and wellness in a more holistic manner through various awareness and educational initiatives undertaken within the Indoor Wellness Programme. In addition to dietary, exercising and mental health, indoor wellness is a critical component to our overall health and wellness and is often overlooked!

We hope that all Malaysians will draw from the practical tips laid out in this Guideline, and work towards providing a safer indoor environment for themselves and their loved ones.

Introduction

Most people tend to spend their time indoors, often with the misconception that it is safer to do so than being exposed to the polluted air outside. According to the United States Environmental Protection Agency, in recent years, a growing body of scientific evidence has indicated that the air within homes and other buildings can be more polluted than the outdoor air in even the largest and most industrialised cities. Other research also indicates that people spend approximately 90 percent of their time indoors¹. Thus, for many, the risks to health may be greater due to exposure to air pollution indoors than outdoors.

Climate change poses many risks to human health, one of which is affecting our health by making our air less healthy to breathe in². Our environment plays a big part as well, as air from the outside will undoubtedly filter into homes and other indoor environments. Common outdoor air pollutants such as soot, smoke, mould, pollen, methane and carbon dioxide in the air decrease outdoor air quality, and could ultimately cause respiratory issues, eye and skin irritation and dizziness². Furthermore, carbon dioxide from the burning of fossil fuels, along with methane from the natural gas industry and livestock, are greenhouse gases which trap heat in the atmosphere, a cyclical process of climate change.

We respond to environmental stress in several ways, including the opening or closing of windows for increased ventilation, and usage of air conditioners or humidifiers to regulate the temperature of rooms at home. However, most of us make little ventilation mistakes that could lead to comfort problems. For example, we tend to close all windows at home during the hot season, which only lead to the growth of mould due to increased moisture levels indoors¹.

In recent years, we have seen the increase of indoor pollutants due to the use of synthetic building materials, furnishings, personal care products, pesticides and household cleaning products¹. According to the Journal of the Air Pollution Control Association, some air pollutants that are predominantly indoors include formaldehyde, asbestos, organic substances, ammonia, mercury, viable organisms and allergens, all of which bring about negative side effects to our health.

Predominantly indoor air pollutants	Sources
Radon	Construction materials (i.e. concrete, stone), water and soil
Formaldehyde	Particleboard, insulation, furnishings, tobacco smoke and gas stoves
Asbestos, mineral and synthetic fibers	Fire-retardant, acoustic, thermal or electric insulation
Organic substances	Adhesives, solvents, cooking and cosmetics
Ammonia	Metabolic activity and cleaning products
Polycyclic hydrocarbons, arsenic, nicotine, acrolein, etc	Tobacco smoke
Mercury	Fungicides in paints, spills in dental care facilities and thermometer breakage
Aerosols	Consumer products
Viable organisms	Infections
Allergens	House dust and animal dander

Table 1: Sources of indoor air pollutants

Source: Yocom J.E. Journal of the Air Pollution Control Association

Assessing indoor air quality requires large-scale materials and manpower resources. However, in the absence of a proper measuring tool, it was found that questions relating to visible fungus on the walls and the usage of artificial air fresheners are helpful in determining overall air quality at home.

A study on the relationship between indoor air pollutant levels and children with skin irritation also found that visible mould on the walls, use of artificial air fresheners, presence of indoor pets and indoor plants, wall coatings and ventilation type are environmental factors that contribute to indoor air pollution levels.

	PM ₁₀	Formaldehyde	CO ₂	CO	NO ₂	Benzene	Toluene	Ethylbenzene	Xylene	Styrene	TVOCs	Bacteria	Fungi
Indoor renovations within 5 years (Painting)													
Moving to newly constructed building within 1 year													
Frequency of vacuuming													
Ventilation type													
Use of air cleaner													
Visible mould on the walls													
Use of artificial air freshener													
Insecticide use													
Indoor domestic pets													
Air-purifying indoor plants													
Parental smoking													

Table 2: Distribution of environmental factors mainly contributing to level of the indoor air pollutants.

Source: Allergy, Asthma & Immunology Research

Orange P<0.05 Green P<0.1 Blue P<0.15

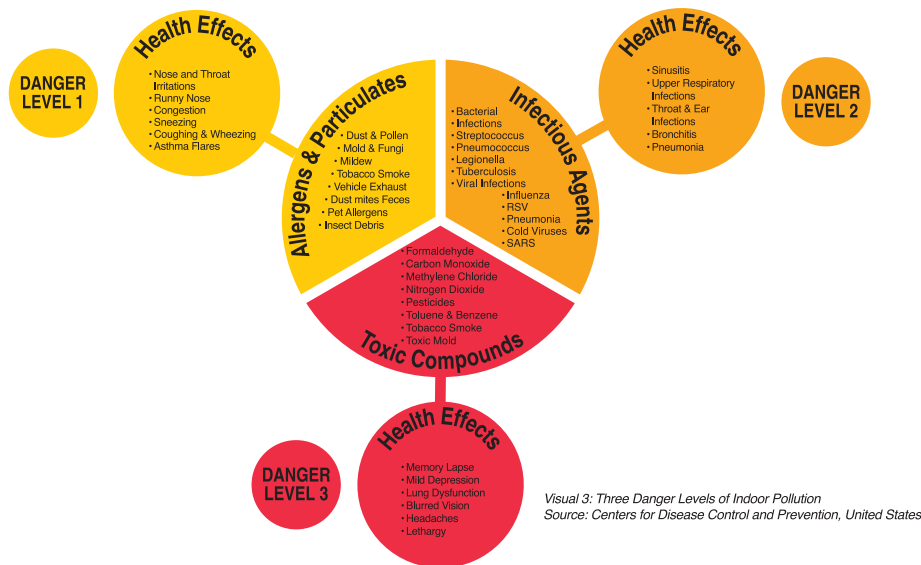
Particulate Matter* (PM) includes: CO₂, carbon dioxide; CO, carbon monoxide; NO₂, nitrogen dioxide; TVOC, total volatile organic compound.

1 Indoor Air Quality: Report on the Environment, <https://www.epa.gov/report-environment/indoor-air-quality>

2 Air Pollution, facts and information explained, <https://www.nationalgeographic.com/environment/global-warming/pollution>

Centers for Disease Control and Prevention, Climate Change Decreases The Quality Of The Air We Breathe, https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final_508.pdf

Three Danger Levels of Indoor Pollution



Most people do not realise that prolonged exposure to indoor air pollution can actually lead to long-term side effects. In reality, there are three danger levels of indoor pollution based on the types of pollutants one is exposed to, as shown in the diagram above.

In Danger Level 1, the main effects allergens and particulates have on an individual's respiratory health include:

- Asthma (new-onset, worsening, exacerbations, medications) and asthma-like symptoms
- Bronchial hyper responsiveness
- Wheezing attacks
- Cough/phlegm
- Rhino-conjunctivitis
- Red/itchy/watery eyes
- Sneezing
- Nose/mouth/throat irritations
- Nasal stuffiness/runny nose
- Atopic sensitisation

In Danger Level 2, the viruses and bacteria found on surfaces at home can also cause:

- Sinusitis
- Ear and throat infections
- Bronchitis
- Pneumonia

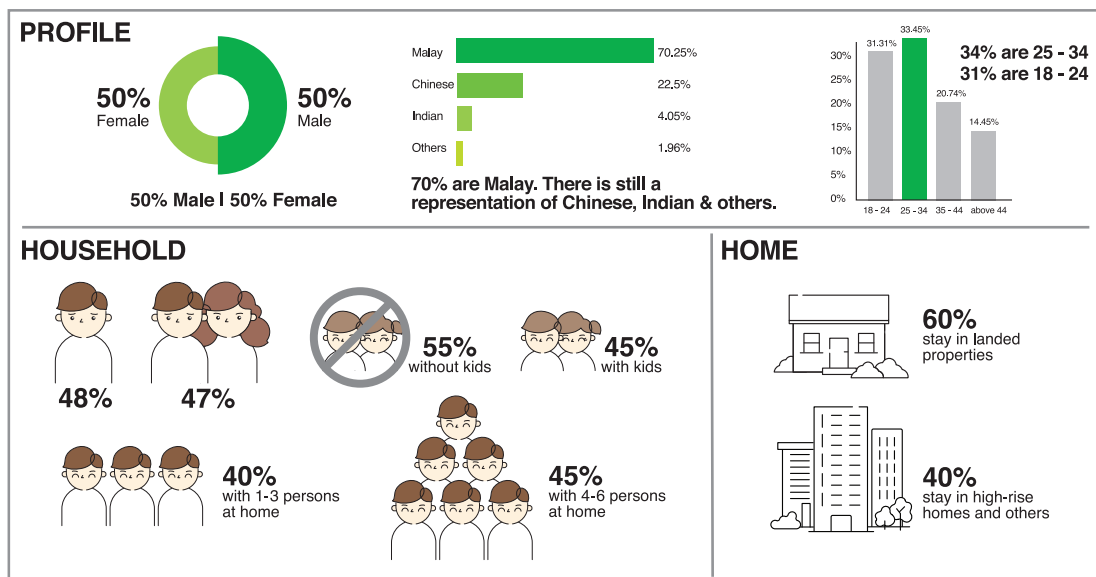
In addition to the above, as per Danger Level 3, toxic compounds such as formaldehyde found in furnishings, carbon monoxide from incomplete combustion, tobacco smoke and pesticides can cause dangerous long-term health effects such as:

- Memory lapse
- Headaches
- Lethargy
- Blurred vision

Indoor Wellness Programme

The Indoor Wellness Programme is an educational campaign aimed at empowering Malaysian homeowners to take charge of improving their overall indoor air quality at home, towards holistic wellness. The Indoor Wellness Programme consists of two components – the Indoor Wellness Survey and the Indoor Wellness Guideline.

The Indoor Wellness Survey was carried out by Nippon Paint Malaysia involving 511 Malaysian respondents, aimed at assessing the habits of Malaysian homeowners when it comes to the cleanliness of various spaces at home. Amongst other various insights, the Survey found that 60% of surveyed Malaysians (or 6 out of 10) have poor indoor air quality at home, with almost half of them comprising of those in the much younger age group of between 18 to 24 years old.



Following the Survey, an Indoor Wellness Guideline was developed by the Malaysian Society of Allergy and Immunology (MSAI) in collaboration with Nippon Paint Malaysia, which seeks to provide practical steps in achieving an improved indoor wellness level at home. This Guideline also aims to educate the public on why indoor wellness is important and how to minimise indoor pollutants. This in turn would lead to lower occurrences of conditions related to the negative effects contributed by indoor pollutants such as airway irritation and allergy flare ups.

This Guideline will focus on 4 areas of the home - living room, bedroom, bathroom and kitchen – all of which impact the indoor wellness of Malaysians.



Living Room

The living room is where families spend the most time in. It is also a space where everyone can relax, watch television, read or to just have a snack. For homes with children, the living room is their playground, classroom and also entertainment area.

If indeed there are plans for the pitter patter of little feet, indoor air quality must be made better in order to raise strong and healthy children, as the living room eventually becomes the space where they spend their time playing and learning about their surroundings.

Health threats in the living room include dust that live in the carpets, fabric covered furniture, and also walls. Scarily, it was found that only 52% of respondents vacuumed the living room once a week or less! Although sofas are a common source of dust mites, only half of the respondents clean these surfaces monthly. Dust and dirt can also accumulate on the walls and shockingly, the Survey revealed that 38% of Malaysians clean their walls once a year or some, never!



Did you know?

Dust mites are microscopic animals that eat the dead skin cells that people shed. They thrive in warm, humid environments such as carpets and upholstery especially if they're not regularly vacuumed. For those who suffer from dust mite allergies, symptoms such as sneezing, blocked nose, asthma and hives can worsen especially if they live in homes that are not regularly cleaned. These uncleaned surfaces can increase risk for influenza as flu viruses can sometimes survive on indoor surfaces for more than 7 days.

Other indoor air pollutants in the living room include Volatile Organic Compounds (VOCs) from furniture such as plywood shelves, wallpaper, fibreboard tables, pesticides, carpeting and floorboards. These are sources of VOCs such as formaldehyde which is a colourless chemical/gas found in and around most homes and buildings. High levels of formaldehyde can cause symptoms such as teary eyes, coughing and irritation to the nose and throats. This is worrying, as young children whose lungs are still developing can be sensitive to the effects of formaldehyde.

In homes with small children, illnesses are inevitable as children explore the world with their hands and mouths. Harmful diseases such as Hand, Foot and Mouth Disease (HFMD) and H1N1 are on the rise, and can easily spread while the children are at school. In fact, children below the age of 5 are the most vulnerable to the risk of HFMD. The viruses and bacteria then make their way indoors and stay on every surface the child touches.

Take action:



- Vacuum and mop the living room at least twice a week and clean the sofa once a week especially if it's covered in fabric. For those with severe dust mite allergies, consider switching to leather, plastic or vinyl furniture to prevent accumulation of dust mites. These types of furniture are also easier to clean with a quick vacuum and weekly wipe down with a microfibre cloth.



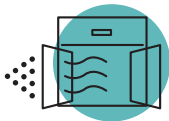
- As for homes with pets, daily vacuuming is recommended to remove fur, dust and dirt that the animal may have brought in from outside along with mould spores and other allergens. Consider a programmable robot vacuum and run it once or twice a day especially if daily vacuuming is not possible due to work schedules. Do a deep vacuum clean of the living room every week on top of running the robot vacuum daily in order to keep the living room spic and span.



- Carpets need daily vacuuming as well as professional steam cleaning every six months; four to six weeks if there are pets in the home. If there are members of the household with severe dust allergies, consider removing the carpet and installing easy to clean surfaces such as tile, wood, linoleum or vinyl flooring. To keep the cosy feel of the living room, use low pile area rugs, vacuum these every day and run them through a hot wash cycle weekly while you clean the floors underneath them.



- Install an air purifier with a High-Efficiency Particulate Air (HEPA) filter in the living room to remove dust and other pollutants from the air. This can greatly decrease the dust and other allergens accumulating on surfaces such as the floors and walls.



- Air out new furniture that contain large amounts of VOC materials (fabric, wood) for at least a week before use to ensure that your indoor health won't be affected. To further help in removing VOCs from the air, place activated charcoal carbon filters in and around the living room especially near the new furniture and other furnishings that are being aired out.



- Choose coatings for the walls which are also easy to clean especially in households with children, because walls can harbour bacteria and viruses on top of dust and mould. Certain coatings have ingredients that make them anti-virus and anti-bacteria which are also easy to clean and are non-toxic, perfect for homes with small children.

Try this!



Adding indoor plants in your living room improves air quality. Plants that are effective in increasing oxygen levels in the air include snake plants, bamboo plants, and golden pothos, amongst others.

In a 1989 study by NASA, it was found that indoor plants can remove formaldehyde and benzene, common cancer-causing volatile organic compounds, from the air. Soil microorganisms in the potted plants was also found to help improve indoor air quality.

Source: Clear and Well, TIME.com



Bedroom

Naturally, good bedroom air quality improves the quality of sleep which positively impacts mental and physical wellbeing. Did you know that throughout our lives, 26 years of it is spent sleeping? Adequate amounts of sleep boosts mental health and improves physical wellbeing, immunity and weight regulation. For allergy sufferers, the air quality of the bedroom is doubly important as it is where rest and recuperation take place.

Bedding, rugs, curtains and headboards, especially fabric ones are the ones that harbour the most dust mites. Only 51% of surveyed Malaysians vacuum the bedroom floor once a week or less while 43% of respondents clean the bedroom walls on a yearly basis or have never done so!

48% of the respondents clean the furnishings in the bedroom such as storage units, carpets, fabric floor mats, curtains and more, monthly or less and this is very unhealthy. The recommended cleaning frequency of these furnishings is, in fact, once a week!

Cleaning also extends to frequent changing of the bedclothes along with vacuuming the mattress. It is highly advisable for dust mite allergy sufferers to have a dust mite protector for the mattress and pillows.



Did you know?

Allergy symptoms such as sneezing, itchy eyes and wheezing can greatly impact a person's quality of sleep and this could cause negative effects such as poor concentration, irritability and even increase their risk of accidents.

Only 52% of the respondents are aware of recommended practices for effective room ventilation such as opening doors, windows and using air purifiers or a fan and almost half of surveyed Malaysians at only 48%, do not practice the recommended ventilation habits in the bedroom and this could lead to poor air circulation. Improper ventilation could cause high humidity levels which can affect those with allergies and cause complications in those who have respiratory diseases due to mould and dust mites. Additionally, high levels of humidity can affect the concentration of VOCs in the bedroom and prolonged exposure could cause flare ups of health conditions such as eczema.

Take action:



- Clean your bedroom space and storage area once a week to ensure a clean indoor space. Vacuum every surface from top to bottom to make sure that the bedroom is dust free. Always mop right after vacuuming to remove any residual dust and dirt. It's best to vacuum and mop the floors twice a week in the bedroom.



- Vacuum and wipe the blades of the ceiling fan at least once a week to prevent any build-up of dust. For air conditioners, clean the air filters once a week as well to get rid of dust and other trapped dirt in order to keep the air circulating in the bedroom as clean as possible.



- Use a natural carpet freshener such as baking soda instead of artificially scented sprays to prevent releasing harmful VOCs in the bedroom.

Try this!



Sprinkle baking soda on the carpet and mattress to absorb odours and excess moisture. Afterwards, vacuum up the baking soda and do another round of vacuuming just to make sure that all traces of baking soda, dust and other unwanted dirt is removed. It is best to vacuum the carpets, rugs and mattress weekly.



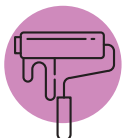
- For dust mite allergy sufferers, consider changing the material of the headboard to wood, vinyl, or leather. This is because fabric headboards can harbour more dust and dust mites which can trigger an allergic reaction. A wood, vinyl or leather headboard is easier to clean with a wipe of a soft cloth.



- Open the windows every day to ventilate the room and use an air purifier to clean the air while it circulates.



- Some plants such as snake plant and golden pothos are great at increasing oxygen levels in the air, so make sure to have some of these plants in the bedroom; some greenery in the bedroom can help relax tired eyes!



- Paint the bedroom in soft, relaxing colours and choose coatings with easy to clean properties to make it easier for weekly cleanings. Coatings that are odourless with anti-formaldehyde characteristics could help absorb formaldehyde in the air resulting in cleaner, fresh air that is integral for the bedroom.



Did you know?

For those who use humidifiers in the bedroom to combat dry skin, cracked lips, sinus congestion and nose irritation cause by air conditioning, remember to keep an eye on the humidity levels. Too much humidity in the air can encourage the growth of mould, bacteria and dust mites. Get a hygrometer in order to adjust your bedroom's humidity levels. The best range is between 30 and 50 percent.

Source: Healthline.com



Bathroom

The bathroom is a place where hygiene activities are performed and also a high traffic area because everyone uses the bathroom a few times a day. Depending on a person's age and gender, their use of the bathroom may differ as some may also carry out their skincare and make-up routine in addition to cleaning themselves and other hygiene practices.

It was determined that mould is the number one source of indoor pollutant in the bathroom according to the Indoor Wellness Survey. In fact, 55% of surveyed Malaysians spot mould in their bathrooms and only 40% clean the bathroom floors once or twice a week!



Did you know?

Mould spores can enter through the nose and cause symptoms such as itchy eyes and nose, sneezing, runny or congested nose or postnasal drip. Worse, the mould spores could reach the lungs and trigger asthma.

Another indoor health threat in the bathroom is slippery floors. Bathroom floors could become slippery due to the build-up of mould. 45% of the respondents in the Indoor Wellness Survey were reported to have four to six persons living at home and it is possible that this includes the elderly. Slippery bathroom floors could cause injury, a primary concern especially for the elderly who live alone.

Excessive moisture and perpetual dampness make the bathroom a great place for mould to live. Almost 24% of the surveyed Malaysians do not ventilate their bathroom and this traps moisture not just on the walls and floors but also in the air. This also encourages the growth of bacteria which is bad news, because 45% of Malaysians keep their toiletries on an open shelf in the bathroom. Majority of surveyed respondents ventilate their bathrooms either by opening the windows, using an exhaust fan or both.

62% of respondents were found to use scented candles and also artificial fragrances to improve the air quality in the bathrooms. Contrary to popular beliefs, this is actually an unhealthy practice because scented candles, especially paraffin ones, could release carcinogenic toxins such as benzene, toluene, formaldehyde and soot into the air. Soot can discolour the walls and ceiling of the bathroom, causing the area to appear dingy and grey.

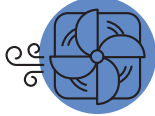
Standing pools of water due to not cleaning enough could breed mosquitoes which are also carriers of diseases such as Dengue and Chikungunya.

Only 40% of the respondents clean the storage units, carpets, fabric floor mats, shower curtains and shower doors in the bathroom once a week which is the recommended frequency. The other 60% is further broken down into about 30% of them cleaning the bathroom once a month or less and the other 30% cleans the bathroom once every 2 to 3 weeks.

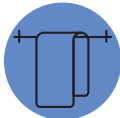
Take action:



- Bathroom walls need to be cleaned weekly and the floors need to be cleaned twice a week to ensure a clean bathroom space. After cleaning, it's pertinent to dry all surfaces to prevent the growth of mould and minimise the risk of falling for the elderly.



- Install exhaust fans to remove moisture from the air and move polluted air outdoors. This also wicks moisture from the air, keeping the bathroom dry and less likely to grow mould. If this is not possible, air out the bathroom daily by opening a window.



- Hang up towels and bathmats after use to prevent any unpleasant smells due to dampness. After 3 to 5 uses, wash them in the washing machine with hot water and allow them to dry under the sun to kill any bacteria and mould spores.



- Ensure toothbrushes have covers to keep them free from bacteria and remember to change the toothbrush once every 3 months or once the bristles start to fray.



- Wipe your toiletries dry to prevent the growth of bacteria and keep them in a cabinet to prevent bacteria overgrowth.

Try this!



Instead of scented candles and artificial fragrance sprays, use natural deodorisers such as baking soda with a few drops of essential oils.



- Check the labels of cleaning products because a lot of them contain VOCs that can irritate airways, cause allergic reactions and headaches. When in doubt, turn to natural cleaning remedies such as baking soda for scrubbing and a mix of vinegar and water to clean glass. When cleaning, open all windows and doors to increase ventilation.



- Carry out regular plumbing checks and servicing to ensure that there's no preventable water leakages.



- Paint tiles with coatings that are mould-resistant and non-toxic. Coatings that are washable are best because the bathroom needs to be cleaned at least once or twice a week, or better yet, daily.



Kitchen

This is the heart of the home the family is nourished. The kitchen is also where fresh food is being kept and where cooking is done. For some, this is also where the family bonds by cooking together and then gathering to eat.

Only 51% of the surveyed Malaysians open doors or windows to circulate the air in the kitchen. A common threat to an individual's health that can occur in the kitchen is carbon monoxide poisoning from gas stoves which is odourless and tasteless. Improper fitting of the gas stove could result in the release of carbon monoxide into the air which is very alarming as it is virtually undetectable.

Did you know?



Breathing in too much carbon monoxide can actually starve the body of oxygen – which can become deadly after a prolonged period of time!

The kitchen floor could become greasy especially if it isn't cleaned after every time someone cooks and this could cause a nasty fall. It is reported that 38% of the respondents clean their kitchen floor daily, but this number should be higher. Additionally, only 40% of the surveyed Malaysians clean the kitchen wall weekly which should also be higher as there's bound to be food and other particles splashed on the walls during cooking.

Uncleared garbage in the kitchen can attract pests such as flies, cockroaches and rats which can cause diseases such as typhoid and leptospirosis. Cockroaches are also a common source of indoor allergens next to dust mites and can cause the same type of symptoms such as hives and also increasing the severity of asthma symptoms. Although 68% of the surveyed Malaysians clean the garbage daily, more needs to be done to minimise pests!

Take action:



- Mop the kitchen floors every day with hot, soapy water to prevent any oil build-up and possible falls.



- Wipe down all cooking utensils, stove and oven after each use. This is because microscopic particles of oil can be trapped in the air while cooking and these particles settle on the surfaces, causing them to become oily and sticky.



- Use a smoke or exhaust fan for better ventilation and to move indoor air pollutants such as carbon monoxide out of the kitchen. It is also advisable to install a carbon monoxide detector especially if the home is using a gas stove.



- Use the exhaust or range hood when cooking in order to vent out pollutants such as carbon monoxide, nitrogen dioxide and water vapour out of the kitchen. A range hood also reduces the amount of moisture in a home which keeps the indoor air healthier and also discourages the growth of mould.

Try this!



Unpleasant smells from the kitchen sink could be caused by a clog from grease or other food particles. Instead of using harmful drain decloggers which pollutes water sources, use a mix of baking soda and vinegar. Pour a cup of baking soda down the sink's drain hole and follow with another cup of vinegar. Plug the drain hole so the fizzing action occurs in the pipes. Boil some water and pour it down the drain once the fizzing stops to flush any lingering clogs away.



- Clear the garbage daily even if there isn't a lot. Clean the inside and outside of the bin with antibacterial soap and dry thoroughly to prevent any bacteria growth.



- Use lids on trashcans to avoid unnecessary growth of bacteria and also to keep pests out.
- Paint the walls with coatings that are easy to wash especially in the backsplash area of the stove and kitchen sink.

Where do we go from here?

Everyone deserves to live in a home with good indoor air quality, especially for households with children and the elderly. Health problems such as irritated airways and allergies could be worsened by VOCs, mould and dust mites in the home. In addition to this, improper upkeep of the home can also result in physical injuries such as falls or sharp force injuries in the kitchen.

Installing air purifiers, having a regular cleaning schedule and picking the right furniture that minimises dust could help keep your home's air quality at optimal levels. Buying a vacuum cleaner with a HEPA filter will also greatly help especially for those who are allergic to dust mites. Regular cleaning of the walls and floors can reduce the amount of dust in your home as well. An additional step to having better indoor air is to ventilate your home appropriately.

It is pertinent to choose the right kinds of coatings for your walls that are low VOC, low-odour and anti-formaldehyde in order to keep your home's indoor air quality healthy and safe for all. Washable coatings are also great in areas such as the living room as it doesn't limit the creativity of little ones who may express themselves by drawing on the walls.

Take Action

Good indoor wellness is part and parcel of achieving overall health and wellness. There are steps, small and large, that you can take today to ensure that the spaces in your home are clean and clear of pollution and allergens.

Start today. It's time to take charge of your health and wellness.

For more information about indoor air wellness, please visit: www.allergymsai.org

For more information about the Indoor Wellness Programme, please visit www.nipponpaint.com.my/indoorwellness



“Wellness Begins At Home”

Cheat Sheet



Living Room



1. Vacuum and mop the area two times a week or more.



2. Daily vacuuming is recommended if there are pets at home.



3. Install air purifiers with a High-Efficiency Particulate Air (HEPA) filter to better eliminate dust.



4. Air out new furniture containing VOC materials (fabric and wood) for a week before use.



5. Choose coatings with anti-virus and anti-bacteria properties.



Bedroom



1. Vacuum and mop the floors twice a week.



2. Wipe the blades of the ceiling fan once a week.



3. Use natural, toxin-free carpet fresheners instead of artificially-scented sprays.



4. Snakes plants and golden pothos are great for increasing oxygen levels in the air.



5. Choose coatings that are odourless with anti-formaldehyde characteristics.



Bathroom



1. Clean the bathroom walls and floors at least twice a week.



2. Install exhaust fans to reduce humidity.



3. Store toiletries within an enclosed cabinet to prevent the growth of bacteria.



4. Carry out regular plumbing checks to avoid water leakages.



5. Paint tiles with coatings that are mould-resistant and non-toxic.



Kitchen



1. Mop the kitchen floor daily with hot, soapy water.



2. Use the exhaust or range hood when cooking.



3. Install smoke or exhaust fans for better ventilation.



4. Clear the garbage daily to prevent the growth of bacteria.



5. Choose coatings with good stain washability.