



CIPRIANI COLLEGE
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WORK MATTERS COLUMN

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Saharan Dust and Coping Mechanisms

The Environmental Management Authority (EMA) continues to issue warnings advising the population that the air quality is registered as unhealthy. Saharan Dust is warm and dry particles of sand and dust that are lifted into the atmosphere from the desert surface. It can travel thousands of kilometers, often reaching the Caribbean islands and has both a positive and negative impact on the environment. While it can fertilize the Amazon rainforest, it can cause respiratory issues and a reduction in air quality. This is common in Trinidad and Tobago, occurring throughout the year, but it is most frequent from April to October and usually peaks during the months of May through July.

In a number of articles posted for the year 2024, the EMA also warned of aggravation to the respiratory system such as asthma, bronchitis, allergies and eye irritation. It is measured by an Air Quality Index (AQI) which is an indicator developed by government agencies to communicate the quality of air. While a number of areas recorded good AQI ranging between 32-43, in a social media post via the EMA's Instagram page on Wednesday 14 th March, 2024 at 5 pm, the air quality was recorded as moderate, with an AQI of 66 in the city of Port of Spain.

When parts of Trinidad and Tobago are covered by Saharan dust plumes, it has the potential to cause issues with citizens, especially those who suffer from asthma, allergies and chronic obstructive pulmonary diseases such as emphysema and chronic bronchitis. According to Dr. David Corry, Professor of Medicine in the section of immunology, allergy, and rheumatology at Baylor, states that individuals with seasonal allergies may encounter increased symptoms, such as runny noses, scratchy throats, and itchy eyes.

There are a number of measures that can be taken

to alleviate the effects of Saharan Dust. Some of these include the wearing of a mask, staying indoors, installation of an air filtration system in homes which can help alleviate indoor exposure to dust particles. Importantly, staying indoors includes limited exertion and outdoor activities. If possible, it is best to remain indoors especially when dust concentration is high this is when the air quality becomes the unhealthiest.

Particulates can also enter your lungs and even your blood stream. In addition, protect your eyes, nose and mouth by using sunglasses as dust particles can irritate your eyes causing you to scratch them resulting in scraping off your cornea. The dust can also transport bacterial and fungal spores, so if your eyes become irritated be sure to have your saline drops nearby for quick resolution. Equally important, when a high concentration of dust is present, it is best to use a face mask (for example a N95) which is best to filter the small particles of dust.

Furthermore, you need to ensure that you have all your necessary medication on hand, including backup inhalers, allergen medication and saline drops because you may need to use this medication much more than before. You must also prepare your home in advance by sealing and keeping the entryways to windows and doors closed. Although we live in a Caribbean climate and might be tempted to let fresh air in, this practice can allow allergens to enter our homes which can accumulate on surfaces and irritate or accelerate our allergy systems. Additionally, we can protect ourselves by using mats at doors to prevent dust from entering, utilize fans or air condition units, but at the same time, we must remember to have the units cleaned often to avoid allergens from being trapped and recirculated into your homes.

We can also invest in portable air purifiers which can be placed in the rooms where we spend most of our time, thus removing dust from the air. Frequent dusting and vacuuming can also reduce Saharan dust and other allergens that collect on surfaces in your home or office. Also, it is notable that it is critical to wash sheets frequently as they can trap dust over time; and this can be minimized by washing them frequently in hot water to ensure a hygienic sleep environment.

It is also important to monitor Saharan dust alerts by keeping informed of the present levels, which will allow you to schedule your days accordingly in the event there is an upcoming outdoor activity. It is also important to create an ‘allergy-friendly’ area or room in your home, (like your bedroom) making it a safe environment and remembering to keep this door closed at all times to avoid re-entry of the harmful dust particles. If you or your family members suffer from seasonal allergies or any other respiratory diseases, it is best to consult or visit your family physician so they can provide expert personalized advice. Remember, while Saharan dust can be

challenging to avoid generally, these proactive steps and coping mechanisms can significantly reduce its impact on your allergies and respiratory diseases for you and your family members.

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