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BABY, IT'S COLD INSIDE

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We just had a baby, and now we are worried that our air-conditioned bedroom may be too cold for her to sleep in. Is air-conditioning safe for my baby?

Generally, yes, air-conditioning is safe for a baby.

Even with newborns, air-conditioning is preferable to a hot, airless, and humid environment. In fact, overheating should be avoided, and bedroom temperature should be as comfortable as possible. A properly-cooled, ventilated room with a comfortable temperature helps reduce the risk of Sudden Infant Death Syndrome.

The infant should be lightly clothed for sleep, and the bedroom temperature should be comfortable for a lightly-clothed adult. If the infant is dressed in a sleeper, a blanket is often not necessary.

HOW TO TELL WHETHER IT'S TOO COLD FOR THE BABY

Hypothermia—that's when someone loses body heat faster than the body can produce heat—should be suspected in any child with a history of prolonged exposure to a cold environment.

Possible signs of hypothermia in a child include:

- Shivering
- Goosebumps or piloerection
- Pallor, or pale-looking appearance
- Acrocyanosis (bluish hands and feet)

However, parents should note that young infants may have limited ability to shiver, and sometimes they could display paradoxical rosy cheeks instead of the usual signs of hypothermia.

In addition, children with hypothermia may appear clumsy, confused, and have trouble to speak clearly, all this while breathing faster than usual. Hypothermia can happen slowly and

cause confusion, so much so that sometimes an adult might not realize that they have it. Hence, parents need to be vigilant and watch out for signs in their babies.

DON'T PLACE THE BABY DIRECTLY UNDER AN AIR-CONDITIONER!

Being directly in an air stream is not always a good thing. Air conditioning can increase evaporation from the skin and membranes, causing dryness. Dry skin and dry eyes can be quite uncomfortable.

HOW TO GET THE MOST BENEFITS OUT OF AIR-CONDITIONING WHILE REDUCING POTENTIAL RISKS AND HAZARDS

THE PROS AND CONS OF AIR-CONDITIONING

Studies have found that the use of air-conditioners in homes was associated with a 15-fold increased risk of a near-fatal asthma attack. However, it is important to note that these findings were unlikely to be due to air conditioning alone—they could be due to a build-up of pollutants and allergens in the homes of people that regularly use air-conditioners.

On the other hand, studies also show that people living in households without air-conditioning are at

increased risk of mold sensitization, which contributes to coughs and colds. This is because the lack of air-conditioning tends to leave the room humid, which in turn can lead to the growth of mold and fungi—especially in the Malaysian climate!

THE IMPORTANCE OF VENTILATION

Ventilation refers to the rate of fresh air finding its way into and moving around a room, replacing stale air. Air conditioning is not the same thing as ventilation, as it merely cools the air already present in the room.

Lower ventilation rates in an air-conditioned room will result in lower rates of outdoor pollutants finding their way in, but at the same time contribute to higher concentrations of occupant-related pollutants in the room.

Studies on children in daycare centres with natural ventilation but without air-conditioning revealed that these children have lower prevalence of asthma, rhinitis, wheezing, and allergy, as well as respiratory symptoms.

Meanwhile, children in daycares with air-conditioning but no natural ventilation have higher prevalence of severe phlegm and cough symptoms,

as well as illnesses affecting the lower respiratory tract. This is because air-conditioned environments have significantly lower air change rates when compared to naturally-ventilated environments.

Hence, good ventilation needs to go hand in hand with the use of air-conditioners. High ventilation rates lower the concentrations of indoor pollutants such as carbon dioxide and human-related bacterial and viral concentrations. This in turn decreases the possibility of transmission of infectious respiratory diseases among the occupants of the room.

GOOD MAINTENANCE OF AIR-CONDITIONERS

Poor maintenance of air-conditioners can increase the risk of soiling and moisture in the ventilation system, with resulting growth and proliferation of potentially harmful microorganisms in the air-conditioners. These biological agents spread allergens, irritants, toxins, etc through the ventilation system. Many of these substances have been associated with allergic rhinitis symptoms among children. However, do bear in mind that some asthmatic children may be sensitive to cold environment too.

IMPROVING VENTILATION

1. Leave the windows open frequently, especially when there are minimal or no outdoor pollutants.
2. Use fan-assisted cooling strategies such as ceiling fans.
3. Allow for adequate internal airflow between rooms. Whenever possible, interior doors should be designed to be open to encourage whole-building ventilation.
4. Air is always sucked towards an area in your home where there is lower air pressure. That is why ideally, there should be openings (windows, grills, louvers, etc) on at least 2 sides of a room, on either opposite or adjacent walls. This allows for cross ventilation and ensures that you have a steady inflow and outflow of fresh air that will keep your home comfortable.