3rd Hand Smoke

The unseen killer in your home

Interview with Prof Philip Eng

We've all heard about 1st and 2nd hand smoke. But did you know that 3rd hand smoke can be just as lethal to your loved ones as the other two? Surprisingly, this fact is not common knowledge amongst many chain smokers and their families. Ezyhealth & Beauty decided to ask one of Singapore's most well-known Respiratory Physicians, Prof Philip Eng, about the deadly effects of 3rd hand smoke. Prof Philip Eng is a Consultant Respiratory Physician with a private practice at Mount Elizabeth Medical Centre.

EHB: What exactly is 3rd hand smoke? How different is it from 2nd hand smoke?
Prof Eng: 3rd hand smoke was only first described a year ago. This was by the researchers from Massachusetts General Hospital Group led by Dr Johnathan Winikoff. They published an article in the Journal, Pediatrics.

Second hand smoke is a combination of the mainstream smoke that a smoker exhales plus the sidestream smoke that comes from the burning end of a lighted cigarette. Volume for volume, sidestream smoke is more hazardous than mainstream smoke because it is largely unfiltered.

EHB: What are the negative effects of 3rd hand smoking? Is there a particular group that would suffer the most impact?
Prof Eng: Winikoff and colleagues gave the name "third hand smoke" to describe the toxic particles that settle in furniture and clothing that has been exposed to cigarette smoke.

Hence, long after the smoker has doused the cigarette, odours and chemicals remain in the room, permeating into surfaces like toys, furniture and clothing. The toxins are cumulative and not easily removed.

Conceptually, the smoke may react with paints and form even more toxic chemicals. The harm could be particularly accentuated for young children, because as they crawl around, they touch surfaces and have a tendency to put their hands in their mouth after that.

These are early days and I have no doubt that more research in the coming days on the dangers of 3rd hand smoke will be more revealing.

EHB: How does living in an urban environment with air pollution (e.g. haze) add to the damage done by 3rd hand smoking?
Prof Eng: The dangers of smoking are additive when combined with environmental pollution. Studies show that the prevalence

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of lung cancer is much higher in urban metropolitan cities that have a higher pollution levels given the same level of smoking prevalence. Recognising this, many cities are now renewing efforts to reduce air pollution levels by limiting traffic and the burning of crops and wastes. The city of Beijing demonstrated this to the world when they limited the traffic prior to the Summer Olympic Games in Aug 2008. In addition, the city wide ban on smoking probably helped.

EHB: What are the recommended smoking cessation methods? How effective are they? Are there any methods that are more effective for elderly smokers or those who had smoked for decades?

Prof Eng: Current accepted smoking cessation techniques are largely a combination of 2 techniques, pharmocotherapy and behavior therapy (counselling). Counselling involves various aspects but essentially would be targeted at helping the smoker to recognize the perils of smoking and to help the person walk through the process of quitting and recognizing the effects of quitting. Various pharmacotherapies are available but the 2 most successful modalities are nicotine replacement therapy (NRT) and a drug called Champix. NRT can be in the form of patches, gum or inhaler and they work by slowly weaning the person off Nicotine. Champix is a tablet that is usually taken for 3 months, and it works by blocking the nicotine receptors in the brain, hence reducing the release of the feel good hormone called dopamine. Present data shows that Champix is superior to NRT with some studies showing up to 50% quit rate at 6 months, a level never seen before with any other therapy.

Other modalities like acupuncture, hyposis and cold turkey have been tried with poor levels of success that are not too dissimilar from placebo treatment. ♥

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