

Miscellaneous

Cigarettes and I

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My early knowledge on cigarettes may be started to the time I was student at Brompton Chest Hospital in London in 1953, and subsequently at Bellevue Hospital in New York and at the Faculty of Medicine Siriraj Hospital in Bangkok. As a chest physician, I gained specialist knowledge of and experience with diseases caused by cigarette smoke, namely chronic bronchitis, pulmonary emphysema and lung cancers.

While working at Siriraj Hospital, I started the Smokers' Clinic to help addicts stop smoking. It was a total failure as they stopped smoking cigarettes only when they died. Of course, over the years I had tried many methods to help smokers to quit their habit. For instance, the strategy of getting smokers to take nicotine chewing gum failed to help them quit smoking; instead, the smokers gained a greater appreciation for their consequently higher intake of nicotine.

It is undeniable that regulations as the primary cause of today's lowered smoking rates. Those regulations include taxation, age restriction for purchasing and marketing tobacco products, graphic health warnings, and efforts to reduce public smoking. Recently, a hypothesis focusing upon tobacco harm reduction sounds logical and hopeful in respect of avoiding drastic lung disease development as well as malignancies of various vital organs. It is another choice for smokers, i.e. switching to the smoke-free cigarette powered by a rechargeable battery that is designed to heat tobacco leaf instead of burning. Therefore, the chemical contents in an aerosol that is not smoke are inhaled. Besides electronic cigarettes also provide a coping ritual associated with smoking gestures e.g., the hand-to-mouth action of smoking. For these reasons electronic cigarette, the heat not burn product is now perceive by users as a substitute for smoking.

There are recent articles, namely, "A comparative *in vitro* toxicity assessment of electronic vaping product e-liquids and aerosols with tobacco cigarettes smoke" by R.

Wieczorek, et al, in *Toxicology in Vitro* 2020 (<https://doi.org/10.1016/j.tiv.2020.104866>) and “Free Radical Production and Characterization of Heat-Not-Burn Cigarettes in comparison to Conventional and Electronic Cigarettes” by Zachary T Bitzer, and colleagues in *Chemical Research in Toxicology*, May 20, 2020 (<https://doi.org/10.1021/acs.chemrestox.0c00088>). Both papers disclosed that the conventional cigarettes, which its burning cone reached temperatures of >900 degrees Celsius, producing numerous toxicants and significant levels of highly reactive free radicals, while the electronic heat-not-burn cigarettes below the temperature of 250-350 degrees Celsius potentially limiting the production of combustion-related toxicants by the conventional cigarettes.

Documents:

1. Bovornkitti S, et al. Smokers' Clinic. *Siriraj Med Gaz* 1994; 18:56-60.
2. Bovornkitti S, et al. A smoking cessation technique: taking out a painful thorn with another thorn. *Royal Institute Gaz* 1994; pp.13-14.
3. Bovornkitti S. About cigarettes. *TMJ* 2020;20(2):191.
4. Bovornkitti S. Beyond Regulation is harm Reduction Efforts. *TMJ* 2020; 20(3):259.
5. Bovornkitti S. Vaping: Benefits outweigh the risks. *AMJAM* <https://asianmedjam.Com/index.php/amjam/article/view/328/290>.
6. Bovornkitti S. Regulation of Electronic Cigarettes in Thailand. *KUHJ* 2024; 5(4):351-2.