

MEDICAL PHILATELY

Sneezing – Physiological Facts and Beliefs

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**Asthma, Allergy and sneeze.
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Sneeze is an abrupt, convulsive and audible expulsion of air from lungs through the nose and mouth. It is semi-autonomous in nature, usually caused by foreign particles irritating the nasal mucosa (sternutation). Many do not realize that during sneeze one automatically close the eyes. It may first come to their notice while driving a car and rarely may even cause an accident at high speed.

The function of sneezing is to expel mucus containing foreign particles or irritants and cleanse nasal cavity. During sneeze, the soft palate and palatine uvula depress while the back of the tongue elevates to partially close the mouth passage so that ejected air may be expelled through nose, but considerable amount of air is usually expelled from mouth. Sneezing does not occur during REM sleep because of accompanied atonia. Many persons wake up from their sleep for the purpose of sneezing with a partially awake state at minimum.

Sneezing typically occurs when sufficient foreign particles or stimuli like light (photic reflex), cold air, large meal, infection etc. stimulate nasal mucosa. They trigger the release of histamines which irritates nerve cells in nose. Signals are then sent to the brain



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through trigeminal nerve network which in turn activate pharyngeal and tracheal muscles, resulting in powerful release of air with bio-particles at a speed of 156 Kms. Sneezing reflex centers are located in brain stem along ventro-medial part of the spinal trigeminal nucleus, lateral reticular formation. The sneezing reflex involves contraction of number of different muscle group through the body. Other than irritating foreign particles, allergens, sinus nerve stimulation and photic sneezing reflex (exposure to bright light) may stimulate sneezing. Photic sneezing reflex is an Autosomal dominant trait, affecting 18-35% of human population.

Rarer triggers are full stomach sneezing reflex (satiety) and rarely initial stage of sexual arousal; reason being that nose, like genitals contain erectile tissue. The phenomena may arise due to cross connections in the autonomic nervous system regulating a number of functions including

genital erection during arousal.

Snuff is ground tobacco leaf stalk perfumed and taken by sniffing up the nose- a form of tobacco addiction, introduced on the continent in 16th Century. Its popularity quickly spread after the monarchs and snuff boxes became a status symbol.

While sneezing is generally harmless in healthy individuals, the infectious aerosol can produce 40,000 droplets. Their spread can be limited by holding the forearm or inside of the elbow in front of mouth during sneezing. Presently this practice is considered inappropriate since it promotes spreading viruses such as H1N1 through human contact and commonly touched objects.

Various beliefs have survived through centuries. Today if someone is asserting something and the listener sneezes promptly, the person responds with "Very true" or "God bless you". In some cultures it is perceived as a sign that someone was remembering the sneezer at that very moment. Preventive measures to be tried are: The deep exhalation of air in the lungs, holding the breath while counting ten or gently pinching the bridge of the nose for several seconds. Some people find sneezes to be pleasurable and do not wish to prevent them.

Stamps courtesy Dr. J.V. Pai-Dhungat, Former Professor of Medicine, BYL Nair Ch. Hospital, Mumbai, Maharashtra.

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