



# The Impact of Tonsillectomy Upon Respiratory Tract Infections

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The incidence of oropharyngeal cancer, which incorporates cancers arising from the tonsils, oropharynx, pharynx, is increasing globally, especially in younger age groups, driven mostly by sexually transmitted human papillomavirus (HPV) infection (1).

For example, 77% of tonsil cancers in Denmark, occurring between 2000 and 2010, were associated with HPV. Currently, ablation for hypertrophic tonsils and continual rubor has lost antecedently control general acceptance (2).

A population based study of 1.2 million patients suggested that people, who have their tonsils or adenoids removed, before the age of nine years are at higher risk for respiratory infections and allergic sicknesses, for as long as the age of 30 years old (2, 3).

It has been found that tonsillectomy is related to a nearly tripled threat of upper respiratory tract diseases, and that adenoidectomy becomes related to doubled hazard of chronic obstructive pulmonary disease and upper respiratory tract diseases, and almost doubled chance of conjunctivitis (4).

Physicians frequently get rid of adenoids and tonsils to treat recurrent tonsillitis or middle ear infections, therefore, knowing the longer-term effects of these surgeries is essential due to the fact that adenoids and tonsils are elements of the immune system and have roles in pathogen detection and defense, and are commonly removed at ages when the development of the immune system is sensitive (3).

Byars et al. (4), analyzed information from the Danish birth registry, which included 1,189,061 individuals for health consequences until the age of 30 years old. Individuals included in the study were born during years 1979 and 1999 and were accompanied until year 2009. Some 17,460 individuals had had their adenoids removed, 11,830 had their tonsils removed, and 31,377 underwent an adenotonsillectomy. The remaining contributors in the sample

served as controls.

While the investigators calculated the long-term risks of 28 different diseases among each group, they discovered that tonsillectomy is associated with nearly a three-fold relative risk (RR) of illnesses of the upper respiratory tract as compared with children, who had not had their tonsils removed (4).

Also, whilst investigators analyzed all 28 disease groups, “there have been small however significant increases in RR for 78% of them”, as the investigators state. For instance, the RR for otitis media increased by two to five folds, whereas the danger for sinusitis after adenotonsillectomy multiplied by using 68% (4).

However, surgical removal of the tonsils and the adenoids became no longer unilaterally associated with increases in worse health consequences. Adenoidectomy, as an example, decreased the relative chance for sleep problems by 70%. Not surprisingly, both surgeries significantly reduced the risk for tonsillitis and chronic tonsillitis by approximately 50% to 90% (4).

Therefore, it seems that due to widespread use of HPV vaccines in developed countries and significant reduction in the types of cancer following vaccine administration, tonsillectomy is not recommended to prevent cancer. Therefore, in order to prevent relevant complications, such as COPD and conjunctivitis, it is necessary to prevent tonsillectomy without indication.

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