

The objective of the first part of the thesis was to estimate risk and protective factors on lung cancer risk in females, especially to study the differences in the impact of diet and physical exercise on lung cancer risk in female nonsmokers vs. smokers, and reveal interactions, if any. In a hospital based case-control study, data collected by in-person interviews from 569 female lung cancer cases and 2120 controls were analyzed using unconditional logistic regression stratifying by appropriate factors. To investigate the role of tobacco and some other known or suspected factors responsible for the risk of developing adenocarcinoma of the lung, and to compare with other cell types (squamous-, small- and large-cell cancers) in Czech women, we conducted a case-control study, this is described as a second part of the thesis. Data collected by personal interviews from 145 cases of adenocarcinoma of the lung, 221 lung cancer cases of other cell types, and 1624 controls were analyzed using unconditional logistic regression.