



Title	Vitamin K intake and risk of lung cancer: the Japan Collaborative Cohort Study
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# 論文内容の要旨

## Synopsis of Thesis

氏 名 Name	YAN FANGYU
論文題名 Title	Vitamin K intake and risk of lung cancer: the Japan Collaborative Cohort Study (ビタミンKの摂取量と肺がんリスク : JACC研究)
<p>論文内容の要旨</p> <p>〔目 的(Purpose)〕</p> <p>Limited reports from human prospective studies investigated the possible role of vitamin K in the development of lung cancer although vitamin K's anticarcinogenic activities were verified from several in vitro and in vivo studies. We investigated the associations between total vitamin K intake from food and the development of lung cancer based on this large prospective cohort study.</p> <p>〔方法ならびに成績(Methods/Results)〕</p> <p>Methods: A validated food frequency questionnaire was used to examine vitamin K intake among 42,166 (16,341 men and 25,825 women) at the Japan Collaborative Cohort Study's baseline (1988-1990). Hazard ratios (HRs) and 95% confidence intervals (CIs) of incident lung cancer were calculated using the Cox proportional hazard regression method based on vitamin K consumption quartiles.</p> <p>Results: 430 cases (308 males and 122 women) of lung cancer were documented during a total of 564,127 person-years of follow-up (median follow-up= 14.6 years). Vitamin K consumption was shown to be inversely related to lung cancer risk; the multivariable HR (95 % CI) for the highest vs. lowest quartiles was 0.67 (0.46-0.96; p for trend = 0.010). This relationship appears to be stronger in males [0.62 (0.40-0.96); p for trend=0.016] than in females [0.82 (0.42-1.61); p for trend=0.39] (p for interaction=0.012), and in ever smokers [0.57 (0.36-0.91); p for trend=0.006] than in never smokers [0.79 (0.40-1.55); p for trend=0.37] (p for interaction=0.30). The individuals' age, BMI, or alcohol consumption status had no effect on the observed connection.</p> <p>〔総 括(Conclusion)〕</p> <p>Vitamin K consumption reduces the risk of lung cancer. More research is needed to clarify the molecular processes behind this connection.</p>	

## 論文審査の結果の要旨及び担当者

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## 論文審査の結果の要旨

Although anticarcinogenic activities of vitamin K were verified from several in vitro and in vivo studies, there is limited epidemiological evidence on the possible role of vitamin K in the development of lung cancer. Then, she aimed to examine the association between vitamin K intake and the risk of lung cancer in the Japan Collaborative Cohort Study (JACC Study).

In the JACC Study, vitamin K intake was assessed with a validated food frequency questionnaire among 42,166 (16,341 men and 25,825 women) at baseline survey in 1988-1990. During a 14.6-year median follow-up, 430 lung cancer cases (308 men and 122 women) were identified.

She found that greater vitamin K intake was associated with a lower risk of lung cancer in men but not women. The inverse association was more evident in ever smokers than never smokers but did not vary by age, BMI, and alcohol intake.

This study is the first to show sex-specific associations between dietary vitamin K and the risk of lung cancer in Asia. This study filled in the research gap on the potential impact of vitamin K in preventing lung cancer and provided evidence from Asian populations.

We think she is deserving of a Ph.D. Degree.