

**TOBACCO SMOKING AND RISK OF 36 CARDIOVASCULAR DISEASE
SUBTYPES: FATAL AND NON-FATAL OUTCOMES IN A LARGE PROSPECTIVE
AUSTRALIAN STUDY**

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Additional File 1: Brief systematic review of smoking and cardiovascular disease

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Description of methods:

To summarise the worldwide evidence relevant to our findings on the relation of current and past tobacco smoking to cardiovascular disease, we focused initially on large-scale studies and evidence from contexts similar to Australia [Additional file 1: references 1-4] as well as the INTERHEART international study [Additional file 1: reference 5]. For outcomes that were not reported in these large-scale studies, we conducted a systematic search of published evidence to identify any existing larger epidemiological studies examining the relation of smoking to the outcomes of interest. Manual searching of reference lists was undertaken to locate additional publications. Reference lists of all included studies were searched, as well as studies included in relevant recent systematic reviews and meta-analyses [Additional file 1: references 6-11] and a small number of narrative reviews [Additional file 1: references 12-13].

Interpretation:

The list of identified studies is given in this section, below. The results of the studies identified in the systematic review are compared with those of our study, in the discussion section of the main paper. Studies comparing the CVD risks of current smokers with those who have never smoked are emphasised, as these are the comparators in our study. Studies comparing risks in current smokers with people who are not current smokers - grouping past and never smokers together - are used only where there was a lack of evidence using never smokers as the reference group; it should be noted that this is likely to attenuate the relative risk.

Outcomes included in systematic search:

- Atrial fibrillation and flutter
- Cardiomyopathy
- Paroxysmal tachycardia/other arrhythmias
- Heart failure
- Pulmonary embolism
- Thrombophlebitis/phlebitis
- Nonrheumatic mitral valve disorders
- Nonrheumatic aortic valve disorders

Outcomes not included in systematic search, along with reason for non-inclusion:

- Atherosclerosis, aortic aneurysm/dissection, arterial embolism/thrombosis, other peripheral vascular diseases (reported in large-scale studies)
- Cerebrovascular disease outcomes (reported in large-scale studies)
- Ischaemic heart disease outcomes (reported in large-scale studies)
- Vascular disorders of intestine (reported in large-scale studies)
- High blood pressure (reported in large-scale studies)
- Other pulmonary heart diseases (too non-specific)
- Cardiac arrest (too non-specific)
- Complications and ill-defined descriptions of heart disease (too non-specific)

Inclusion criteria:

- Large-scale epidemiological studies in the general population that report at least 100 events for the outcome(s) of interest
- Present a relative risk, hazard ratio, or odds ratio for the relation of **current smoking** to the outcome(s) of interest (fatal and/or non-fatal)

Exclusion criteria:

- Studies in which current and past smokers are grouped together
- Studies of clinical cohorts, including patients with particular diseases, pregnant women, those using specific medications, or those undergoing specific procedures

- Studies in which the clinical end point (outcome) is not clearly defined

Search strategy:

smok* OR tobacco OR cigarette OR cigarettes

AND

“atrial fibrillation” OR “atrial flutter” OR tachycardia OR tachyarrhythmia OR arrhythmia OR dysrhythmia OR cardiomyopathy OR “paroxysmal tachycardia” OR “supraventricular tachycardia” OR “ventricular tachycardia” OR “heart failure” OR “congestive cardiac failure” OR “ventricular failure” OR “ventricular dysfunction” OR “systolic dysfunction” OR “cardiac insufficiency” OR “pulmonary embolism” OR “venous thromboembolism” OR thrombophlebitis OR phlebitis OR “mitral” or “aortic valve” or “aortic stenosis” or “aortic insufficiency”

AND

“risk factor” OR “risk factors” OR predictor OR predictors OR cohort OR prospective OR case-control

Databases:

- PubMed
- Embase

Studies identified from the search:

In total, 78 relevant publications met inclusion criteria for the systematic review. Initial database searches identified 6798 unique papers, and a further 51 potentially relevant papers were identified from reference list searching. 6271 papers were excluded based on title screening, 275 based on abstract screening, and 223 based on full-text screening.

The final list of included studies is shown in the reference list at the end of this Additional file 1 material [Additional file 1: references 14-91]. References cited in the main manuscript are listed alphabetically within the group in which they were cited and groups are listed in order of group citation in the main manuscript. These are followed by uncited references [61-91], listed alphabetically.

Additional file 1 References

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