

**Table S1. Age- and multivariate-adjusted RRs for the association between smoking and risk of PsA among participants with self-reported psoriasis**

	Cases	Person-years	Age-adjusted RR (95% CI)	Multivariate-adjusted RR* (95% CI)
<b>Reference: Never smokers</b>	76	4,516	1.00	1.00
<b>Smoking status</b>				
<b>Past smokers</b>	46	2,081	1.25 (0.83-1.90)	1.41 (0.93-2.16)
<b>Current smokers</b>	35	1,423	<b>1.66 (1.05-2.60)</b>	<b>1.71 (1.07-2.73)</b>
Quantity, 1-14 cigarettes/day	12	550	1.32 (0.65-2.65)	1.33 (0.65-2.73)
Quantity, ≥15 cigarettes/day	23	873	<b>1.89 (1.12-3.18)</b>	<b>1.98 (1.15-3.42)</b>
<i>P</i> for trend			<b>0.004</b>	<b>0.003</b>
<b>Duration</b>				
Duration, <25 years	55	2,869	1.31 (0.89-1.92)	1.44 (0.97-2.14)
Duration, ≥25 years	26	636	<b>1.73 (1.02-2.91)</b>	<b>1.78 (1.03-3.05)</b>
<i>P</i> for trend			<b>0.015</b>	<b>0.006</b>
<b>Pack-years</b>				
Pack-years, <20	44	2,503	1.18 (0.78-1.79)	1.27 (0.83-1.93)
Pack-years, ≥20	37	1,001	<b>1.87 (1.19-2.95)</b>	<b>2.08 (1.30-3.32)</b>
<i>P</i> for trend			0.057	<b>0.036</b>

\* Adjusted for age (continuous variable), body mass index (<18.5, 18.5-24.9, 25-29.9, 30-34.9 or ≥35 kg/m<sup>2</sup>), alcohol drinking (no, <4.9, 5.0-9.9, 10-14.9, 15-29.9 or ≥30.0 g/d), vigorous physical activity (metabolic equivalent hours/wk, in quintile).

**Table S2. Selected characteristics of all confirmed psoriasis and PsA cases before and after 1991**

<b>Characteristics</b>	<b>Psoriasis</b>	<b>PsA</b>
	<b>N=981</b>	<b>N=324</b>
<b>Age, year, mean (SD)</b>	36.6 (4.7)	37.5 (4.5)
<b>Psoriasis diagnosis age, year, mean (SD) *</b>	45.9 (6.0)	45.3 (6.7)
<b>Body mass index, kg/m<sup>2</sup>, mean (SD)</b>	25.1 (5.3)	28.9 (8.1)
<b>Alcohol intake, g/d, mean (SD)</b>	3.7 (7.2)	3.4 (10.6)
<b>Vigorous physical activity, metabolic equivalent hours/wk, mean (SD)</b>	11.6 (21.7)	11.2 (17.9)
<b>Smoking pack-years, mean (SD)</b>	5.5 (8.5)	7.5 (10.3)
<b>Smoking duration, mean (SD)</b>	6.9 (8.9)	8.4 (10.1)

\* Only for psoriasis/PsA diagnosed after 1991. We do not have the diagnosis year of those before 1991.

**Table S3. Age- and multivariate-adjusted RRs for the association between smoking and risk of PsA in a case-control analysis**

	Controls (psoriasis) N=981	Cases (PsA) N=324	Age-adjusted RR (95% CI)	Multivariate-adjusted RR* (95% CI)
<b>Reference: Never smokers</b>	554	172	1.00	1.00
<b>Smoking status</b>				
<b>Past smokers</b>	272	81	0.91 (0.67-1.23)	0.95 (0.69-1.31)
<b>Current smokers</b>	155	71	<b>1.41 (1.02-1.97)</b>	<b>1.49 (1.05-2.11)</b>
Quantity, 1-14 cigarettes/day	62	25	1.25 (0.76-2.06)	1.37 (0.82-2.32)
Quantity, ≥15 cigarettes/day	93	46	<b>1.52 (1.02-2.26)</b>	<b>1.56 (1.03-2.36)</b>
<i>P</i> for trend			<b>0.029</b>	<b>0.028</b>
<b>Duration</b>				
Duration, <25 years	384	125	1.02 (0.78-1.33)	1.08 (0.82-1.44)
Duration, ≥25 years	43	27	1.69 (0.99-2.86)	1.67 (0.96-2.91)
<i>P</i> for trend			0.061	<b>0.037</b>
<b>Pack-years</b>				
Pack-years, <20	350	104	0.94 (0.71-1.24)	1.00 (0.74-1.34)
Pack-years, ≥20	77	48	<b>1.78 (1.18-2.68)</b>	<b>1.81 (1.17-2.79)</b>
<i>P</i> for trend			<b>0.005</b>	<b>0.005</b>

\* Adjusted for age (continuous variable), body mass index (<18.5, 18.5-24.9, 25-29.9, 30-34.9 or ≥35 kg/m<sup>2</sup>), alcohol drinking (no, <4.9, 5.0-9.9, 10-14.9, 15-29.9 or ≥30.0 g/d), vigorous physical activity (metabolic equivalent hours/wk, in quintile).