

**Web Table 1.** Age- and multivariate-adjusted relative risks (RRs) of psoriasis by smoking status in the Nurses' Health Study (1996-2008), the Nurses' Health Study-II (1991-2005), and Health Professionals' Follow-Up Study (1986-2006): additional analyses adjusting for depressive symptoms and antidepressive drug use

	Cases	Person-years	Multivariate, adjusted <sup>a</sup>		Multivariate, adjusted <sup>b</sup>		Multivariate, adjusted <sup>c</sup>	
			RR	95% CI	RR	95% CI	RR	95% CI
<b>NHS</b>								
<b>Never smokers</b>	295	352,829	1.00		1.00		1.00	
<b>Past smokers</b>	395	336,673	1.32	1.13, 1.54	1.32	1.13, 1.54	1.31	1.12, 1.53
<b>Current smokers</b>	114	63,002	2.26	1.81, 2.82	2.24	1.79, 2.79	2.23	1.78, 2.78
Current smokers, 1- 14/d	54	31,157	2.19	1.63, 2.94	2.17	1.62, 2.91	2.17	1.61, 2.90
Current smokers, 15-24/d	43	24,337	2.22	1.60, 3.07	2.20	1.59, 3.04	2.19	1.58, 3.03
Current smokers, $\geq 25/d$	17	7,508	2.65	1.61, 4.34	2.60	1.59, 4.26	2.60	1.59, 4.27
$P_{\text{trend}}$			<0.0001		<0.0001		<0.0001	
<b>NHS II</b>								
<b>Never smokers</b>	629	868,253	1.00		1.00		1.00	
<b>Past smokers</b>	332	311,088	1.40	1.22, 1.61	1.40	1.22, 1.60	1.39	1.21, 1.59
<b>Current smokers</b>	163	129,844	1.80	1.51, 2.14	1.78	1.49, 2.12	1.77	1.49, 2.11
Current smokers, 1-14/d	65	62,783	1.49	1.15, 1.92	1.47	1.14, 1.91	1.46	1.13, 1.89
Current smokers, 15- 24/d	66	47,813	2.00	1.55, 2.58	1.97	1.53, 2.55	1.97	1.53, 2.54
Current smokers, $\geq 25/d$	32	19,248	2.33	1.63, 3.33	2.29	1.60, 3.37	2.27	1.59, 3.25
$P_{\text{trend}}$			<0.0001		<0.0001		<0.0001	

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**HPFS**

<b>Never smokers</b>	200	230,555	1.00	-		1.00	
<b>Past smokers</b>	250	188,812	1.47	1.22, 1.79	-	1.45	1.20, 1.76
<b>Current smokers</b>	32	22,939	1.71	1.17, 2.50	-	1.69	1.15, 2.47
Current smokers, 1- 14/d	17	10,852	1.92	1.16, 3.16	-	1.89	1.14, 3.11
Current smokers, 15- 24/d	9	6,835	1.61	0.82, 3.15	-	1.59	0.81, 3.11
Current smokers, $\geq 25/d$	6	5,251	1.40	0.62, 3.18	-	1.39	0.61, 3.14
<i>P</i> <sub>trend</sub>			0.04			0.05	

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Abbreviations: CI, confidence interval; HPFS, Health Professionals' Follow-Up Study;

NHS, Nurses' Health Study; NHS II, Nurses' Health Study II; RR, Relative Risk.

<sup>a</sup> Adjusted for age (continuous variable), race (Caucasian, Asian, Hispanic or African American), body mass index (<18.5, 18.5-24.9, 25-29.9, 30-34.9,  $\geq 35 \text{ kg/m}^2$ ), alcohol drinking (no, <4.9, 5.0-9.9, 10-14.9, 15-29.9 or  $\geq 30.0 \text{ g/d}$ ), physical activity (metabolic equivalent hours/wk, quintile).

<sup>b</sup> Adjusted for the abovementioned variables, plus level of depressive symptomatology by Mental Health Index score (86-100, 76-85, 53-75, or 0-52) for NHS and NHS II.

<sup>c</sup> Adjusted for the abovementioned variables in <sup>a</sup>, plus anti depressive drugs use (never, past, or current).

**Web Table 2.** Age- and multivariate-adjusted RRs of psoriasis by pack-years of smoking in the Nurses' Health Study (1996-2008), the Nurses' Health Study-II (1991-2005), and Health Professionals' Follow-Up Study (1986-2006): additional analyses adjusting for depressive symptoms and antidepressive drug use

Cases	Person-years	Multivariate, adjusted <sup>a</sup>		Multivariate, adjusted <sup>b</sup>		Multivariate, adjusted <sup>c</sup>	
		RR	95% CI	RR	95% CI	RR	95% CI
<b>NHS</b>							
Never smokers	295	352,829	1.00		1.00		1.00
Pack-years, <10	115	133,475	1.03	0.83, 1.28	1.03	0.83, 1.28	1.02
Pack-years, 10-24	119	113,660	1.19	0.96, 1.48	1.19	0.96, 1.48	1.18
Pack-years, 25-44	149	93,231	1.80	1.47, 2.20	1.79	1.47, 2.19	1.78
Pack-years, 45-64	81	42,409	2.11	1.64, 2.71	2.09	1.63, 2.68	2.07
Pack-years, ≥65	45	16,900	2.84	2.07, 3.91	2.82	2.04, 3.88	2.79
<i>P</i> <sub>trend</sub>			<0.0001		<0.0001		<0.0001
<b>NHS II</b>							
Never smokers	629	868,253	1.00		1.00		1.00
Pack-years, <10	174	202,479	1.20	1.02, 1.43	1.20	1.01, 1.42	1.20
Pack-years, 10-24	224	183,257	1.68	1.43, 1.96	1.67	1.43, 1.95	1.65
Pack-years, 25-44	84	50,487	1.97	1.56, 2.48	1.94	1.54, 2.45	1.93
Pack-years, 45-64	12	4,449	2.56	1.44, 4.56	2.51	1.41, 4.47	2.49
Pack-years, ≥65	1	261	2.93	0.41, 20.79	2.84	0.40, 20.17	2.87
<i>P</i> <sub>trend</sub>			<0.0001		<0.0001		<0.0001

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**HPFS**

Never smokers	200	230,555	1.00	-		1.00	
Pack-years, <10	60	46,570	1.45	1.09, 1.94	-	1.44	1.07, 1.92
Pack-years, 10-24	101	87,463	1.32	1.03, 1.68	-	1.30	1.02, 1.66
Pack-years, 25-44	78	55,374	1.59	1.21, 2.08	-	1.57	1.20, 2.06
Pack-years, 45-64	32	17,225	2.11	1.44, 3.10	-	2.08	1.41, 3.05
Pack-years, ≥65	11	5,117	2.28	1.23, 4.24	-	2.25	1.21, 4.18
<i>P</i> <sub>trend</sub>			<0.0001			<0.0001	

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Abbreviations: CI, confidence interval; HPFS, Health Professionals' Follow-Up Study;

NHS, Nurses' Health Study; NHS II, Nurses' Health Study II; RR, Relative Risk.

<sup>a</sup> Adjusted for age (continuous variable), race (Caucasian, Asian, Hispanic or African American), body mass index (<18.5, 18.5-24.9, 25-29.9, 30-34.9, ≥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), physical activity (metabolic equivalent hours/wk, in quintile).

<sup>b</sup> Adjusted for the abovementioned variables, plus level of depressive symptomatology by Mental Health Index score (86-100, 76-85, 53-75, or 0-52) for NHS and NHS II.

<sup>c</sup> Adjusted for the abovementioned variables in <sup>a</sup>, plus anti depressive drugs use (never, past, or current).

**Web Table 3.** Age- and multivariate-adjusted RRs of psoriasis by smoking duration in the Nurses' Health Study (1996-2008), the Nurses' Health Study-II (1991-2005), and Health Professionals' Follow-Up Study (1986-2006): additional analyses adjusting for depressive symptoms and antidepressive drug use

Cases	Person-years	Multivariate, adjusted <sup>a</sup>		Multivariate, adjusted <sup>b</sup>		Multivariate, adjusted <sup>c</sup>	
		RR	95% CI	RR	95% CI	RR	95% CI
<b>NHS</b>							
Never smokers	295	352,829	1.00		1.00		1.00
Duration, <10 years	50	73,803	0.81	0.60, 1.10	0.81	0.60, 1.10	0.81
Duration, 10-19.9 years	86	88,807	1.13	0.88, 1.43	1.12	0.88, 1.43	1.12
Duration, 20-29.9 years	102	79,502	1.45	1.15, 1.82	1.44	1.15, 1.81	1.43
Duration, ≥30 years	271	157,564	1.94	1.64, 2.30	1.92	1.62, 2.28	1.91
<i>P</i> <sub>trend</sub>			<0.0001		<0.0001		<0.0001
<b>NHS II</b>							
Never smokers	629	868,253	1.00		1.00		1.00
Duration, <10 years	52	60,344	1.21	0.91, 1.61	1.21	0.91, 1.60	1.20
Duration, 10-19.9 years	224	231,677	1.35	1.16, 1.58	1.35	1.15, 1.57	1.34
Duration, 20-29.9 years	153	118,082	1.80	1.50, 2.15	1.78	1.48, 2.13	1.77
Duration, ≥30 years	66	30,829	2.07	1.59, 2.69	2.04	1.56, 2.65	2.03
<i>P</i> <sub>trend</sub>			<0.0001		<0.0001		<0.0001
<b>HPFS</b>							
Never smokers	200	230,555	1.00		-		1.00

Duration, <10 years	68	62,442	1.24	0.94, 1.64	-	1.22	0.93, 1.62
Duration, 10-19.9 years	70	53,423	1.49	1.13, 1.96	-	1.47	1.11, 1.94
Duration, 20-29.9 years	56	46,386	1.36	1.01, 1.84	-	1.34	1.00, 1.82
Duration, ≥30 years	88	49,500	2.03	1.56, 2.64	-	2.00	1.53, 2.60
<i>P</i> <sub>trend</sub>			<0.0001			<0.0001	

Abbreviations: CI, confidence interval; HPFS, Health Professionals' Follow-Up Study;

NHS, Nurses' Health Study; NHS II, Nurses' Health Study II; RR, Relative Risk.

<sup>a</sup> Adjusted for age (continuous variable), race (Caucasian, Asian, Hispanic or African American), body mass index (<18.5, 18.5-24.9, 25-29.9, 30-34.9, ≥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), physical activity (metabolic equivalent hours/wk, in quintile).

<sup>b</sup> Adjusted for the abovementioned variables, plus level of depressive symptomatology by Mental Health Index score (86-100, 76-85, 53-75, or 0-52) for NHS and NHS II.

<sup>c</sup> Adjusted for the abovementioned variables in <sup>a</sup>, plus anti depressive drugs use (never, past, or current).

**Web Table 4.** Age- and multivariate-adjusted RRs of psoriasis by years since smoking cessation in the Nurses' Health Study (1996-2008), the Nurses' Health Study-II (1991-2005), and Health Professionals' Follow-Up Study (1986-2006): additional analyses adjusting for depressive symptoms and antidepressive drug use

	Cases	Person-years	Multivariate, adjusted <sup>a</sup>		Multivariate, adjusted <sup>b</sup>		Multivariate, adjusted <sup>c</sup>	
			RR	95% CI	RR	95% CI	RR	95% CI
<b>NHS</b>								
Never smokers	295	352,829	1.00		1.00		1.00	
Cessation, ≥40 years	49	47,299	1.11	0.81, 1.50	1.11	0.81, 1.50	1.10	0.81, 1.50
Cessation, 30-39 years	71	81,524	1.01	0.78, 1.31	1.01	0.78, 1.31	1.00	0.77, 1.30
Cessation, 20-29 years	81	70,767	1.30	1.01, 1.67	1.30	1.01, 1.66	1.28	1.00, 1.64
Cessation, 10-19 years	109	81,441	1.49	1.20, 1.87	1.49	1.19, 1.86	1.47	1.18, 1.84
Cessation, 6-9 years	41	25,292	1.85	1.33, 2.57	1.83	1.32, 2.55	1.82	1.31, 2.52
Cessation, 3-5 years	32	19,123	1.89	1.31, 2.73	1.88	1.30, 2.71	1.86	1.29, 2.69
Cessation, ≤2 years	12	11,228	1.28	0.72, 2.28	1.27	0.71, 2.26	1.26	0.71, 2.25
P <sub>trend</sub> <sup>d</sup>			<0.0001		<0.0001		<0.0001	
<b>NHS II</b>								
Never smokers	629	868,253	1.00		1.00		1.00	
Cessation, ≥40 years	0	39	-		-		-	
Cessation, 30-39 years	14	8,986	0.99	0.58, 1.70	0.99	0.58, 1.71	0.99	0.58, 1.71
Cessation, 20-29 years	79	74,649	1.12	0.88, 1.42	1.12	0.88, 1.42	1.11	0.87, 1.41
Cessation, 10-19 years	126	130,123	1.47	1.21, 1.79	1.47	1.21, 1.78	1.46	1.20, 1.77

Cessation, 6-9 years	39	41,270	1.38	1.00, 1.91	1.37	0.99, 1.90	1.37	0.99, 1.89
Cessation, 3-5 years	41	31,475	1.82	1.33, 2.50	1.81	1.32, 2.48	1.80	1.31, 2.47
Cessation, $\leq 2$ years	33	24,548	1.93	1.36, 2.74	1.91	1.35, 2.72	1.90	1.34, 2.70
$P_{\text{trend}}^{\text{d}}$			0.0003		0.0003		0.0003	
<b>HPFS</b>								
Never smokers	200	230,555	1.00		-		1.00	
Cessation, $\geq 10$ years	208	155,158	1.45	1.19, 1.78	-		1.43	1.17, 1.75
Cessation, 6-9 years	21	13,778	1.93	1.22, 3.04	-		1.91	1.21, 3.01
Cessation, 3-5 years	10	9,950	1.27	0.67, 2.42	-		1.25	0.66, 2.37
Cessation, $\leq 2$ years	11	9,716	1.45	0.78, 2.67	-		1.43	0.78, 2.64
$P_{\text{trend}}^{\text{d}}$			0.50				0.50	

Abbreviations: CI, confidence interval; HPFS, Health Professionals' Follow-Up Study; NHS, Nurses' Health Study; NHS II, Nurses' Health Study II; RR, Relative Risk.

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

<sup>b</sup> Adjusted for the abovementioned variables, plus level of depressive symptomatology by Mental Health Index score (86-100, 76-85, 53-75, or 0-52) for NHS and NHS II.

<sup>c</sup> Adjusted for the abovementioned variables in <sup>a</sup>, plus anti depressive drugs use (never, past, or current).

<sup>d</sup> Never smokers were excluded from the trend test.