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Dear Colleague:

On behalf of the Nurses' Health Study research group I am most grateful for the detailed information you have provided over the past 16 years. Your participation and that of over 120,000 other R.N.s has made this study the largest prospective investigation specifically directed to the health of women. Whether or not you are still active in nursing, your continued participation is extremely valuable to our further understanding of factors influencing the health of women.

The attached **very brief** questionnaire asks only for the most important information necessary for maintaining our records. We have made it as short as possible in the hope that you will take just a few minutes to complete the form. In addition, please note the space on the reverse side of the questionnaire to name someone to whom we might write in the event we ever lose touch with you.

In the past year we have reported that women taking postmenopausal estrogen therapy have reduced risk of cardiovascular disease⁽¹⁾, that women consuming coffee on a daily basis have increased risk of hip fractures⁽²⁾, that women with a history of diabetes are at increased risk of heart disease and stroke⁽³⁾. Further, regular physical activity is protective against the development of adult onset diabetes⁽⁴⁾.

Please complete and return the enclosed questionnaire at your earliest convenience. As always, information will be kept strictly confidential and used for medical statistical purposes only. Again, I would like to express my deepest gratitude for the contribution you have made to this study. Already these efforts have yielded much useful information, and we are confident that findings during the next several years will provide further important guidance for maintaining optimal health.

Sincerely,

Frank E. Speizer, M.D.
 Principal Investigator

1. N.Engl.J.Med. 1991; 325: 756-62
 2. Am.J.Clin.Nutr. 1991; 54: 157-63
 3. Arch.Int.Med. 1991; 151: 1141-47
 4. Lancet 1991; 338: 774-78

POSTMENOPAUSAL ESTROGEN THERAPY AND CARDIOVASCULAR DISEASE**Ten-year follow-up from the Nurses' Health Study**

The effect of postmenopausal estrogen therapy on the risk of cardiovascular disease remains controversial. We followed 48,470 postmenopausal women, 30 to 63 years old, who were participants in the Nurses' Health Study and who did not have a history of cancer or cardiovascular disease at baseline. During the 10 years of follow-up we documented 224 strokes, 405 cases of major coronary disease (nonfatal myocardial infarctions or deaths from coronary causes), and 1263 deaths from all causes.

Results. After adjustment for age and other risk factors, the overall relative risk of major coronary disease in women currently taking estrogen was 0.56; a 44% reduction in risk. The risk was significantly reduced among women with either natural or surgical menopause. We observed no effect of the duration of estrogen use independent of age. The findings were similar in analyses limited to women who had recently visited their physicians (relative risk, 0.45) and in a low-risk group (relative risk, 0.53). The relative risk for current and former users of estrogen as compared with those who had never used it was 0.89 for total mortality and 0.72 for mortality from cardiovascular disease. The relative risk of stroke when current users were compared with those who had never used estrogen was 0.97, with no marked differences according to type of stroke.

N Engl J Med 1991; 325:756-62.

PHYSICAL ACTIVITY AND INCIDENCE OF NON-INSULIN-DEPENDENT DIABETES MELLITUS IN WOMEN

The potential role of physical activity in the primary prevention of non-insulin-dependent diabetes mellitus (NIDDM) is largely unknown. We examined the association in the Nurses' Health Study. During 8 years of follow-up, we confirmed 1303 cases of NIDDM. Women who engaged in vigorous exercise at least once per week had an age-adjusted relative risk of NIDDM of 0.67 ($p < 0.0001$) compared with women who did not exercise weekly; this is a 33% reduction in risk. Family history of diabetes did not modify the effect of exercise, and risk reduction with exercise was evident among both obese and nonobese women. Our results indicate that physical activity may be a promising approach to the primary prevention of NIDDM.

LANCET 1991; 338:774-78.

RISK FACTORS FOR BASAL CELL CARCINOMA IN A PROSPECTIVE COHORT OF WOMEN

In a prospective study of self-reported demographic, constitutional, and lifestyle factors in relation to basal cell carcinoma of the skin, we followed a cohort of 73,366 nurses in the United States who were 34 to 59 years of age in 1980 and who had no previous skin or other cancer. In 4 years of follow-up, compared with women living in the Northeast, women residing in California and Florida were more likely to develop basal cell carcinoma. Compared with women having naturally dark brown hair, the age-adjusted relative risk of basal cell carcinoma was increased two-fold among women with red hair, 30% for women with blond or light brown hair, and was decreased 30% among women with black hair. Risk was positively associated in a dose-response manner both with tendency to sunburn as a child or adolescent and with lifetime number of severe and painful sunburns on the face or arms. These risk factors remained significant predictors of disease when included simultaneously in multivariate analyses. Cigarette smoking did not alter the risk of basal cell carcinoma. These prospective data emphasize the importance of sunlight, and skin response to sunlight, as determinants of basal cell carcinoma among women.

Ann Epidemiol 1991; 1:13-23.

NURSES' HEALTH STUDY - HARVARD MEDICAL SCHOOL

1. What is your date of birth? _____ / _____ / _____
MONTH DAY YEAR
2. Current Weight: _____ lbs.
3. Have your menstrual periods ceased permanently? Yes No
4. Do you currently use female hormones (e.g. Premarin)? Yes No
5. Your Major Ancestry: Southern European/Mediterranean Scandinavian Asian
(You may mark more than one.) Other Caucasian African-American Hispanic Native American Other
6. Do you currently smoke cigarettes? Yes No

7. Since June 1990, have you had any of these physician-diagnosed illnesses?
LEAVE BLANK FOR "NO", MARK HERE FOR "YES".

YEAR OF DIAGNOSIS

BEFORE JUNE 1, 1990 JUNE '90 to MAY '92 After JUNE 1, 1992

		BEFORE JUNE 1, 1990	JUNE '90 to MAY '92	After JUNE 1, 1992	
a	Diabetes Mellitus	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Elevated Cholesterol	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	High Blood Pressure	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Fibrocystic or other Benign Breast Disease	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Breast Cancer	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Cancer of the Uterus (endometrium)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g	Cancer of the Ovary	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h	Melanoma	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i	Other Skin Cancer	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ia					Was this: <input type="checkbox"/> Basal Cell <input type="checkbox"/> Squamous Cell <input type="checkbox"/> Other
j	Colon or Rectal Polyps (benign)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k	Cancer of the Colon or Rectum	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l	Other Cancer	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m	Myocardial Infarction (heart attack)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ma					Were you hospitalized for this MI? <input type="checkbox"/> Yes <input type="checkbox"/> No
n	Angina Pectoris	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
na					Confirmed by angiogram? <input type="checkbox"/> Yes <input type="checkbox"/> No
o	Coronary Artery Bypass or Coronary Angioplasty	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p	Stroke (CVA)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q	Transient Ischemic Attack (TIA)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r	Carotid Endarterectomy	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s	Pulmonary Embolus	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t	Fracture of the Hip or Wrist	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u					Please specify date, site, and circumstances on reverse side of survey.
v	Osteoporosis	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
va	Asthma (Doctor Diagnosed)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
w	Glaucoma	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x	Macular Degeneration of Retina	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
y	Cataract Extraction	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
z	Other Major Illness or Surgery (Since June 1990)	<input checked="" type="checkbox"/> Y →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Specify other major illness or surgery:

2 3 4 5 6 7 8

0 1 2 3 4 5 6 7 8 9
 0 1 2 3 4 5 6 7 8 9
 0 1 2 3 4 5 6 7 8 9

8. Did you ever have:

Multiple Sclerosis	First Dx:	<input type="checkbox"/> Before 1976	<input type="checkbox"/> 1976-80	<input type="checkbox"/> 1981-84	<input type="checkbox"/> 1985-89	<input type="checkbox"/> 1990+
Cataract	First Dx:	<input type="checkbox"/> Before 1976	<input type="checkbox"/> 1976-80	<input type="checkbox"/> 1981-84	<input type="checkbox"/> 1985-89	<input type="checkbox"/> 1990+
Kidney Stones	First Dx:	<input type="checkbox"/> Before 1976	<input type="checkbox"/> 1976-80	<input type="checkbox"/> 1981-84	<input type="checkbox"/> 1985-89	<input type="checkbox"/> 1990+

(continue on back)

	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	4	4	4	4	4	4	4
	8	8	8	8	8	8	8
	P	P	P	P	P	P	P

1	2	3	4	5	6	7	8	9	10	11	12
92	93	94									

	W	
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
	7	7
	8	8
	9	9

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	C
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	O
0	1	2	3	4	5	6	7	8	9	



Please indicate the name of someone at a **DIFFERENT PERMANENT ADDRESS** to whom we might write in the event we are unable to contact you:

Name: _____

Address: _____

Y
N

Please Specify Date, Site, and Circumstances of Hip or Wrist Fracture Here:

Was this a fracture of: Hip Wrist

V
W
X
Y
Z