

Supplementary data 1: The Cold and Health In Northern Sweden (CHINS) questionnaire, translated from Swedish to English

Title of paper: Occupational cold exposure is associated with neck pain, low back pain, and lumbar radiculopathy

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Cold and health in northern Sweden

You are hereby asked if you would like to participate in this survey, which is completely voluntary. We have gathered a selection of people aged 18–70 in northern Sweden from the Swedish national population register.

The purpose of this survey is to study if there is an association between our cold climate here in the north and different symptoms and diseases. We are interested in learning how many people experience health problems in the cold. Based on the results, follow-up studies will be undertaken and you may be contacted again.

All information is archived in a data register at Umeå University, which is also responsible for your personal data. Your answers will be processed so that unauthorized persons cannot access them. All personal data will be coded and the code key will only be available to responsible researchers. The data will only be used for research purposes and results reported in such a way that no individual person could be identified.

Please fill in the questionnaire, put it in the return envelope and mail it to us. No stamp is needed. Please return the completed questionnaire within 14 days.

Umeå University is responsible for your personal data. According to Swedish law (PUL 1998:204), you have the right to receive a cost-free report once a year, regarding what information is stored on you. Errors can be corrected.

If you have any questions, you can call or e-mail the researcher: Ingrid Liljelind, 090-7852452, ingrid.liljelind@umu.se



Below are a number of statements. Please tick the box that best applies to you for each question.

		Do not agree						Fully agree			
		1	2	3	4	5	6	7	8	9	10
1	My fingers are often cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	My feet are often cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I experience pain when exposed to cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I get blisters and itching when exposed to cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I experience eye symptoms when exposed to cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	My fingers get swollen when exposed to cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	I am oversensitive to cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	I experience urinary tract symptoms when cold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	During work I am exposed to outdoor or cold environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	During leisure time I am exposed to outdoor or cold environments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Have you ever sustained frostbite affecting your hands?							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1 <input type="checkbox"/> No	2 <input type="checkbox"/> Yes, first time was the year					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		↓									
	How did the injury manifest?										
		1 <input type="checkbox"/> White spots	2 <input type="checkbox"/> Blisters	3 <input type="checkbox"/> Blood-filled blisters							
12	Have you ever sustained frostbite affecting your feet?							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1 <input type="checkbox"/> No	2 <input type="checkbox"/> Yes, first time was the year					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		↓									
	How did the injury manifest?										
		1 <input type="checkbox"/> White spots	2 <input type="checkbox"/> Blisters	3 <input type="checkbox"/> Blood-filled blisters							
13	Have you ever sustained frostbite affecting your face (nose, cheeks, ears)?							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1 <input type="checkbox"/> No	2 <input type="checkbox"/> Yes, first time was the year					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		↓									
	How did the injury manifest?										
		1 <input type="checkbox"/> White spots	2 <input type="checkbox"/> Blisters	3 <input type="checkbox"/> Blood-filled blisters							

14 Have you ever been diagnosed by a physician for any of the following?

Are you taking any prescription drugs for it?

Does it worsen in the cold?

A High blood pressure?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

B Myocardial infarction?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

C Stroke?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

D Angina pectoris?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes

E Asthma?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes

F Chronic obstructive lung disease (COPD)?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes

G Diabetes?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes

H Joint disease?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes

I Migraines?

1 ☐ No

2 ☐ Yes

2 ☐ Yes

2 ☐ Yes



Number of days last month

15 Have you experienced wheezing in the chest at any time during the last twelve months?

1 ☐ No

2 ☐ Yes

16 Have you suffered from long-standing cough during the past few years?

1 ☐ No

2 ☐ Yes

17 Do you usually cough up mucus, or have you had mucus in your chest that you have had a hard time clearing?

1 ☐ No

2 ☐ Yes

18 Do you wake up at night, at least once per week, because of pain or numbness in fingers or hands?

1 ☐ No

2 ☐ Yes

19 Does one or more of your fingers turn white (as shown on picture) when exposed to moisture or cold?

1 ☐ No

2 ☐ Yes



What year did this first happen?

Do you have any of the following?

	None	Insignificant	Somewhat	A lot
20 Reduced sensitivity to touch in fingers/hand?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
21 Reduced sensitivity to warmth in fingers/hand?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
22 Reduced sensitivity to cold in fingers/hand?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
23 Impaired grip strength?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
24 Pain when fingers/hand get cold?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
25 Sensation of cold in fingers/hand?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
26 Aching/pain in your neck/shoulder?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
27 Aching/pain in your low back?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
28 Pain that radiates from the back to below the knees (sciatica)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
29 I experience pain/discomfort when my fingers/hands are exposed to cold	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

30 Have you been diagnosed with cataract? 1 ☐ No 2 ☐ Yes

What year?

	None	Very little	Some	Quite a lot	Very much
31 Stress is a condition where you feel tensed, restless, nervous, worried, or have trouble sleeping. Have you experienced such stress during the last month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32 What is your main occupation? (Write your response) _____

33 What year did you start this occupation?

34 Do you have access to occupational health care? 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

35 How tall are you?
cm

36 How much do you weigh?
kg

37 Do you smoke daily? 1 ☐ No 2 ☐ Yes → Number of cigarettes/day

38 Do you use snuff daily? 1 ☐ No 2 ☐ Yes → Number of boxes/week