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## **CAFFEINE INTAKE AND URINARY SYMPTOMS IN A LOCAL UK POPULATION**

### Hypothesis / aims of study

Modification of caffeine intake is believed to be an important component of the conservative management of urinary incontinence. However, current literature shows conflicting results (1-3). The aim of this ongoing study is to determine the caffeine intake of 5000 women in our local population and its effects on urinary frequency. We present the results to date.

### Study design, materials and methods

The study design was a cross sectional self-administered questionnaire survey of our local female adult population. These included healthy female hospital workers and their female friends and relations, and the local general population. Women in the local community were requested to complete the questionnaire online (via survey monkey).

The data collected so far was analysed using Stata statistical software package, version 7.0 (Stata Corp., TX). A comparison was made between those women who ticked passing urine 8 or more times per day and those who passed urine less than 8 times per day. Differences between groups were tested for significance using the  $\chi^2$  or Fisher's exact test for categorical variables.  $P < 0.05$  was considered significant.

### Results

Nine hundred and seventy two responses have been received and the results of some of the analysis are shown in Table 1. Comparison of women with urinary frequency and those without frequency showed that there was no significant difference in the age groups, parity, smoking status, use of decaffeinated drinks, number of cups/mugs of tea drunk per day or the number of tea bags used per cup. Significantly, a greater proportion of women in the frequency group drank over 6 cups of coffee per day (8% versus 1.9%,  $p < 0.001$ ), had over 3 glasses of alcohol per week (17% versus 25.9%,  $p = 0.03$ ) and drank over 2 litres of fluid per day (28.9% versus 14.9%,  $p = 0.03$ ). They were also significantly more bothered by the symptom of urinary frequency (44.5% versus 3.8%,  $p < 0.001$ ) and experienced nocturia (61.9% versus 13.7%,  $p < 0.001$ ).

### Interpretation of results

In this interim analysis, urinary frequency is associated with drinking six cups or more of coffee per day and drinking 2 litres or more of fluid per day. Urinary frequency had no relationship with the intake of tea.

### Concluding message

High intake of coffee is associated with bothersome urinary frequency.

Table 1. Comparison of women with urinary frequency and those without. Values presented as n(%)

	Frequency (n=262)	No frequency (n=710)	P
Age groups			
16-55	194(74.1)	492(69.2)	0.1
≥55	68 (25.9)	218 (21.8)	
Nulliparity	90(34.3)	206 (33.7)	0.8
Smoker	36(14.1)	84(18)	0.9
Drinks tea or coffee?			
Both	142(54.1)	328(53.7)	
Tea	68(25.9)	190(31.1)	
Coffee	28(10.6)	52(8.5)	
Drinks ≥10 cups/mugs of tea per day	6(2.2)	32(5.2)	0.1
Drinks ≥ 6 cups/mugs of coffee per day	12(9.2)	6(1.9)	<0.001
Drank ≥ 3 glasses of alcohol per week	68(25.9)	106(14.9)	0.03
Drinks ≥ 2 litres of fluid per day	74(28.2)	92(15.0)	<0.001
Bothered by symptom	116(44.2)	12(3.8)	<0.001
Nocturia	162(61.9)	84(13.7)	<0.001

#### References

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<b><i>Is this a clinical trial?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>No</b>
<b><i>This study did not require ethics committee approval because</i></b>	<b>It is a cross section questionnaire survey of a local population</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>