

# **Differences in food consumption between patients with Hashimoto's thyroiditis and healthy individuals**

Dean Kaličanin<sup>1</sup>, Luka Brčić<sup>1</sup>, Katija Ljubetić<sup>2</sup>, Ana Barić<sup>3</sup>, Sanda Gračan<sup>3</sup>, Marko Brekalo<sup>3</sup>, Vesela Torlak Lovrić<sup>3</sup>, Ivana Kolčić<sup>4</sup>, Ozren Polašek<sup>4</sup>, Tatijana Zemunik<sup>1</sup>, Ante Punda<sup>3</sup>, Vesna Boraska Perica<sup>1\*</sup>

<sup>1</sup>University of Split, School of Medicine, Department of Medical Biology, 21000 Split, Croatia

<sup>2</sup>University of Rijeka, Faculty of Health Studies, Department of Clinical Nutrition, 51000 Rijeka

<sup>3</sup>University Hospital Split, Department of Nuclear Medicine, 21000 Split, Croatia

<sup>4</sup>University of Split, School of Medicine, Department of Public Health, 21000 Split, Croatia

**Corresponding author:** Vesna Boraska Perica, Assoc. Prof, University of Split, School of Medicine, Soltanska 2, 21 000 Split, Croatia

Phone: +385 21 557 873

E-mail: [vboraska@mefst.hr](mailto:vboraska@mefst.hr)

Supplementary Table 1. The list of 22 food groups formed from 48 food items from FFQ

**MILK and MILK PRODUCTS:** Milk, Yoghurt, Sour cream, Cottage cheese, Melted cheese, Hard cheese

**RED MEAT:** Pork, Veal, Beef, Lamb, Internal organs – liver, brains,lungs, etc.

**PROCESEED MEAT:** Bacon, Sausages, Salami

**WHITE MEAT:** Chicken, Turkey

**WHITE FISH:** White fish

**OILY FISH:** Big and small (salted pilchard) oily fish

**SEA FOOD:** Sea-food (shells, crab), Squid and Octopus

**VEGETABLES:** Leafy vegetables (cabbage, kale), Root vegetables (carrot, beet root), Flower vegetables (broccoli), Fruity vegetables (tomato), Legumes, Canned and pickled vegetables

**EGGS:** Eggs

**POTATO:** Potato

**FRUITS:** Fresh fruits, Dried fruit

**NUTS:** Nuts

**REFINED GRAINS:** White bread, Macaroni or Rice

**WHOLE GRAINS:** Whole grain bread

**SWEETS:** Cakes, Chocolate, Cookies, Bonbons

**JAM, MARMALADE:** Jam and Marmelade

**NON-ALCOHOLIC BEVERAGES:** Cedevita (fruity flavoured vitamin instant drink), Soda

**LIQUOR:** Liquor

**COFFEE and TEA:** Coffee, Tea

**PLANT OIL:** Plant oil

**OLIVE OIL:** Olive oil

**ANIMAL FAT:** Animal fat

Supplementary Table 2. Calculation of weekly intake of food items for each frequency category from FFQ

Frequency categories	HT cases	Controls
	Weekly intake	
Every day	7	7
2-3 times a week	2.5	2.5
Once a week	1	1
Once a month	0.25	na
Rarely	0.125*	0.167**
Never	0	0
Always	7	
Sometimes	1	
Never	0	

\*once in two months; \*\*once in 6 weeks

Supplementary Table 3. Calculation of physical activity in HT patients

Physical activity score during every day's work				
Sitting	Light	Moderate	Hard	
0	30	60	120	
Score of engagement in any sport activity				
Daily	2-3 times a week	Once a week	Occasionally	
Less than an hour	30	10	4	1
Between 1-2 hours	45	15	6	1.5
Over 2 hours	60	20	8	2

Physical activity was assessed during the every day's work (with four responses: sitting, light, moderate and hard)

and engagement in any sport activity (with four responses occasionally, once a week, 2-3 times a week and daily).

Physical activity was calculated as a sum of physical activity score during every day's work and score of engagement

in any sport activity for each HT patient.

Supplementary Table 4. Comparison of weekly intake frequency for 22 food groups between HT cases and controls

Food groups	Mean (SD)* HT cases	Mean (SD) controls	OR (95% CI)**	P value
More frequently consumed in HT cases than in controls				
ANIMAL FAT	0.9 (1.5)	0.5 (1.2)	1.55 (1.30-1.86)	<b>&lt;0.0001</b>
PROCESSED MEAT	2.4 (2.4)	2.1 (2.5)	1.16 (1.06-1.27)	<b>0.0012</b>
NUTS	1.5 (1.9)	1.2 (1.7)	1.23 (1.08-1.40)	<b>0.0015</b>
POTATOES	2.9 (2.1)	2.8 (2.0)	1.11 (1.00-1.23)	0.0545
JAM, MARMALADE	1.1 (1.6)	1.1 (1.7)	1.08 (0.96-1.21)	0.2252
EGGS	1.6 (1.3)	1.2 (1.2)	1.08 (0.92-1.27)	0.3724
SWEETS	5.9 (5.3)	5.6 (5.3)	1.001 (0.96-1.04)	0.9576
Less frequently consumed in HT cases than in controls				
RED MEAT	2.5 (2.0)	3.5 (2.6)	0.80 (0.72-0.89)	<b>&lt;0.0001</b>
NON-ALCOHOLIC BEVERAGES	1.5 (2.3)	2.4 (2.9)	0.82 (0.75-0.89)	<b>&lt;0.0001</b>
WHOLE GRAINS	1.8 (2.2)	2.8 (2.8)	0.82 (0.76-0.89)	<b>&lt;0.0001</b>
PLANT OIL	3.8 (3.1)	4.7 (3.0)	0.87 (0.82-0.93)	<b>&lt;0.0001</b>
OLIVE OIL	3.6 (3.0)	4.6 (3.0)	0.90 (0.84-0.96)	<b>0.0018</b>
LIQUOR	0.1 (0.3)	0.3 (0.9)	0.49 (0.29-0.84)	<b>0.0087</b>
OILY FISH	0.8 (0.9)	1.2 (1.1)	0.72 (0.54-0.96)	<b>0.0245</b>
FRUITS	5.2 (3.2)	5.6 (3.1)	0.93 (0.87-0.996)	<b>0.0389</b>
REFINED GRAINS	6.2 (3.7)	6.5 (3.5)	0.96 (0.90-1.02)	0.1437
MILK and MILK PRODUCTS	10.1 (5.6)	11.0 (6.0)	0.98 (0.95-1.02)	0.3077
COFFEE and TEA	7.9 (3.9)	8.4 (3.9)	0.98 (0.93-1.03)	0.4120
WHITE FISH	0.7 (0.9)	1.0 (1.0)	0.91 (0.69-1.20)	0.4946
VEGETABLES	9.8 (6.1)	10.8 (6.2)	0.99 (0.96-1.03)	0.6614
WHITE MEAT	2.8 (1.9)	2.8 (2.0)	0.99 (0.89-1.09)	0.7794
SEAFOOD	0.6 (1.1)	0.8 (1.1)	0.99 (0.77-1.29)	0.9660

Food groups are ordered from the lowest to the highest *p* value. Food groups with the same *p* value (<0.0001) are ordered from the lowest to the highest OR. *p* <0.05 are shown in bold.

\*SD- standard deviation, \*\*OR (95% CI)- odds ratio with 95% confidence interval

Supplementary Table 5. Comparison of weekly intake of 22 food groups between 177 HT patients who were on LT4 therapy and 289 HT patients without LT4 therapy

Food groups	Mean (SD)* HT patients on therapy	Mean (SD) HT patients without therapy	OR (95% CI)*	P value
<b>RED MEAT</b>	2.9 (2.2)	2.3 (1.9)	1.24 (1.08-1.43)	<b>0.003</b>
LIQUOR	0.2 (0.3)	0.1 (0.2)	2.14 (0.96-4.79)	0.065
NON-ALCOHOLIC BEVERAGES	1.7 (2.6)	1.3 (2.0)	1.10 (0.98-1.22)	0.110
ANIMAL FAT	1.1 (1.8)	0.8 (1.2)	1.11 (0.95-1.30)	0.173
OLIVE OIL	3.9 (3.1)	3.4 (3.0)	1.06 (0.97-1.14)	0.196
COFFEE and TEA	7.9 (3.8)	8.1 (4.1)	0.97 (0.91-1.03)	0.282
WHOLE GRAINS	1.9 (2.3)	1.7 (2.2)	1.06 (0.95-1.17)	0.287
PROCESEED MEAT	2.4 (2.4)	2.4 (2.3)	0.95 (0.86-1.06)	0.374
FRUITS	5.3 (3.3)	5.1 (3.1)	1.03 (0.95-1.11)	0.481
VEGETABLES	9.9 (6.2)	9.9 (6.2)	0.99 (0.95-1.03)	0.510
SWEETS	5.7 (5.2)	6.1 (5.4)	0.99 (0.94-1.03)	0.530
WHITE MEAT	2.8 (2.1)	2.8 (1.9)	1.04 (0.92-1.16)	0.558
JAM, MARMALADE	1.2 (1.8)	1.1 (1.6)	0.96 (0.84-1.11)	0.617
EGGS	1.6 (1.3)	1.6 (1.3)	1.04 (0.87-1.24)	0.653
WHITEFISH	0.8 (0.8)	0.7 (0.9)	1.08 (0.76-1.53)	0.667
PLANT OIL	3.8 (3.1)	3.9 (3.1)	1.01 (0.94-1.09)	0.748
POTATOES	3.0 (2.2)	2.9 (2.1)	0.98 (0.87-1.11)	0.757
SEAFOOD	0.6 (1.3)	0.6 (1.1)	1.05 (0.75-1.46)	0.778
OILY FISH	0.8 (1.1)	0.7 (0.7)	0.96 (0.65-1.43)	0.850
MILK and MILK PRODUCTS	10 (5.1)	10.3 (5.9)	0.998 (0.96-1.04)	0.916
REFINED GRAINS	6.3 (3.7)	6.2 (3.6)	1.002 (0.94-1.07)	0.961
NUTS	1.5 (2.0)	1.5 (1.9)	1.00 (0.87-1.15)	0.999

Information on LT4 therapy was not available for 25 HT patients. We used logistic regression model, where therapy status

(with/without LT4 therapy) was used as dependent variable and 22 food groups as independent variables along with age and gender.

P <0.05 are shown in bold. LT4 - levothyroxine, SD\*- standard deviation, OR (95% CI)\* - odds ratio with 95% confidence interval

Supplementary Table 6. Association of weekly intake of 22 food groups with HT-related quantitative traits in HT patients

Food groups	Phenotype		TSH						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.002	0.010	0.8170	0.014	0.019	0.4570	-0.010	0.013	0.4500
RED MEAT	-0.027	0.034	0.4220	-0.009	0.052	0.8630	-0.014	0.049	0.7680
PROCESEED MEAT	0.000	0.025	0.9850	0.002	0.047	0.9620	-0.013	0.034	0.7110
WHITE MEAT	-0.006	0.031	0.8560	0.027	0.045	0.5510	-0.055	0.047	0.2480
WHITEFISH	-0.035	0.085	0.6760	0.029	0.151	0.8480	-0.002	0.112	0.9880
OILY FISH	-0.072	0.094	0.4460	-0.085	0.141	0.5450	-0.121	0.141	0.3910
SEAFOOD	0.062	0.073	0.3950	-0.023	0.106	0.8270	0.185	0.136	0.1750
VEGETABLES	0.012	0.010	0.2090	0.008	0.016	0.6290	0.008	0.013	0.5400
EGGS	0.032	0.041	0.4390	0.046	0.069	0.5040	-0.002	0.056	0.9780
POTATOES	0.006	0.030	0.8340	0.006	0.047	0.9040	0.033	0.041	0.4270
FRUITS	0.012	0.019	0.5270	0.029	0.027	0.3020	0.004	0.027	0.8770
NUTS	-0.046	0.031	0.1440	-0.124	0.051	0.0170	0.014	0.044	0.7540
REFINED GRAINS	0.023	0.016	0.1460	0.031	0.024	0.2090	0.014	0.022	0.5420
WHOLE GRAINS	-0.036	0.024	0.1300	-0.038	0.037	0.3130	-0.049	0.035	0.1650
SWEETS	0.003	0.011	0.8050	0.009	0.019	0.6280	-0.003	0.015	0.8320
JAM, MARMALADE	-0.026	0.035	0.4510	-0.019	0.054	0.7270	-0.017	0.049	0.7240
NON-ALCOHOLIC BEVERAGES	0.032	0.026	0.2210	0.028	0.037	0.4550	0.034	0.041	0.4030
LIQUOR	0.166	0.186	0.3730	0.248	0.263	0.3470	0.155	0.308	0.6150
COFFEE and TEA	0.004	0.014	0.7810	-0.009	0.024	0.7190	0.009	0.019	0.6450
PLANT OIL	-0.038	0.018	0.0380	-0.054	0.029	0.0640	-0.033	0.025	0.1870
OLIVE OIL	0.005	0.020	0.7890	0.029	0.033	0.3750	-0.011	0.026	0.6870
ANIMAL FAT	-0.065	0.035	0.0690	-0.081	0.048	0.0920	-0.048	0.057	0.3960

Food groups	Phenotype		T3						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	-0.003	0.010	0.7970	0.017	0.020	0.4020	-0.001	0.013	0.9380
RED MEAT	0.025	0.034	0.4600	0.029	0.053	0.5920	0.005	0.048	0.9180
PROCESEED MEAT	-0.002	0.025	0.9410	-0.009	0.048	0.8580	-0.003	0.034	0.9200
WHITE MEAT	-0.024	0.029	0.3990	-0.129	0.046	0.0060	0.045	0.041	0.2810
WHITEFISH	0.047	0.085	0.5780	0.190	0.155	0.2220	-0.026	0.108	0.8090
OILY FISH	-0.088	0.095	0.3560	-0.018	0.142	0.9000	-0.044	0.137	0.7480
SEAFOOD	0.084	0.073	0.2520	0.043	0.109	0.6960	0.087	0.134	0.5150
VEGETABLES	0.003	0.010	0.7550	0.008	0.016	0.6050	-0.005	0.013	0.6900
EGGS	0.030	0.042	0.4810	-0.007	0.071	0.9250	0.023	0.056	0.6820
POTATOES	-0.009	0.029	0.7510	-0.021	0.048	0.6580	-0.038	0.039	0.3280
FRUITS	-0.007	0.019	0.7190	0.001	0.028	0.9640	-0.012	0.026	0.6350
NUTS	-0.009	0.032	0.7720	0.035	0.052	0.5020	-0.040	0.043	0.3530
REFINED GRAINS	0.027	0.016	0.1000	-0.020	0.025	0.4300	0.059	0.022	0.0080
WHOLE GRAINS	0.035	0.024	0.1480	0.049	0.038	0.2060	0.045	0.035	0.2020
SWEETS	-0.004	0.011	0.6880	0.019	0.020	0.3340	-0.013	0.014	0.3530
JAM, MARMALADE	-0.009	0.035	0.7950	-0.073	0.056	0.1980	0.034	0.048	0.4830
NON-ALCOHOLIC BEVERAGES	0.001	0.027	0.9750	-0.021	0.038	0.5760	0.032	0.041	0.4290
LIQUOR	-0.230	0.188	0.2210	0.027	0.271	0.9210	-0.632	0.298	0.0350
COFFEE and TEA	0.007	0.014	0.6410	-0.003	0.025	0.8920	0.019	0.019	0.3190
PLANT OIL	0.069	0.018	<0.0001	0.102	0.030	0.0010	0.056	0.024	0.0220
OLIVE OIL	0.029	0.020	0.1520	0.021	0.034	0.5340	0.027	0.026	0.3050
ANIMAL FAT	0.023	0.036	0.5370	0.015	0.049	0.7540	0.056	0.057	0.3250

Food groups	Phenotype		T4						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	-0.012	0.010	0.2360	-0.003	0.022	0.8930	-0.007	0.012	0.5490
RED MEAT	0.019	0.034	0.5640	0.037	0.058	0.5270	-0.027	0.045	0.5470
PROCESEED MEAT	-0.014	0.025	0.5650	-0.037	0.052	0.4780	0.021	0.032	0.5140
WHITE MEAT	0.015	0.028	0.6000	-0.058	0.050	0.2490	0.064	0.039	0.1000
WHITEFISH	-0.079	0.083	0.3460	-0.047	0.167	0.7800	-0.146	0.101	0.1530
OILY FISH	-0.148	0.093	0.1130	-0.194	0.154	0.2110	0.002	0.129	0.9890
SEAFOOD	0.077	0.072	0.2870	0.152	0.118	0.1990	0.076	0.125	0.5450
VEGETABLES	0.006	0.009	0.5090	0.019	0.017	0.2750	0.001	0.012	0.9440
EGGS	0.062	0.041	0.1340	0.051	0.077	0.5070	0.059	0.053	0.2600
POTATOES	0.015	0.029	0.6040	-0.036	0.052	0.4870	0.039	0.037	0.2890
FRUITS	0.026	0.018	0.1520	0.012	0.031	0.6990	0.026	0.024	0.2780
NUTS	-0.007	0.031	0.8140	0.069	0.056	0.2260	-0.062	0.041	0.1260
REFINED GRAINS	0.023	0.016	0.1480	0.018	0.027	0.5180	0.024	0.020	0.2340
WHOLE GRAINS	0.015	0.024	0.5360	-0.002	0.042	0.9590	0.035	0.033	0.2850
SWEETS	-0.005	0.011	0.6420	-0.005	0.022	0.8010	0.006	0.013	0.6520
JAM, MARMALADE	-0.027	0.034	0.4400	-0.046	0.061	0.4530	-0.028	0.045	0.5280
NON-ALCOHOLIC BEVERAGES	0.037	0.026	0.1630	0.013	0.041	0.7560	0.048	0.038	0.2160
LIQUOR	-0.374	0.184	0.0420	-0.350	0.293	0.2350	-0.521	0.280	0.0640
COFFEE and TEA	0.023	0.014	0.1090	0.037	0.027	0.1690	0.023	0.018	0.1980
PLANT OIL	0.040	0.018	0.0270	0.089	0.032	0.0060	0.003	0.023	0.8920
OLIVE OIL	0.032	0.020	0.1010	0.013	0.036	0.7220	0.039	0.024	0.1120
ANIMAL FAT	-0.010	0.036	0.7730	0.020	0.053	0.7040	-0.044	0.054	0.4080

Food groups	Phenotype		fT4						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.001	0.011	0.9010	-0.003	0.020	0.8780	0.007	0.013	0.6050
RED MEAT	-0.002	0.035	0.9630	0.042	0.053	0.4320	-0.036	0.049	0.4650
PROCESEED MEAT	-0.025	0.026	0.3350	-0.077	0.048	0.1150	0.004	0.034	0.9130
WHITE MEAT	-0.009	0.032	0.7850	-0.011	0.047	0.8150	0.043	0.047	0.3630
WHITEFISH	-0.018	0.086	0.8350	-0.125	0.155	0.4240	-0.019	0.111	0.8670
OILY FISH	0.003	0.096	0.9710	-0.052	0.145	0.7230	0.131	0.140	0.3510
SEAFOOD	-0.016	0.074	0.8300	0.099	0.109	0.3660	-0.084	0.138	0.5420
VEGETABLES	0.001	0.010	0.8980	0.004	0.016	0.8150	-0.001	0.013	0.9120
EGGS	-0.080	0.042	0.0580	-0.127	0.071	0.0780	-0.041	0.056	0.4600
POTATOES	0.011	0.030	0.7210	0.048	0.048	0.3250	-0.013	0.041	0.7430
FRUITS	0.005	0.019	0.8000	0.026	0.028	0.3680	-0.013	0.027	0.6310
NUTS	0.012	0.032	0.7170	0.033	0.053	0.5370	-0.008	0.044	0.8560
REFINED GRAINS	0.006	0.016	0.7110	0.013	0.025	0.6100	0.003	0.022	0.9090
WHOLE GRAINS	0.022	0.024	0.3550	0.037	0.039	0.3460	0.019	0.035	0.5770
SWEETS	0.002	0.011	0.8530	0.012	0.020	0.5510	0.010	0.015	0.4860
JAM, MARMALADE	-0.009	0.036	0.8100	-0.048	0.056	0.3870	-0.004	0.049	0.9290
NON-ALCOHOLIC BEVERAGES	-0.012	0.027	0.6590	-0.019	0.038	0.6130	-0.044	0.041	0.2840
LIQUOR	0.003	0.188	0.9890	0.216	0.270	0.4260	-0.138	0.305	0.6520
COFFEE and TEA	0.000	0.015	0.9640	-0.008	0.025	0.7340	0.006	0.019	0.7580
PLANT OIL	0.020	0.018	0.2710	0.028	0.030	0.3530	0.012	0.024	0.6280
OLIVE OIL	0.011	0.020	0.6040	0.005	0.034	0.8860	0.025	0.026	0.3480
ANIMAL FAT	0.030	0.036	0.4010	0.064	0.049	0.1960	-0.007	0.057	0.9000

Food groups	Phenotype		TgAb						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	-0.008	0.011	0.4900	-0.015	0.021	0.4620	-0.008	0.014	0.5690
RED MEAT	-0.070	0.036	0.0520	-0.124	0.056	0.0280	-0.028	0.050	0.5790
PROCESEED MEAT	0.004	0.027	0.8810	0.060	0.051	0.2430	0.000	0.035	0.9880
WHITE MEAT	-0.061	0.030	0.0450	-0.049	0.049	0.3180	-0.079	0.043	0.0700
WHITEFISH	0.053	0.089	0.5540	-0.196	0.162	0.2310	0.162	0.113	0.1510
OILY FISH	-0.037	0.099	0.7080	0.054	0.150	0.7180	-0.133	0.144	0.3570
SEAFOOD	-0.022	0.077	0.7700	-0.007	0.114	0.9500	0.027	0.140	0.8450
VEGETABLES	0.016	0.010	0.1050	0.009	0.017	0.6090	0.018	0.014	0.1980
EGGS	-0.007	0.044	0.8660	0.064	0.075	0.3930	-0.065	0.059	0.2670
POTATOES	-0.010	0.031	0.7450	0.072	0.051	0.1580	-0.050	0.041	0.2250
FRUITS	0.022	0.020	0.2690	0.021	0.030	0.4740	0.025	0.027	0.3460
NUTS	0.017	0.033	0.6060	0.042	0.055	0.4490	0.006	0.045	0.8870
REFINED GRAINS	-0.013	0.017	0.4290	-0.008	0.026	0.7700	-0.011	0.023	0.6150
WHOLE GRAINS	-0.031	0.025	0.2230	0.010	0.040	0.8010	-0.048	0.036	0.1930
SWEETS	-0.017	0.012	0.1300	-0.047	0.021	0.0280	0.000	0.015	0.9860
JAM, MARMALADE	0.034	0.037	0.3580	0.065	0.059	0.2750	0.032	0.050	0.5270
NON-ALCOHOLIC BEVERAGES	0.005	0.028	0.8490	0.001	0.040	0.9740	-0.020	0.043	0.6380
LIQUOR	0.131	0.196	0.5030	-0.115	0.284	0.6880	0.133	0.311	0.6680
COFFEE and TEA	-0.017	0.015	0.2690	-0.015	0.026	0.5760	-0.013	0.020	0.5090
PLANT OIL	0.022	0.019	0.2520	-0.002	0.031	0.9560	0.029	0.025	0.2510
OLIVE OIL	0.012	0.021	0.5600	-0.015	0.035	0.6780	0.036	0.027	0.1840
ANIMAL FAT	-0.029	0.038	0.4520	-0.077	0.051	0.1350	0.010	0.060	0.8730

Food groups	Phenotype		TPOAb						
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.007	0.011	0.4930	0.013	0.019	0.5040	0.003	0.014	0.8560
RED MEAT	-0.067	0.035	0.0550	-0.066	0.052	0.2050	-0.085	0.050	0.0900
PROCESEED MEAT	-0.012	0.026	0.6370	0.010	0.047	0.8290	0.004	0.035	0.9120
WHITE MEAT	-0.043	0.029	0.1420	-0.050	0.045	0.2740	-0.065	0.043	0.1330
WHITEFISH	0.154	0.086	0.0750	0.203	0.151	0.1820	0.209	0.113	0.0650
OILY FISH	-0.049	0.096	0.6090	-0.104	0.139	0.4560	-0.104	0.144	0.4700
SEAFOOD	0.024	0.074	0.7460	0.034	0.106	0.7510	0.102	0.140	0.4680
VEGETABLES	-0.002	0.010	0.8690	-0.004	0.016	0.8050	-0.005	0.014	0.7090
EGGS	0.027	0.042	0.5300	0.149	0.070	0.0350	-0.049	0.059	0.4020
POTATOES	0.028	0.030	0.3490	0.026	0.047	0.5810	0.022	0.041	0.5900
FRUITS	-0.008	0.019	0.6580	-0.018	0.028	0.5070	0.006	0.027	0.8210
NUTS	0.012	0.032	0.7110	-0.005	0.051	0.9230	0.014	0.045	0.7590
REFINED GRAINS	-0.027	0.016	0.1020	-0.043	0.025	0.0800	-0.020	0.023	0.3870
WHOLE GRAINS	-0.057	0.025	0.0220	-0.028	0.038	0.4620	-0.086	0.036	0.0190
SWEETS	-0.011	0.011	0.3410	0.000	0.019	0.9790	-0.008	0.015	0.5940
JAM, MARMALADE	-0.045	0.036	0.2100	-0.118	0.055	0.0330	0.002	0.050	0.9750
NON-ALCOHOLIC BEVERAGES	0.000	0.027	0.9900	0.004	0.037	0.9070	-0.001	0.043	0.9790
LIQUOR	0.039	0.190	0.8390	-0.235	0.265	0.3760	0.298	0.311	0.3390
COFFEE and TEA	-0.007	0.015	0.6150	0.020	0.024	0.4090	-0.008	0.020	0.6950
PLANT OIL	0.023	0.019	0.2140	0.034	0.029	0.2480	0.009	0.025	0.7110
OLIVE OIL	-0.001	0.020	0.9550	-0.007	0.033	0.8260	-0.002	0.027	0.9320
ANIMAL FAT	0.046	0.037	0.2180	0.088	0.048	0.0670	-0.006	0.060	0.9210

Food groups	Phenotype								
	ALL			Thyroid volume			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.004	0.011	0.6720	0.022	0.024	0.3620	0.006	0.011	0.5990
RED MEAT	0.007	0.035	0.8460	0.013	0.065	0.8400	-0.031	0.042	0.4660
PROCESEED MEAT	-0.007	0.026	0.7800	-0.041	0.061	0.5000	-0.016	0.029	0.5950
WHITE MEAT	-0.040	0.031	0.1930	-0.013	0.055	0.8100	-0.072	0.040	0.0750
WHITEFISH	-0.127	0.084	0.1320	-0.112	0.189	0.5520	-0.077	0.093	0.4120
OILY FISH	-0.042	0.093	0.6560	-0.328	0.173	0.0610	-0.024	0.118	0.8360
SEAFOOD	0.040	0.074	0.5870	0.246	0.140	0.0820	-0.140	0.116	0.2280
VEGETABLES	0.016	0.010	0.1110	0.020	0.020	0.3270	0.018	0.011	0.1170
EGGS	0.037	0.041	0.3670	0.188	0.084	0.0280	-0.037	0.048	0.4430
POTATOES	-0.058	0.030	0.0530	-0.004	0.060	0.9450	-0.087	0.035	0.0130
FRUITS	0.009	0.019	0.6220	-0.006	0.034	0.8710	0.013	0.023	0.5580
NUTS	-0.008	0.032	0.8090	0.019	0.066	0.7700	-0.017	0.037	0.6540
REFINED GRAINS	0.011	0.016	0.4780	0.030	0.030	0.3220	0.011	0.019	0.5750
WHOLE GRAINS	-0.044	0.024	0.0700	-0.037	0.047	0.4310	-0.054	0.030	0.0720
SWEETS	0.011	0.011	0.3320	0.017	0.024	0.4990	0.010	0.012	0.4310
JAM, MARMALADE	-0.019	0.035	0.5890	-0.076	0.067	0.2590	0.020	0.041	0.6330
NON-ALCOHOLIC BEVERAGES	0.009	0.026	0.7280	0.008	0.046	0.8670	0.023	0.034	0.5100
LIQUOR	0.122	0.205	0.5540	-0.301	0.396	0.4490	0.289	0.256	0.2600
COFFEE and TEA	0.006	0.014	0.6720	0.042	0.029	0.1540	-0.007	0.016	0.6480
PLANT OIL	0.005	0.018	0.7680	-0.006	0.037	0.8650	0.017	0.021	0.4260
OLIVE OIL	0.021	0.020	0.3150	0.011	0.042	0.7850	0.026	0.023	0.2630
ANIMAL FAT	-0.069	0.036	0.0550	-0.029	0.061	0.6370	-0.064	0.048	0.1790

Food groups	Systolic blood pressure								
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.005	0.012	0.6630	-0.014	0.026	0.582	0.014	0.014	0.3450
RED MEAT	0.031	0.042	0.4570	0.056	0.070	0.432	0.003	0.056	0.9640
PROCESEED MEAT	-0.021	0.028	0.4610	0.061	0.059	0.308	-0.050	0.036	0.1690
WHITE MEAT	0.013	0.034	0.7070	0.001	0.050	0.986	0.010	0.057	0.8620
WHITEFISH	-0.063	0.107	0.5540	-0.131	0.192	0.499	-0.021	0.140	0.8800
OILY FISH	0.138	0.107	0.2000	0.203	0.166	0.225	0.102	0.163	0.5300
SEAFOOD	-0.057	0.081	0.4790	-0.118	0.148	0.428	-0.060	0.160	0.7090
VEGETABLES	0.012	0.012	0.2980	0.048	0.022	0.030	-0.006	0.016	0.7290
EGGS	-0.045	0.054	0.4010	0.112	0.103	0.282	-0.151	0.071	0.0370
POTATOES	0.039	0.036	0.2810	-0.047	0.067	0.486	0.030	0.048	0.5320
FRUITS	-0.012	0.022	0.5750	-0.057	0.036	0.118	0.000	0.030	0.9940
NUTS	-0.013	0.039	0.7300	0.060	0.064	0.355	-0.044	0.054	0.4180
REFINED GRAINS	0.019	0.019	0.3060	-0.040	0.033	0.221	0.050	0.025	0.0500
WHOLE GRAINS	-0.007	0.027	0.8070	-0.013	0.046	0.775	0.028	0.041	0.4890
SWEETS	0.005	0.012	0.6850	0.004	0.022	0.846	0.002	0.016	0.9100
JAM, MARMALADE	-0.053	0.043	0.2180	-0.071	0.068	0.305	0.021	0.061	0.7340
NON-ALCOHOLIC BEVERAGES	-0.021	0.029	0.4750	0.054	0.048	0.260	-0.055	0.044	0.2110
LIQUOR	-0.068	0.187	0.7160	-0.226	0.278	0.419	-0.008	0.310	0.9790
COFFEE and TEA	0.003	0.017	0.8760	0.000	0.030	0.986	0.025	0.023	0.2730
PLANT OIL	-0.009	0.022	0.6700	-0.006	0.038	0.879	-0.024	0.028	0.3870
OLIVE OIL	-0.031	0.024	0.1870	-0.159	0.047	0.001	-0.017	0.031	0.5760
ANIMAL FAT	-0.016	0.041	0.6940	-0.050	0.070	0.477	-0.018	0.056	0.7450

Food groups	Phenotype								
	ALL			OT			NT		
	$\beta$	SE	P value	$\beta$	SE	P value	$\beta$	SE	P value
MILK and MILK PRODUCTS	0.011	0.012	0.3640	0.002	0.029	0.937	0.013	0.014	0.3650
RED MEAT	0.033	0.043	0.4450	0.101	0.078	0.199	0.015	0.057	0.7990
PROCESEED MEAT	-0.037	0.029	0.2060	0.036	0.065	0.583	-0.034	0.036	0.3540
WHITE MEAT	0.001	0.035	0.9700	0.032	0.056	0.563	-0.071	0.057	0.2140
WHITEFISH	-0.173	0.109	0.1150	-0.433	0.211	0.045	-0.063	0.139	0.6520
OILY FISH	0.030	0.109	0.7860	0.229	0.182	0.215	-0.079	0.161	0.6270
SEAFOOD	0.127	0.082	0.1250	-0.016	0.163	0.921	0.281	0.159	0.0800
VEGETABLES	-0.004	0.012	0.7170	0.020	0.024	0.391	-0.024	0.016	0.1280
EGGS	-0.008	0.055	0.8790	-0.075	0.114	0.512	-0.070	0.071	0.3280
POTATOES	0.085	0.037	0.0240	0.048	0.074	0.522	0.086	0.048	0.0740
FRUITS	0.000	0.022	0.9930	0.025	0.039	0.532	-0.015	0.029	0.6010
NUTS	-0.024	0.039	0.5440	0.068	0.071	0.341	-0.031	0.054	0.5700
REFINED GRAINS	-0.014	0.019	0.4790	-0.072	0.036	0.048	0.001	0.025	0.9650
WHOLE GRAINS	-0.025	0.028	0.3700	0.021	0.050	0.671	-0.041	0.042	0.3290
SWEETS	0.002	0.012	0.8980	-0.023	0.025	0.361	0.009	0.016	0.5860
JAM, MARMALADE	-0.073	0.044	0.0980	-0.070	0.075	0.355	-0.019	0.060	0.7550
NON-ALCOHOLIC BEVERAGES	-0.042	0.031	0.1720	0.024	0.052	0.643	-0.033	0.046	0.4770
LIQUOR	-0.145	0.191	0.4480	-0.156	0.306	0.613	0.065	0.308	0.8320
COFFEE and TEA	0.005	0.017	0.7910	-0.035	0.033	0.288	0.038	0.022	0.0930
PLANT OIL	-0.018	0.022	0.4170	-0.013	0.042	0.763	-0.041	0.027	0.1370
OLIVE OIL	-0.011	0.024	0.6620	-0.124	0.051	0.019	0.018	0.031	0.5620
ANIMAL FAT	-0.032	0.042	0.4410	-0.105	0.077	0.177	-0.046	0.055	0.4130

Analyses were performed in 3 groups: ALL - entire set of 491 HT patients; OT - 177 HT patients on LT4 therapy; NT - 289 HT patients without LT4 therapy. For 25 HT patients

information on LT4 therapy was not available. Statistically significant values ( $P<0.0055$ ) are dark grey shaded, nominally significant values ( $0.01<P>0.005$ ) are light grey shaded.

Linear regression model was used, where selected quantitative trait was dependent variable and 22 food groups were independent variables. Age, gender and physical activity were also included as covariates. For thyroid volume, systolic and diastolic blood pressure we used BSA and TSH as covariates, while for TSH and fT4, we used BSA as covariate.

In the group of all HT patients we used LT4 therapy status as an additional covariate, whereas, in the sub-group of HT patients that were on LT4 therapy, we used LT4 therapy dose and weight ratio as additional covariate.  $\beta$  - effect size, SE - standard error.

Supplementary Table 7. Association of 22 food groups with 16 symptoms of hypothyroidism in 289 HT patients without therapy

Food groups	Symptoms		Weakness		Dry, rough skin		Slow speach		Edem of the eyes	
		OR (95% CI)	P value		OR (95% CI)	P value		OR (95% CI)	P value	
MILK and MILK PRODUCTS		1.01 (0.94 - 1.08)	0.8500	0.998 (0.93 - 1.07)	0.9580	0.92 (0.77 - 1.10)	0.3470	1.00 (0.91 - 1.09)	0.9970	
RED MEAT		1.05 (0.81 - 1.36)	0.7340	0.92 (0.7 - 1.22)	0.5760	1.23 (0.71 - 2.13)	0.4680	0.89 (0.61 - 1.29)	0.5320	
PROCESEED MEAT		0.98 (0.81 - 1.17)	0.7840	1.10 (0.92 - 1.32)	0.2940	1.17 (0.77 - 1.78)	0.4680	0.93 (0.73 - 1.19)	0.5620	
WHITE MEAT		1.09 (0.83 - 1.43)	0.5230	1.40 (1.04 - 1.89)	0.0260	0.88 (0.40 - 1.94)	0.7560	1.39 (0.96 - 2.01)	0.0860	
WHITEFISH		0.79 (0.47 - 1.33)	0.3660	1.22 (0.70 - 2.10)	0.4860	1.21 (0.33 - 4.45)	0.7720	1.15 (0.62 - 2.16)	0.6570	
OILY FISH		1.14 (0.55 - 2.36)	0.7260	1.08 (0.50 - 2.31)	0.8450	1.33 (0.20 - 8.83)	0.7690	2.01 (0.75 - 5.40)	0.1660	
SEAFOOD		1.14 (0.56 - 2.31)	0.7170	1.10 (0.55 - 2.18)	0.7890	0.80 (0.15 - 4.13)	0.7860	0.81 (0.34 - 1.92)	0.6330	
VEGETABLES		0.96 (0.89 - 1.03)	0.2620	0.94 (0.87 - 1.02)	0.1340	0.98 (0.81 - 1.18)	0.8250	1.01 (0.92 - 1.11)	0.8170	
EGGS		1.13 (0.84 - 1.53)	0.4200	0.98 (0.71 - 1.33)	0.8740	1.11 (0.29 - 4.23)	0.8740	0.86 (0.55 - 1.34)	0.5050	
POTATOES		0.95 (0.76 - 1.19)	0.6630	0.89 (0.69 - 1.15)	0.3760	1.03 (0.56 - 1.90)	0.9150	1.05 (0.74 - 1.48)	0.7980	
FRUITS		0.995 (0.86 - 1.15)	0.9440	1.09 (0.94 - 1.26)	0.2420	0.99 (0.68 - 1.42)	0.9410	0.80 (0.64 - 0.98)	0.0350	
NUTS		0.87 (0.70 - 1.10)	0.2390	1.17 (0.92 - 1.47)	0.2020	0.98 (0.55 - 1.75)	0.9410	0.96 (0.71 - 1.30)	0.7950	
REFINED GRAINS		0.93 (0.83 - 1.05)	0.2500	1.08 (0.95 - 1.22)	0.2470	1.02 (0.74 - 1.41)	0.8880	0.96 (0.81 - 1.13)	0.6090	
WHOLE GRAINS		0.96 (0.80 - 1.14)	0.6130	0.98 (0.80 - 1.20)	0.8310	0.84 (0.54 - 1.30)	0.4250	1.09 (0.86 - 1.37)	0.4890	
SWEETS		0.95 (0.88 - 1.03)	0.1930	0.95 (0.87 - 1.04)	0.2290	0.71 (0.45 - 1.13)	0.1430	0.91 (0.79 - 1.03)	0.1400	
JAM, MARMALADE		1.14 (0.86 - 1.52)	0.3670	1.11 (0.83 - 1.49)	0.4890	1.11 (0.52 - 2.34)	0.7920	0.89 (0.57 - 1.37)	0.5930	
NON-ALCOHOLIC BEVERAGES		0.92 (0.74 - 1.16)	0.4880	1.08 (0.86 - 1.37)	0.5060	1.65 (0.95 - 2.87)	0.0770	1.10 (0.79 - 1.54)	0.5610	
LIQUOR		0.84 (0.15 - 4.73)	0.8460	1.88 (0.42 - 8.36)	0.4090	0.97 (0.0 - 6747)	0.9950	1.17 (0.2 - 6.75)	0.8600	
COFFEE and TEA		1.03 (0.93 - 1.14)	0.6290	0.93 (0.84 - 1.02)	0.1320	0.999 (0.78 - 1.28)	0.9970	1.06 (0.92 - 1.21)	0.4270	
PLANT OIL		1.03 (0.90 - 1.18)	0.6510	0.97 (0.85 - 1.11)	0.6310	0.87 (0.61 - 1.25)	0.4530	0.92 (0.76 - 1.11)	0.3650	
OLIVE OIL		0.99 (0.85 - 1.14)	0.8560	1.18 (1.01 - 1.37)	0.0330	0.88 (0.63 - 1.24)	0.4660	1.04 (0.85 - 1.27)	0.7080	
ANIMAL FAT		0.98 (0.73 - 1.32)	0.8790	1.08 (0.79 - 1.48)	0.6170	0.27 (0.04 - 1.90)	0.1890	1.32 (0.83 - 2.09)	0.2430	

Food groups	Symptoms		Sensitivity to coldness		Cold skin		Face edem		Fragile hair	
			OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
MILK and MILK PRODUCTS			0.98 (0.92 - 1.05)	0.6290	1.01 (0.94 - 1.08)	0.8690	0.98 (0.86 - 1.11)	0.7040	0.95 (0.89 - 1.02)	0.1750
RED MEAT			0.89 (0.69 - 1.16)	0.4070	0.88 (0.66 - 1.17)	0.3640	1.31 (0.83 - 2.07)	0.2480	0.99 (0.74 - 1.31)	0.9330
PROCESEED MEAT			1.01 (0.85 - 1.19)	0.9360	0.99 (0.82 - 1.19)	0.8720	1.001 (0.73 - 1.37)	0.9950	0.999 (0.84 - 1.19)	0.9900
WHITE MEAT			1.10 (0.84 - 1.44)	0.4790	1.26 (0.92 - 1.70)	0.1450	0.95 (0.58 - 1.54)	0.8220	1.20 (0.89 - 1.63)	0.2310
WHITEFISH			0.91 (0.54 - 1.55)	0.7430	0.91 (0.45 - 1.83)	0.7830	1.37 (0.61 - 3.08)	0.4510	1.39 (0.69 - 2.81)	0.3550
OILY FISH			1.04 (0.50 - 2.18)	0.9200	1.08 (0.47 - 2.46)	0.8600	0.68 (0.20 - 2.35)	0.5380	0.74 (0.31 - 1.75)	0.4930
SEAFOOD			1.00 (0.50 - 1.20)	0.9990	1.55 (0.77 - 3.10)	0.2200	1.05 (0.36 - 3.03)	0.9340	1.54 (0.75 - 3.15)	0.2360
VEGETABLES			0.97 (0.90 - 1.04)	0.3900	0.97 (0.90 - 1.05)	0.5200	1.08 (0.97 - 1.22)	0.1720	1.02 (0.94 - 1.11)	0.5830
EGGS			0.89 (0.66 - 1.21)	0.4700	1.07 (0.77 - 1.47)	0.6990	0.94 (0.46 - 1.91)	0.8540	1.24 (0.91 - 1.71)	0.1800
POTATOES			1.10 (0.88 - 1.37)	0.4160	1.31 (1.03 - 1.67)	0.0260	1.44 (0.94 - 2.21)	0.0920	0.82 (0.62 - 1.08)	0.1530
FRUITS			1.07 (0.93 - 1.22)	0.3280	1.08 (0.93 - 1.26)	0.3380	1.10 (0.88 - 1.38)	0.3850	1.17 (1.02 - 1.36)	0.0310
NUTS			1.10 (0.88 - 1.39)	0.3970	1.20 (0.95 - 1.53)	0.1330	1.54 (1.06 - 2.24)	0.0220	1.05 (0.83 - 1.34)	0.6750
REFINED GRAINS			1.02 (0.91 - 1.15)	0.7290	0.94 (0.83 - 1.07)	0.3300	0.94 (0.75 - 1.17)	0.5700	1.05 (0.93 - 1.20)	0.4280
WHOLE GRAINS			1.03 (0.86 - 1.23)	0.7420	0.92 (0.75 - 1.14)	0.4560	0.85 (0.60 - 1.21)	0.3650	1.02 (0.84 - 1.24)	0.8420
SWEETS			0.97 (0.89 - 1.05)	0.4540	1.06 (0.97 - 1.15)	0.1930	0.85 (0.69 - 1.05)	0.1390	0.997 (0.91 - 1.09)	0.9460
JAM, MARMALADE			0.93 (0.68 - 1.27)	0.6440	0.93 (0.68 - 1.28)	0.6560	0.80 (0.36 - 1.79)	0.5850	0.89 (0.63 - 1.27)	0.5280
NON-ALCOHOLIC BEVERAGES			0.97 (0.77 - 1.22)	0.7800	1.05 (0.84 - 1.32)	0.6750	1.33 (0.87 - 2.03)	0.1890	1.17 (0.93 - 1.47)	0.1730
LIQUOR			0.29 (0.03 - 2.99)	0.3010	1.06 (0.19 - 5.81)	0.9500	1.02 (0.02 - 53.8)	0.9910	0.54 (0.06 - 4.56)	0.5690
COFFEE and TEA			1.09 (0.99 - 1.21)	0.0920	0.90 (0.81 - 1.00)	0.0500	0.96 (0.81 - 1.14)	0.6730	0.95 (0.86 - 1.05)	0.3130
PLANT OIL			0.97 (0.86 - 1.11)	0.6750	0.96 (0.84 - 1.10)	0.5650	1.09 (0.85 - 1.40)	0.5080	0.995 (0.86 - 1.14)	0.9390
OLIVE OIL			0.98 (0.85 - 1.13)	0.7840	1.07 (0.92 - 1.25)	0.3830	1.08 (0.82 - 1.40)	0.5950	0.95 (0.81 - 1.11)	0.4960
ANIMAL FAT			1.03 (0.75 - 1.42)	0.8580	1.08 (0.79 - 1.49)	0.6240	1.32 (0.81 - 2.14)	0.2600	1.08 (0.77 - 1.51)	0.6750

Food groups	Symptoms		Pale skin		Memory disturbance		Constipation		Increase in weight	
			OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
MILK and MILK PRODUCTS			1.01 (0.94 - 1.08)	0.8160	1.03 (0.96 - 1.11)	0.3870	1.02 (0.93 - 1.12)	0.6380	1.05 (0.97 - 1.13)	0.2390
RED MEAT			0.96 (0.73 - 1.27)	0.7920	0.71 (0.51 - 0.99)	0.0410	0.97 (0.68 - 1.40)	0.8760	0.96 (0.70 - 1.31)	0.8090
PROCESEED MEAT			0.93 (0.77 - 1.11)	0.4050	0.82 (0.65 - 1.03)	0.0890	0.84 (0.64 - 1.11)	0.2240	0.91 (0.74 - 1.12)	0.3680
WHITE MEAT			1.02 (0.77 - 1.35)	0.8940	1.02 (0.73 - 1.42)	0.9230	0.99 (0.64 - 1.54)	0.9560	0.96 (0.69 - 1.32)	0.7950
WHITEFISH			1.82 (0.97 - 3.40)	0.0620	0.33 (0.11 - 0.99)	0.0480	1.35 (0.65 - 2.82)	0.4240	1.22 (0.63 - 2.37)	0.5590
OILY FISH			0.62 (0.29 - 1.36)	0.2370	4.66 (1.52 - 14.2)	0.0070	1.69 (0.59 - 4.86)	0.3320	1.32 (0.54 - 3.19)	0.5440
SEAFOOD			0.94 (0.46 - 1.94)	0.8660	3.05 (1.13 - 8.22)	0.0280	0.88 (0.37 - 2.09)	0.7790	1.19 (0.55 - 2.59)	0.6520
VEGETABLES			0.97 (0.90 - 1.04)	0.3750	0.98 (0.89 - 1.08)	0.6260	0.99 (0.90 - 1.09)	0.8370	0.95 (0.87 - 1.03)	0.2230
EGGS			1.02 (0.73 - 1.41)	0.9210	0.58 (0.34 - 0.98)	0.0420	1.37 (0.91 - 2.04)	0.1290	1.007 (0.71 - 1.42)	0.9680
POTATOES			1.04 (0.82 - 1.31)	0.7540	1.15 (0.85 - 1.54)	0.3660	0.72 (0.51 - 1.03)	0.0720	1.07 (0.71 - 1.42)	0.6300
FRUITS			1.07 (0.93 - 1.23)	0.3740	1.06 (0.90 - 1.24)	0.5130	1.38 (1.12 - 1.70)	0.0020	0.98 (0.83 - 1.14)	0.7650
NUTS			0.99 (0.77 - 1.27)	0.9140	1.01 (0.76 - 1.32)	0.9720	0.94 (0.67 - 1.30)	0.6990	0.99 (0.76 - 1.30)	0.9680
REFINED GRAINS			0.99 (0.88 - 1.12)	0.8920	0.94 (0.80 - 1.10)	0.4240	0.997 (0.84 - 1.19)	0.9710	0.95 (0.83 - 1.10)	0.4700
WHOLE GRAINS			0.82 (0.66 - 1.01)	0.0560	0.88 (0.70 - 1.12)	0.3000	1.15 (0.90 - 1.47)	0.2490	0.94 (0.77 - 1.16)	0.5870
SWEETS			0.93 (0.85 - 1.02)	0.1060	0.88 (0.79 - 0.99)	0.0280	0.98 (0.87 - 1.10)	0.7400	1.04 (0.96 - 1.14)	0.3380
JAM, MARMALADE			1.01 (0.72 - 1.42)	0.9410	0.97 (0.64 - 1.47)	0.8860	1.10 (0.71 - 1.71)	0.6700	1.08 (0.75 - 1.55)	0.6740
NON-ALCOHOLIC BEVERAGES			1.10 (0.88 - 1.38)	0.4090	1.07 (0.83 - 1.39)	0.6050	1.05 (0.80 - 1.38)	0.7230	1.23 (0.97 - 1.57)	0.0860
LIQUOR			1.35 (0.22 - 8.43)	0.7500	4.11 (0.69 - 24.5)	0.1210	0.61 (0.01 - 30.4)	0.8020	0.63 (0.06 - 6.61)	0.7020
COFFEE and TEA			1.01 (0.91 - 1.12)	0.8880	0.91 (0.80 - 1.03)	0.1290	0.81 (0.70 - 0.94)	0.0040	1.04 (0.93 - 1.16)	0.4850
PLANT OIL			0.92 (0.81 - 1.06)	0.2480	1.08 (0.92 - 1.26)	0.3720	1.05 (0.87 - 1.26)	0.6330	0.95 (0.81 - 1.10)	0.4850
OLIVE OIL			0.99 (0.86 - 1.15)	0.9060	0.84 (0.70 - 1.01)	0.0570	0.86 (0.69 - 1.06)	0.1560	0.995 (0.84 - 1.18)	0.9570
ANIMAL FAT			1.08 (0.80 - 1.47)	0.6020	0.70 (0.41 - 1.20)	0.1980	1.21 (0.79 - 1.85)	0.3810	0.84 (0.51 - 1.38)	0.4830

Food groups	Symptoms		Loss of skin hair		Dyspnea		Peripheral edems		Harsh voice	
	OR (95% CI)	P value	OR (95% CI)	P value						
MILK and MILK PRODUCTS	1.21 (1.05 - 1.39)	0.0080	0.94 (0.82 - 1.08)	0.2840	0.94 (0.82 - 1.08)	0.3750	1.08 (0.99 - 1.18)	0.0860		
RED MEAT	1.13 (0.72 - 1.77)	0.6040	0.82 (0.48 - 1.39)	0.5180	0.82 (0.48 - 1.39)	0.4560	0.88 (0.63 - 1.25)	0.4750		
PROCESEED MEAT	1.15 (0.86 - 1.53)	0.3580	1.24 (0.90 - 1.70)	0.4560	1.24 (0.90 - 1.70)	0.1950	0.95 (0.74 - 1.21)	0.6610		
WHITE MEAT	0.71 (0.42 - 1.20)	0.1980	0.94 (0.54 - 1.64)	0.0370	0.94 (0.54 - 1.64)	0.8180	1.21 (0.85 - 1.71)	0.2910		
WHITEFISH	0.94 (0.39 - 2.26)	0.8880	0.39 (0.10 - 1.59)	0.0550	0.39 (0.10 - 1.59)	0.1900	0.92 (0.50 - 1.69)	0.7890		
OILY FISH	0.87 (0.21 - 3.63)	0.8480	2.67 (0.80 - 8.94)	0.6710	2.67 (0.80 - 8.94)	0.1120	1.38 (0.50 - 3.79)	0.5350		
SEAFOOD	0.71 (0.23 - 2.26)	0.5660	4.14 (1.29 - 13.3)	0.3290	4.14 (1.29 - 13.3)	0.0170	1.05 (0.45 - 2.44)	0.9180		
VEGETABLES	1.03 (0.92 - 1.16)	0.5950	1.01 (0.88 - 1.16)	0.3270	1.01 (0.88 - 1.16)	0.8940	1.03 (0.94 - 1.13)	0.4780		
EGGS	0.37 (0.14 - 0.98)	0.0440	0.83 (0.43 - 1.60)	0.7660	0.83 (0.43 - 1.60)	0.5810	0.81 (0.52 - 1.27)	0.3570		
POTATOES	0.94 (0.59 - 1.49)	0.7830	1.57 (1.01 - 2.43)	0.5330	1.57 (1.01 - 2.43)	0.0460	1.07 (0.80 - 1.44)	0.6570		
FRUITS	0.93 (0.73 - 1.20)	0.5930	0.82 (0.65 - 1.04)	0.8200	0.82 (0.65 - 1.04)	0.1070	0.92 (0.77 - 1.12)	0.4070		
NUTS	0.84 (0.50 - 1.41)	0.5130	1.24 (0.84 - 1.84)	0.0320	1.24 (0.84 - 1.84)	0.2840	0.78 (0.54 - 1.13)	0.1850		
REFINED GRAINS	1.16 (0.93 - 1.45)	0.1930	0.73 (0.57 - 0.94)	0.2580	0.73 (0.57 - 0.94)	0.0150	1.10 (0.94 - 1.29)	0.2200		
WHOLE GRAINS	0.62 (0.37 - 1.07)	0.0850	0.96 (0.73 - 1.25)	0.6300	0.96 (0.73 - 1.25)	0.7430	0.94 (0.71 - 1.23)	0.6290		
SWEETS	1.15 (0.99 - 1.33)	0.0610	0.99 (0.85 - 1.14)	0.7840	0.99 (0.85 - 1.14)	0.8770	0.97 (0.86 - 1.08)	0.5550		
JAM, MARMALADE	0.56 (0.23 - 1.37)	0.2060	1.01 (0.59 - 1.71)	0.1690	1.01 (0.59 - 1.71)	0.9840	0.85 (0.57 - 1.28)	0.4360		
NON-ALCOHOLIC BEVERAGES	1.12 (0.74 - 1.7)	0.5980	1.45 (1.01 - 2.08)	0.2880	1.45 (1.01 - 2.08)	0.0460	0.91 (0.63 - 1.30)	0.5890		
LIQUOR	0.001 (0.0 - 12.7)	0.1480	0.25 (0.0 - 27.1)	0.8010	0.25 (0.0 - 27.1)	0.5600	0.14 (0.0 - 9.71)	0.3610		
COFFEE and TEA	1.09 (0.91 - 1.30)	0.3700	0.90 (0.76 - 1.05)	0.4130	0.9 (0.76 - 1.05)	0.1840	1.03 (0.90 - 1.18)	0.6690		
PLANT OIL	0.77 (0.60 - 0.98)	0.0350	0.85 (0.66 - 1.10)	0.8430	0.85 (0.66 - 1.10)	0.2160	1.01 (0.85 - 1.21)	0.9220		
OLIVE OIL	1.29 (0.96 - 1.75)	0.0970	1.03 (0.78 - 1.35)	0.5300	1.03 (0.78 - 1.35)	0.8470	1.00 (0.83 - 1.21)	1.0000		
ANIMAL FAT	1.11 (0.50 - 2.45)	0.8050	1.25 (0.73 - 2.14)	0.1310	1.25 (0.73 - 2.14)	0.4140	1.27 (0.87 - 1.86)	0.2170		

Statistically significant values ( $P<0.0031$ ) are dark grey shaded, nominally significant values ( $0.01<P>0.0031$ ) are light grey shaded. Symptom status (with/without symptom) was used as dependent

variable and food groups as independent variables in logistic regression model. We also included age, gender, physical activity, BMI and TSH levels as covariates. OR - odds ration, CI - confidence interval