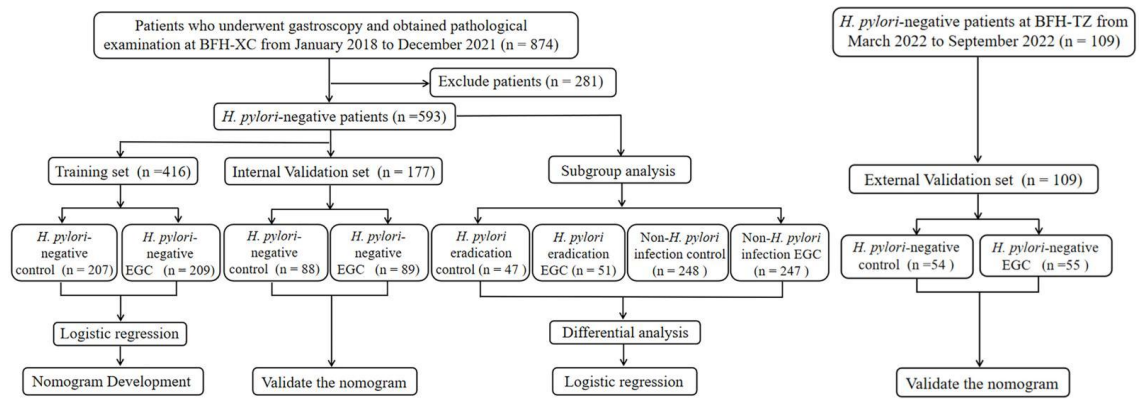
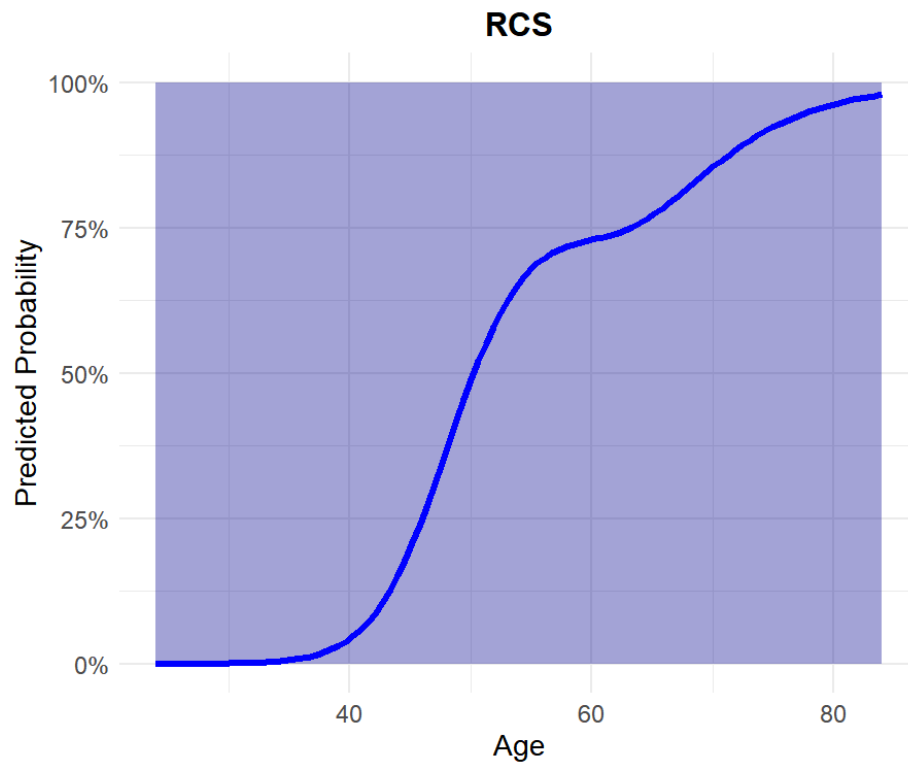
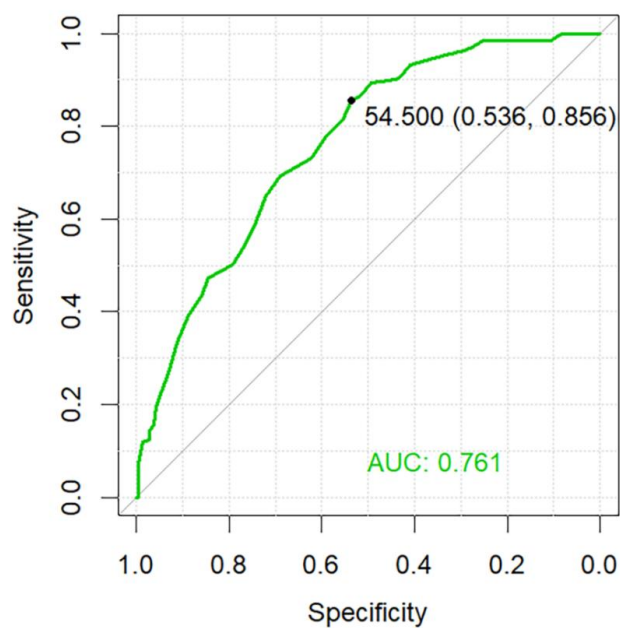




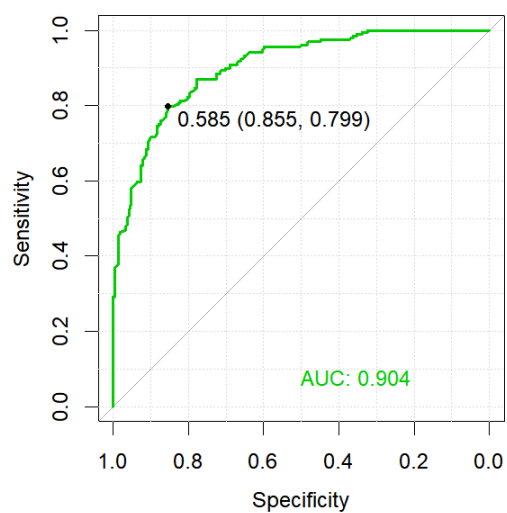
Supplementary Figure 1 The flow diagram of the study.



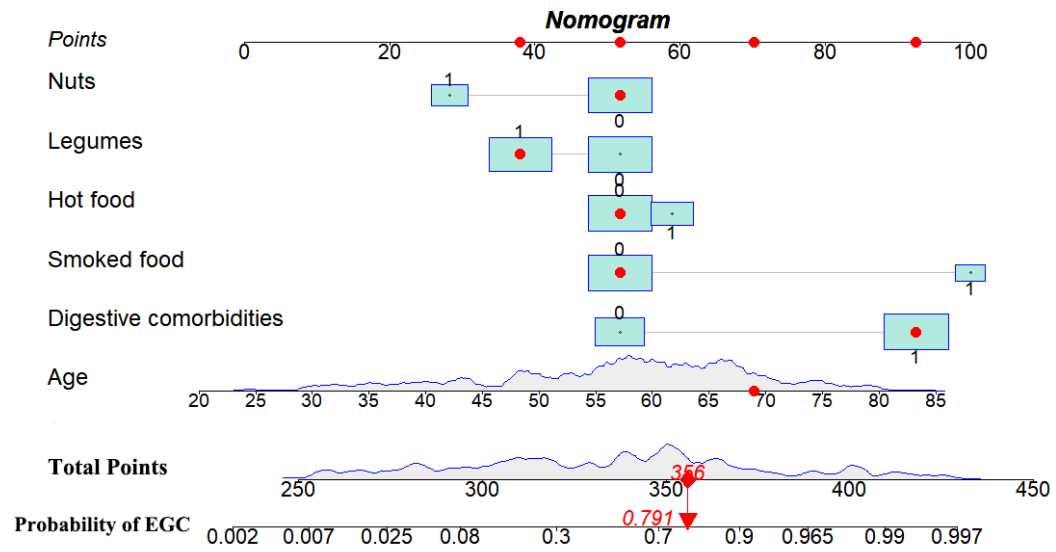
Supplementary Figure 2 The restricted cubic spline curve of age.



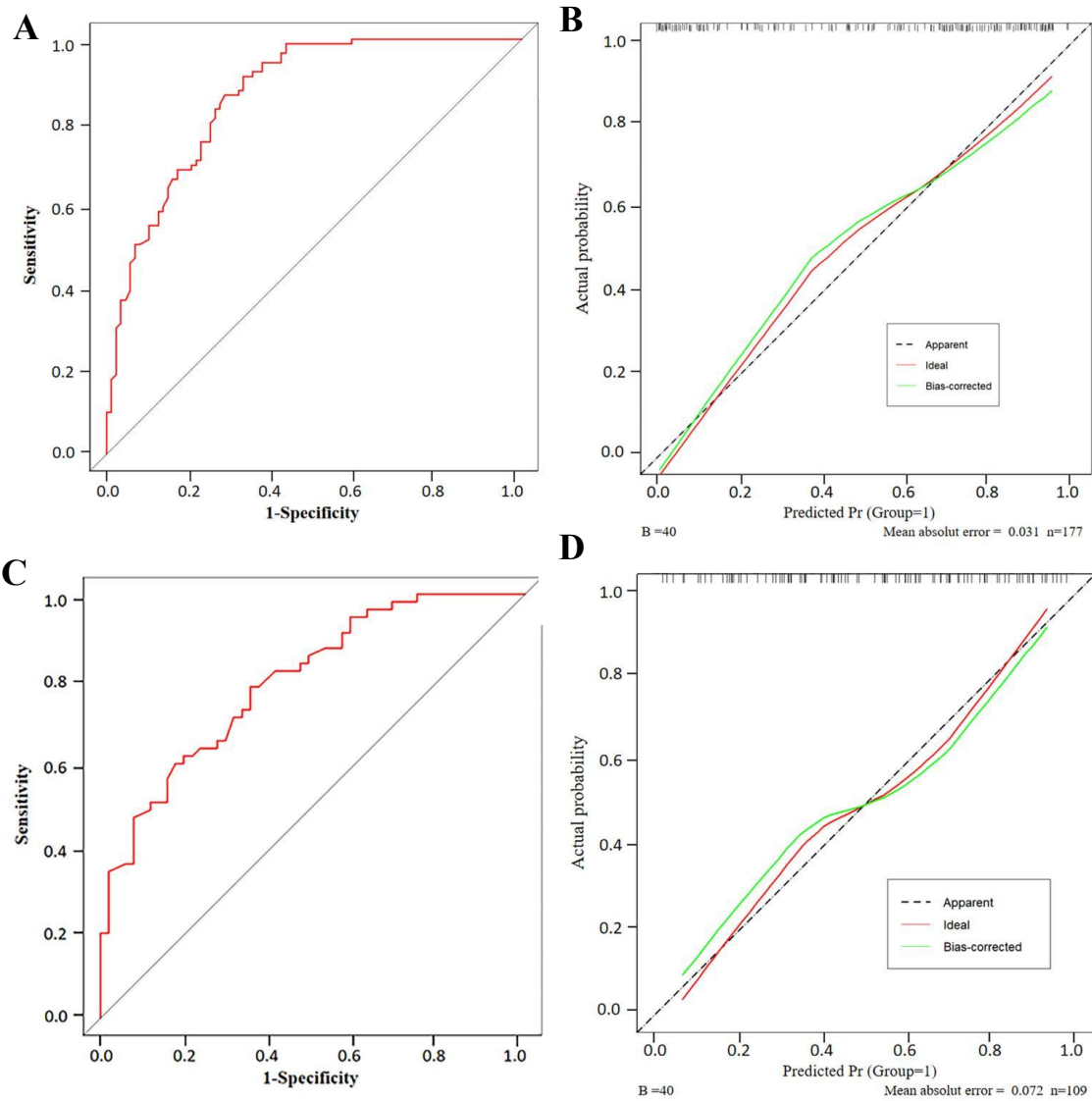
Supplementary Figure 3 The receiver operating characteristic curve of age for the prediction of HpN-EGC.



Supplementary Figure 4 The receiver operating characteristic curve of the prediction model for HpN-EGC in the training set.

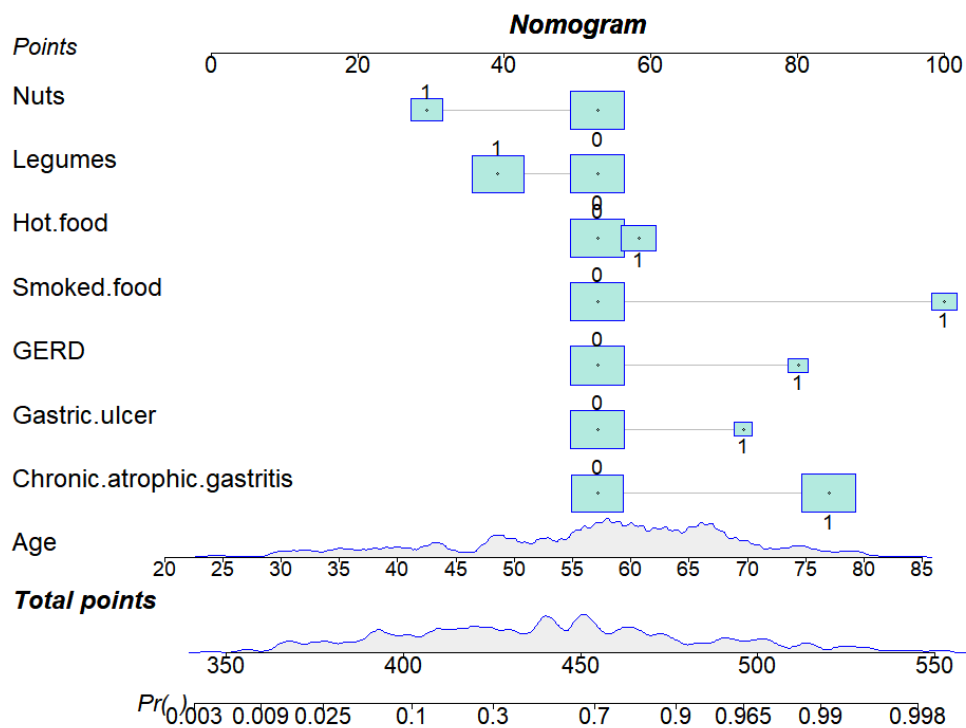


Supplementary Figure 5 Clinical application of the nomogram for HpN-EGC risk prediction.



Supplementary Figure 6 The receiver operating characteristic curves and calibration curves of the nomogram in internal and external validation sets.

A: ROC for internal validation set; B: Calibration curve for internal validation set; C: ROC for external validation set; D: Calibration curve for external validation set.



Supplementary Figure 7 The nomogram for HpN-EGC risk prediction with separate indicators for digestive comorbidities.

Supplementary Table 1 Comparison of clinical symptoms between the HpN-EGC and HpN-control groups

	HpN-Control group (<i>n</i> = 207)	HpN-EGC group (<i>n</i> = 209)	<i>P</i> value
dysphagia			0.724
Yes	3 (1.4)	5 (2.4)	
No	204 (98.6)	204 (97.6)	
acid reflux			0.127
Yes	57 (27.5)	72 (34.4)	
No	150 (72.5)	137 (65.6)	
heartburn			<0.001
Yes	15 (7.2)	60 (28.7)	
No	192 (92.8)	149 (71.3)	
nausea			0.977
Yes	16 (7.7)	16 (7.7)	
No	191 (92.3)	193 (92.3)	
vomiting			0.449
Yes	2 (1.0)	5 (2.4)	
No	205 (99.0)	204 (97.6)	
abdominal pain			<0.001
Yes	27 (13.0)	66 (31.6)	
No	180 (87.0)	143 (68.4)	

abdominal				0.006
distension				
Yes	35 (16.9)	59 (28.2)		
No	172 (83.1)	150 (71.8)		
hematemesis				0.498
Yes	1 (0.5)	1 (0.0)		
No	206 (99.5)	209 (100.0)		
melena				0.371
Yes	3 (1.4)	1 (0.5)		
No	204 (98.6)	208 (99.5)		
marasmus				0.123
Yes	0 (0.0)	4 (1.9)		
No	207 (100.0)	205 (98.1)		
fatigue				0.248
Yes	0 (0.0)	3 (1.4)		
No	207 (100.0)	206 (98.6)		

Supplementary Table 2 Multivariate analyses of significant characteristics between HpN-EGC and HpN-control groups following bootstrap resampling

Characteristics	Univariate		
	OR	95% CI	<i>P</i> value
Age, year	1.13	1.05-1.27	0.003
Digestive comorbidities	27.48	6.29-167.96	<0.001
Yes vs No			
Smoked food	17.50	1.99 -229.69	0.040
Frequent vs Occasional			
Hot food	5.21	1.09-29.98	0.003
Frequent vs Occasional			
Legumes	0.27	0.05-0.88	<0.001
Frequent vs Occasional			
Nuts	0.18	0.03-0.84	0.023
Frequent vs Occasional			

Supplementary Table 3 The variable assignments contained in the nomogram

Variables	Assignments
Nuts	Occasional = 0, Frequent = 1
Legumes	Occasional = 0, Frequent = 1
Hot food	Occasional = 0, Frequent = 1
Smoked food	Occasional = 0, Frequent = 1
Digestive comorbidities	No = 0, Yes = 1
Age	Continuous variable

Supplementary Table 4 Multivariate analyses of digestive comorbidities in the HpN-EGC and HpN-control groups in the training set

	HpN-control group (n=207)	HpN-EGC group (n=209)	<i>P</i> value
Chronic atrophic gastritis			<0.001
Yes	70 (33.8)	147 (70.3)	
No	137 (66.2)	62 (29.7)	
Gastric ulcer			<0.001
Yes	9 (4.3)	37 (17.7)	
No	198 (95.7)	172 (82.3)	
GERD			0.002
Yes	15 (7.2)	36 (17.2)	
No	192 (92.8)	173 (82.8)	

Supplementary Table 5 Characteristic analysis of the *H. pylori* infection control and *H. pylori* infection EGC groups

Characteristics	<i>H. pylori</i> infection control group, <i>n</i> = 22	<i>H. pylori</i> infection EGC group, <i>n</i> = 85	<i>P</i> value
Sex			0.041
Male	12 (54.5)	65 (76.5)	
Female	10 (45.5)	20 (23.5)	
Age, yr	48.32 ± 12.73	62.68 ± 10.22	<0.001
BMI (kg/m ²)	24.13 ± 3.41	24.58 ± 3.02	0.548
Smoking*			0.006
Yes	4 (18.2)	43 (50.6)	
No	18 (81.8)	42 (49.4)	
Drinking*			<0.001
Yes	2 (9.1)	45 (52.9)	
No	20 (90.9)	40 (47.1)	
Educational level			0.002
High school or above	21 (95.5)	51 (60.0)	
Below high school	1 (4.5)	34 (40.0)	
Clinical symptoms			0.263
Yes	17 (77.3)	55 (64.7)	
No	5 (22.7)	30 (35.3)	
Hypertension			0.046
Yes	4 (18.2)	35 (41.2)	
No	18 (81.8)	50 (58.8)	
Diabetes			0.069
Yes	0 (0.0)	14 (16.5)	
No	22 (100.0)	71 (83.5)	
Hyperlipidemia			0.516
Yes	2 (9.1)	14 (16.5)	
No	20 (90.9)	71 (83.5)	

Cardiac and cerebral diseases			0.006
Yes	0 (0.0)	22 (25.9)	
No	22 (100.0)	63 (74.1)	
Digestive comorbidities			0.016
Yes	8 (36.4)	55 (64.7)	
No	14 (63.6)	30 (35.3)	
Family history of GC			0.499
Yes	7 (31.8)	21 (24.7)	
No	15 (68.2)	64 (75.3)	
CCI [†]	0.23 ± 0.53	0.88 ± 1.11	<0.001
Aspirin ^{**}			0.578
Yes	0 (0.0)	7 (15.6)	
No	6 (100.0)	38 (84.4)	
Metformin ^{**}			0.575
Yes	0 (0.0)	9 (20.0)	
No	6 (100.0)	36 (80.0)	
Corticosteroids ^{**}			1.000
Yes	0 (0.0)	1 (2.2)	
No	6 (100.0)	44 (97.8)	
PPI ^{**}			/
Yes	0 (0.0)	0 (0.0)	
No	22 (100.0)	85 (100.0)	
Hard food			0.292
Occasional	21 (95.5)	72 (84.7)	
Frequent	1 (4.5)	13 (15.3)	
Fried food			0.296
Occasional	21 (95.5)	73 (85.9)	
Frequent	1 (4.5)	12 (14.1)	
Spicy food			0.118
Occasional	22 (100.0)	75 (88.2)	

Frequent	0 (0.0)	10 (11.8)	
Smoked food			0.068
Occasional	21 (95.5)	66 (77.6)	
Frequent	1 (4.5)	19 (22.4)	
Hot food			0.911
Occasional	15 (68.2)	59 (69.4)	
Frequent	7 (31.8)	26 (30.6)	
Onion and garlic			0.029
Occasional	8 (36.4)	12 (14.1)	
Frequent	14 (63.6)	73 (85.9)	
Legumes			0.002
Occasional	8 (36.4)	61 (71.8)	
Frequent	14 (63.6)	24 (28.2)	
Nuts			0.044
Occasional	15 (68.2)	75 (88.2)	
Frequent	7 (31.8)	10 (11.8)	
Coarse grains			0.070
Occasional	18 (81.8)	52 (61.2)	
Frequent	4 (18.2)	33 (38.8)	
Meat, egg, and milk			1.000
Occasional	2 (9.1)	9 (10.6)	
Frequent	20 (90.9)	76 (89.4)	
Fruits and vegetables			1.000
Occasional	0 (0.0)	1 (1.2)	
Frequent	22 (100.0)	84 (98.8)	

CCI, Charlson comorbidity index; *Smoking or drinking now or having been smoking or drinking for more than 1 year. **Long term use of drugs refers to using for more than 1 year.

Supplementary Table 6 Multivariate logistic regression analysis of factors associated with *H. pylori* eradication EGC, *H. pylori*-naïve EGC, and *H. pylori* infection EGC

Characteristics	<i>H. pylori</i> eradication EGC			<i>H. pylori</i> -naïve EGC			<i>H. pylori</i> infection EGC		
	OR	95%CI	<i>P</i> value	OR	95%CI	<i>P</i> value	OR	95%CI	<i>P</i> value
Sex	0.70	0.05-9.22	0.788	0.69	0.23-2.11	0.515	1.82	0.29-11.29	0.520
Female vs Male									
Age, year	1.20	1.05-1.37	0.008	1.13	1.06-1.19	<0.001	1.12	1.02-1.22	0.014
Smoking	15.84	0.75-334.67	0.076	5.70	1.42-22.96	0.014	8.29	0.34-201.66	0.194
Yes vs No									
Drinking	2.82	0.17-47.58	0.473	3.98	1.02-15.59	0.047	12.91	1.42-117.8	0.023
Yes vs No									
Educational level	0.06	0.00-1.45	0.084	0.58	0.20-1.73	0.330	0.09	0.01-1.42	0.088
Above vs below high school									
Clinical symptoms	4.64	0.57-37.59	0.151	2.87	0.88-9.35	0.080	/	/	/
Yes vs No									
Hypertension	/	/	/	1.49	0.54-4.10	0.441	0.32	0.04-2.94	0.313

Yes vs No									
Diabetes	/	/	/	1.58	0.38-6.48	0.528	/	/	/
Yes vs No									
Cardiac and cerebral diseases	/	/	/	3.20	0.71-14.47	0.131	68	0-987.7	0.997
Yes vs No									
Digestive comorbidities	3.57	0.35-36.60	0.284	5.32	1.57-18.03	0.003	6.	1.02-43.	0.048
Yes vs No									
CCI†	1.72	0.53-5.55	0.367	1.25	0.73-2.16	0.418	0.	0.08-4.0	0.562
Aspirin	/	/	/	4.38	0.41-46.76	0.221	56	3	/
Yes vs No									
Metformin	/	/	/	5.47	0.40-75.04	0.203	/	/	/
Yes vs No									
Hard food	/	/	/	1264.85	0.00-1	0.998	/	/	/
Frequent vs Occasional									
Fried food	0.13	0.00-4.74	0.265	/	/	/	/	/	/
Frequent vs Occasional									
Smoked food	8.78	0.29-267.4	0.213	9.97	1.54-64.6	0.016	/	/	/

4

7

Frequent vs
Occasional

Hot food	11.2	0.70-182.9	0.088	3.59	1.07-12.1	0.039	/	/	/
	8	8			1				

Frequent vs
Occasional

Onion and garlic	/	/	/	5.26	1.21-22.8	0.027	3.	0.54-25.	0.186
					8		67	08	

Frequent vs
Occasional

Legumes	0.08	0.01-0.76	0.028	0.17	0.06-0.51	0.002	0.	0.02-0.9	0.045
							14	6	

Frequent vs
Occasional

Nuts	0.04	0.00-0.55	0.017	0.24	0.08-0.77	0.015	0.	0.02-0.8	0.035
							11	6	

Frequent vs
Occasional
