

Supporting Information

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Table S 1 Mass spectrometric parameters to determine cotinine and CYMA in urine samples (AB Sciex QTrap 5500).

	Q1	Q3	dwell	DP	EP	CE	CXP	CUR	CAD	IS	TEM	GS1	GS2
cotinine 1	177.0	80.1	250	121	10	31	10	25	medium	2000	500	60	60
cotinine 2	177.0	98.1	250	121	10	29	10	25	medium	2000	500	60	60
D ₃ -cotinine	179.9	80.1	250	121	10	35	8	25	medium	2000	500	60	60
CYMA 1	215.0	162.0	250	-30	-10	-12	-13	25	medium	-2000	500	60	60
CYMA 2	215.0	86.1	250	-30	-10	-18	-7	25	medium	-2000	500	60	60

Q1 quadrupole 1 (*m/z*); Q3 quadrupole 3 (*m/z*); dwell time (msec); DP declustering potential (V); EP entrance potential (V); CE collision energy (V); CXP cell exit potential (V); CUR curtain gas (psi); CAD collisionally activated dissociation gas; IS ion spray voltage (V); TEM temperature (°C); GS1 nebulizer gas N₂ (psi); GS2 turbo heater gas N₂ (psi)

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Table S 2 Overview of the individual acrylamide intake (nmol/d) during the 10-day study for all volunteers. Volunteer vegan-male-5 quit after nine days.

volunteer no.	Omnivore male					Omnivore female					Vegan male					Vegan female				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
day 1	149	43	62	86	81	400	38	900	451	162	1681	323	157	665	297	2112	70	41	426	1061
day 2	501	198	166	570	336	37	84	139	449	346	1003	633	150	390	283	13	472	546	234	84
day 3	765	68	50	114	537	34	750	92	261	219	788	177	206	371	191	41	1593	0	188	0
day 4	164	461	34	131	223	29	6	516	180	163	30	426	277	41	167	119	649	0	503	84
day 5	208	705	216	1091	166	1097	0	365	425	193	1523	232	271	33	18	261	720	0	282	257
day 6	199	299	125	113	233	109	28	124	696	606	935	97	653	33	144	48	275	0	325	175
day 7	259	98	277	202	79	140	32	186	157	66	2200	511	489	39	553	214	339	0	303	0
day 8	72	344	260	81	18	189	149	116	681	91	559	278	187	17	332	574	127	0	317	0
day 9	306	841	59	339	190	300	48	92	370	44	139	707	374	76	259	215	435	326	217	0
day 10	0	98	42	92	82	50	143	75	619	97	104	271	262	629	-	595	701	0	135	0

Table S 3 Individual AA intake (μg) of each volunteer grouped into different food categories and total intake (μg).

volunteer no.	Omnivore male					Omnivore female					Vegan male					Vegan female				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
potato p.	107	32	11	132	32	133	0	118	43	30	394	0	57	67	9	148	48	0	0	96
heated p.	20	10	18	21	69	10	51	5	30	42	218	76	84	61	12	122	8	60	8	5
bread	44	18	11	8	9	6	3	25	0	9	20	132	11	33	41	1	196	5	110	17
bakery goods	1	89	14	11	6	1	23	0	150	7	4	0	0	1	37	0	0	0	61	0
coffee	0	17	19	16	11	0	14	23	0	18	0	44	0	0	19	0	3	0	19	0
total intake	186	224	92	200	138	169	91	185	305	141	637	260	215	163	159	298	383	65	208	118

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Table S 4 Overview of the individual AAMA excretion (nmol/d) during the 10-day study for all volunteers. Volunteer vegan-male-5 quit after nine days.

volunteer no.	Omnivore male					Omnivore female					Vegan male					Vegan female				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
day 1	286	482	277	307	297	323	113	138	288	303	660	331	552	399	539	838	142	107	799	694
day 2	419	270	160	235	348	185	76	185	281	380	716	376	281	392	415	559	165	185	545	503
day 3	514	349	209	213	413	98	179	200	249	312	639	310	307	428	304	304	396	105	738	126
day 4	220	367	182	237	482	121	170	231	206	310	454	281	290	375	237	261	346	75	615	174
day 5	185	513	179	508	332	460	90	254	215	284	426	302	348	290	205	508	346	58	591	309
day 6	335	514	189	281	293	320	73	155	338	294	873	286	391	124	209	737	290	46	958	221
day 7	218	414	254	361	304	174	74	166	257	241	615	188	434	163	317	478	464	49	1062	259
day 8	159	336	228	232	280	185	98	122	242	219	559	274	310	165	305	387	231	53	1338	179
day 9	161	268	197	169	225	303	132	170	255	229	352	385	364	185	273	278	217	131	706	176
day 10	166	329	176	240	250	211	118	121	217	208	246	232	271	276	-	264	369	150	687	121

Table S 5 Overview of the individual GAMA excretion (nmol/d) during the 10-day study for all volunteers. Volunteer vegan-male-5 quit after nine days.

volunteer no.	Omnivore male					Omnivore female					Vegan male					Vegan female				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
day 1	47	68	52	80	60	37	18	19	46	41	58	44	109	75	71	55	25	29	103	79
day 2	60	43	30	52	53	31	11	21	47	45	74	40	58	62	59	49	20	32	75	88
day 3	62	58	37	54	61	23	17	27	43	37	84	36	49	69	52	34	33	32	81	39
day 4	46	51	38	61	61	24	22	30	37	37	63	36	45	67	47	41	38	26	61	44
day 5	38	67	34	85	50	34	16	31	41	36	53	37	50	58	50	37	32	23	56	55
day 6	49	70	34	61	47	41	14	19	49	35	93	40	47	32	47	63	32	17	61	49
day 7	44	58	39	74	50	36	14	23	50	31	78	26	53	39	47	99	42	17	65	38
day 8	37	55	38	52	49	34	14	18	41	33	65	36	52	37	47	59	31	16	77	43
day 9	33	39	36	44	36	42	17	25	43	32	62	38	52	37	48	56	26	17	77	47
day 10	33	52	32	56	47	40	15	17	27	29	51	32	45	42	-	44	33	24	68	35

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Table S 6 Overview of the individual cotinine excretion (nmol/d) during the 10-day study for 16 of 20 volunteers. Volunteer vegan-male-5 quit after nine days.

volunteer no.	Omnivore male				Omnivore female				Vegan male				Vegan female			
	1	2	3	4	1	2	4	5	1	2	4	5	1	3	4	5
day 1	0	277	235	18	0	37	0	1283	0	4	7	1	5	0	444	39
day 2	0	88	36	8	0	13	0	497	5	4	0	5	2	0	271	0
day 3	0	40	26	8	0	5	0	130	0	11	0	10	0	0	190	0
day 4	0	11	4	6	0	3	0	93	0	5	0	3	0	0	522	0
day 5	0	18	8	3	0	4	0	41	0	1	0	2	3	0	304	0
day 6	0	11	6	2	0	35	0	24	0	0	1	1	8	0	265	0
day 7	0	4	2	3	0	30	0	12	0	0	0	2	0	0	534	0
day 8	0	12	4	1	0	13	0	8	0	0	0	2	3	0	468	0
day 9	0	2	3	1	0	6	0	6	0	0	0	2	1	0	187	0
day 10	0	5	0	0	0	25	0	5	0	0	0	-	0	0	550	0

Table S 7 Overview of the individual CYMA excretion (nmol/d) during the 10-day study for 16 of 20 volunteers. Volunteer vegan-male-5 quit after nine days.

volunteer no.	Omnivore male				Omnivore female				Vegan male				Vegan female			
	1	2	3	4	1	2	4	5	1	2	4	5	1	3	4	5
day 1	7.1	11.0	6.1	2.1	0.6	1.0	0.8	10.5	0.4	0.9	0.6	0.8	0.7	0.6	22.9	1.2
day 2	0.6	4.5	2.4	1.3	0.4	0.6	0.9	6.1	0.5	1.4	0.5	1.7	0.8	0.6	31.9	0.5
day 3	0.4	5.8	2.7	1.5	0.4	0.6	0.6	5.1	0.5	1.0	0.3	1.3	0.5	0.3	57.1	0.3
day 4	0.3	4.7	2.7	1.9	0.4	0.7	0.7	5.4	0.5	0.7	0.4	0.8	0.9	0.3	19.6	0.7
day 5	0.4	4.9	2.0	1.7	0.4	0.8	0.7	5.1	0.4	0.6	0.3	0.7	1.7	0.3	42.3	0.9
day 6	0.6	5.2	2.0	1.6	0.6	4.4	0.8	5.3	1.0	0.7	0.2	0.6	1.5	0.3	57.8	0.6
day 7	0.3	4.3	2.1	1.8	0.3	3.4	0.6	3.9	0.4	0.4	0.2	0.7	0.9	0.4	71.2	0.4
day 8	0.3	4.4	1.8	1.2	0.3	0.6	0.5	4.7	0.3	0.5	0.3	0.7	1.0	0.6	43.9	0.4
day 9	0.3	2.8	2.0	1.3	0.3	0.8	0.4	5.1	0.4	0.6	0.4	0.8	0.7	0.4	31.9	0.6
day 10	0.4	4.3	1.7	1.5	0.3	0.9	0.2	4.0	0.5	1.4	0.4	-	0.5	0.6	47.3	0.6