

Biogenic amines and polyamines in food

Contents of biogenic amines and polyamines (histamine, tyramine, phenylethylamine, tryptamine, cadaverine, putrescine, serotonin, agmatine, spermidine) in food

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Download file: <http://www.histamine-intolerance.info/resources/HistamineIntoleranceFood.pdf>

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Food	Histamine mg/kg	Tyramine mg/kg	Phenylethyl- amine mg/kg	Tryptamine mg/kg	Cadaverine mg/kg	Putrescine mg/kg	Reference	Histamine liberators	DAO blockers
CHEESE									
Blue vein, pasteurized milk (7 weeks of ripening)	<DL-90	10-185	<DL	<DL-6	3-491	<DL-117	Komprda2008		
Brie cheese	2	440			2	5	ALBA1996		
Brie cheese from farmhouse	87	932			1545	619	ALBA1996		
Camembert cheese	5	154		60	480	300	ALBA1996		
Camembert cheese from farmhouse	250	821			1530	469	ALBA1996		
Cheddar cheese	1710	783	40	1	240	370	ALBA1996		
Cheddar, young						10-20	Barðoc21993		
Cheddar, ripened						650	Barðoc21993		
Cottage cheese	0	1.3	0				ALBA1996		
Danablu cheese	341	700				13	145	ALBA1996	
Dutch-type, hard, pasteurized milk (22 weeks of ripening)	2-17	16-300	1-54	1-2		1-2	6-61	Komprda2007	
Dutch-type, semihard, pasteurized milk (25 weeks of ripening)	22-59	5-392					1-132	Komprda2008	
Edam cheese (young)	3	141	12			17	18	ALBA1996	
Egyptian blue cheese		2010						Rabie2011	
Emmentaler cheese	283	437				79	211	ALBA1996	
Feta	14	560				7	0	ALBA1996	
Goat cheese	33	791				134	61	ALBA1996	
Goat cheese (13 weeks of ripening)	10	68	37	22	4	34	Novella2002		
Goat cheese, raw milk (13 weeks of ripening)	43-83	325-428	27-92	12	196-314	86-175	Novella2004		
Gorgonzola cheese	1275	1255			2805	680	ALBA1996		
Gouda cheese	350	625	46	(200)	193	265	ALBA1996		
Gouda cheese (12 weeks of ripening)	178-418	337-776					4-42	Leuschner1998	
Greek ovine/goat brined Feta cheese, thermized milk (17 weeks of ripening)	85	246	5	6	83	193	Valsamak2000		
Chuyiro cheese	20	88				29	10	ALBA1996	
Masodam cheese	246	417			1142	3542	ALBA1996		
Mascarpone cheese	527	1521	23		1658	618	ALBA1996		
Mozzarella cheese	0	6			0	0	ALBA1996		
Parmesan cheese	277	75			98	43	ALBA1996		
Pecorino di Farinola (10 farms, 90 days ripening, Italy)	0-22	52-1171	0-127		27-276	10-394	Schirone2011		
Portuguese Azuleiro cheese, raw ovine milk	644-682	358-445			161-231	110-137	Prinho2001		
Portuguese, traditional, raw ovine milk (9 weeks of ripening)	16	176	9	56		207	216	Prinho2004	
Processed	<DL	4-160	8-400	<DL	12-120	4-60	EI-Sayed1996		
Processed	1	1-29	1-2	1	1	1-2	Komprda2005		
Roquefort cheese	64	548	71	(1100)	617	107	ALBA1996		
Semihard Italian, unpasteurized milk (21 weeks of ripening)	117-378	128-394	8-20	2-5	5-30	129-1105	Innocent2002		
Semisoft cheese, pasteurized milk (20 weeks of ripening)	<DL-124	39-770	5-179		6-109	1-13	Schneller1997		
Semisoft cheese, raw milk (20 weeks of ripening)	226-573	400-1478	29-223		280-2369	76-308	Schneller1997		
Sheep cheese	64	145			1274	375	ALBA1996		
Spanish retail cheeses (unripened)	<DL	<1	<DL		<1	<DL-1	Novella2000		
Spanish retail cheeses (ripened)	2-164	<DL-242	<DL-29	<DL-45	4-215	<DL-612	Novella2000		
Spanish traditional cheeses	<DL-928	10-1607					Rog2002		
Spreadable cheese (Dutch)	0	50			44	0	ALBA1996		
Spreadable cheese (non-Dutch)	76	164	60	4	51	21	ALBA1996		
Tilsiter cheese	184	510			147	313	ALBA1996		
Swiss cheese	500	100			680	600	ALBA1996		
Swiss-type (24 weeks of ripening)	750-1290	64-910			17-360	17-360	Petridis1999		

In 2012 I will publish my book about histamine intolerance which will have the complete food list. Subscribe to my news to stay informed: <http://www.histamine-intolerance.info/subscribe.php>

NOTES

1 ppm = 1 mg/kg ; mg/l = mg/kg

<DL less than detection limit