



Swiss Interest Group Histamine Intolerance (SIGHI) <u>www.mastzellaktivierung.info</u> | <u>www.histaminintoleranz.ch</u>

# Food Compatibility List Histamine / Mast Cell Activation

Compatibility list for the diagnostic and therapeutic elimination diet for histaminosis (mast cell activation syndrome MCAS, mastocytosis, histamine intolerance)

## **Compatibility scale**

	Histamine / Mast Cell Activation			
0	Compatible, no symptoms expected at usual in-			
	take			
1	Moderately compatible, minor symptoms, occa-			
	sional consumption of small quantities is often tol-			
	erated			
2	Incompatible, significant symptoms at usual intake			
3	Very poorly tolerated, severe symptoms			
-	No general statement possible			
?	Insufficient or contradictory information			

Only certain variants of this list have implemented these other intolerances in addition to histamine:

	Gluten				
0	Gluten-free				
1	May contain gluten				
3	Contains gluten				
-	No general statement possible				
?	Insufficient or contradictory information				

	Lactose						
0	Free from lactose						
1	Low lactose content or may sometimes contain lactose depending on the recipe						
2	Medium lactose content. Try out acceptable amount.						
3	High lactose content						
-	No general statement possible						
?	Insufficient or contradictory information						

This list exists in numerous **variants**:

- Sorted by compatibility or alphabetically
- With or without subdivision into categories
- Thematically limited to histamine or supplemented with information on other intolerances
- Translated into various languages

You can find out which variant this document refers to in the header of each table page below.

## **Dietary instructions**

IMPORTANT: This list alone is not sufficient dietary guidance. Tolerance can also be influenced by other factors such as freshness or processing methods. **Detailed instructions and further supplementary information, which may be decisive for the success of the diet, can be found on our websites:** 

# www.mastzellaktivierung.info

# www.histaminintoleranz.ch

Additives can also be hidden in basic foods where you would not expect them. Therefore, always read the list of ingredients on the packaging! Our classification always applies only to the pure food without additives! For example, only for pure natural cream, but not for cream with additives.

The "Histamine" column does NOT show the histamine content of the ingredients, but the perceived COMPATIBILITY for those sensitive to histamine. The compatibility results from several mostly unknown factors that cannot be precisely determined: liberators of mast cell mediators ("histamine liberators"), histamine, other biogenic amines, DAO inhibitors, consistency, but also mast cell-stabilizing and histamine-lowering ingredients.

**Salicylates** in the small quantities in which they occur naturally in plants are noticeable as a mast cell-activating trigger in *only a part* of MCAS sufferers, while other MCAS sufferers can tolerate salicylates well. The salicylate content is therefore *NOT* taken into account as a trigger in the "Histamine" column, but may need to be considered additionally.

#### How triggers disrupt the histamine balance

The presumed reason for the intolerance is indicated in the list with the following letters:

- H!: Highly perishable, rapid histamine formation
- H: High histamine content
- A: Other biogenic amines
- L: Liberators of mast cell mediators (=histamine liberators)
- B: Blockers (=inhibitors) of diamine oxidase or other histamine-degrading enzymes

Depending on the physical cause, not all foods are equally incompatible for all sufferers. Some people react more strongly to liberators than to histamine or vice versa. Tolerance is also dosedependent and there are huge individual differences in the degree of severity. It is therefore not possible to make a clear distinction between compatible and incompatible foods; it is always a matter of experience for the individual person concerned. You should therefore only follow this compatibility list consistently at the beginning of the dietary change. In the initial phase of the elimination diet, the list serves as a rough guide to help you reduce the intensity of your symptoms as quickly and reliably as possible, despite your lack of experience.

After approx. 4-6 weeks, start to try out what *you* can tolerate and in what quantities, given *your individual* sensitivity, so as not to restrict your-self unnecessarily in the long term. You may be able to tolerate much more, or perhaps less, food

than those recommended in this list. *In the long term*, you should therefore not be guided by any list, but by your own experiences. Everything is allowed as long as it is well tolerated. On the far left you will find a column in which you can enter your own assessment.

### Assessing the compatibility of compound products

This list is limited to basic foods, ingredients and additives. Products that are composed of multiple variable ingredients are generally *not* listed here. Rule of thumb for assessing the compatibility of whole meals or other composite products and preparations: Look for the list of ingredients on the packaging or in the package insert or ask the manufacturer. Read the list of ingredients very carefully. If all the ingredients are compatible and the product is not fermented or microbially matured, then the product is also compatible - at least in a sufficiently fresh state. If not, you must either consider it incompatible as a precaution or test for yourself how well *you* tolerate it at *your individual* tolerance threshold.

Information such as *"May contain traces of ..."* need not be paid attention to by HIT/MCAD sufferers. These small amounts have no effect as long as you are not allergic to them.

Many products such as wine, cheese, fish, meat preparations etc. can vary greatly in their histamine content depending on the variety, manufacturer, batch and storage period. It is therefore possible that the same type of sausage or cheese may sometimes prove to be tolerable and sometimes intolerable, without this being foreseeable.

The transition between "compatible" and "incompatible" is fluid and dose-dependent for some intolerances (histaminosis, lactose, fructose). The degree of severity can vary greatly from person to person and can also depend on the current mood of the day. It is therefore not possible to make a clear distinction between compatible and incompatible foods; it is always a matter of experience for the individual concerned.

The list is constantly updated to reflect the current state of knowledge. Please therefore regularly replace this version with the latest version on the website.

#### **Book recommendation**:



The cookbook **"Mast-Cell-Friendly and Low-Histamine Cooking"** by Heinz Lamprecht greatly facilitates the demanding change of diet and provides more than 180 recipes on 206 pages, which also consistently take into account histamine liberators and are therefore also suitable for more severely affected persons. Many of the recipes are also lactose-free and gluten-free

ISBN 978-3-347-59507-1 (hardcover edition)

ISBN 978-3-347-59506-4 (softcover edition)

Buy this book at tredition.com

Available in English and German.

### Disclaimer

This information cannot replace a visit to the doctor but is only intended to support and supplement the doctor-patient relationship. The use of this information is at the user's own risk. No liability can be accepted for direct damage or consequential damage of any kind.

#### References

The compatibility assessments are based on various sources weighted according to their plausibility:

- Experience reports from selected patients without other intolerances or allergies, who react particularly clearly and reproducibly to individual triggers, who can reliably achieve freedom from symptoms by avoiding all triggers, and who have a great deal of experience in assessing the tolerance of foods after countless meticulous self-experiments.
- Experiences of other patient organizations in other countries
- Testimonials from self-help groups and website visitors
- Food lists and patient information sheets given to patients by healthcare professionals and hospitals.
- Scientific literature
- Books about histamine intolerance
- Posts on internet forums and blogs

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Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Designation EN	Remarks EN
Anima	al fo	000	ls	$\perp$		
Egg	s					
	1			L	egg white	Mast cell activating especially raw, but even cooked
	0				egg yolk	
	1			L	eggs, chicken egg, whole egg	Yolk is compatible. Egg white is mast cell activating especially raw, but even cooked.
	0			T	quail's egg, quail eggs	
Dair	уp	oro	duc	ts		
	2	Η	A	?	blue cheeses, mold cheeses	
	1	н	A		butter: cultured butter, mildly soured butter	May contain small amounts of histamine. Usually well tolerated.
	0				butter: sweet cream butter	Sweet cream butter is the normal butter, not fermented with bacteria.
	0				Butterkaese	
	1	Η			buttermilk (slightly sour, starting to ferment)	Lactic acid fermentation
	2	Η	Α		Camembert	
	2	Η	Α		cheddar cheese	
	2	Н	A		cheese made from unpasteurised "raw" milk	Depending on hygiene. Higher risk than for cheese made from pasteurized milk
	3	Η	Α		cheese: hard cheese, all well matured cheeses	
	0				cream cheeses (means: very young cheeses), plain, without additives	
	0				cream, sweet, without additives	Tolerated if unfermented. Always check for additives. Mostly contains intolerated thickeners or stabilizers, e.g. E407, E410!
	0				curd cheese, quark	
	1	?		?	dried milk, dry milk, powdered milk	Sometimes well tolerated, sometimes not.
	0			?	ewe's milk, sheep's milk	
	0				farmer's cheese (a type of fresh cheese), quark	
	1	Η	Α	Т	feta cheese	
	2	Н	Α	Τ	fontina cheese	
	0			Τ	Geheimratskaese, Geheimrats cheese	
	1				ghee	Histamine content depends on the production method!
	0			?	goat's milk, goat milk	
	2				Gouda cheese (old)	
	0				Gouda cheese (young)	Eat small quantities only.
	1	Н	Α		kefir, keefir, kephir	
	1	н		?	lactose-free milk	Sometimes well tolerated, sometimes slightly worse tolerated than regular milk.
	0				Mascarpone cheese	
	1	?		?	milk powder, powdered milk	Sometimes well tolerated, sometimes not.
	1	н		?	milk, lactose-free	Sometimes well tolerated, sometimes slightly worse tolerated than regular milk.

		<b>a</b> 1				rood compatibility list EN. Histamilie, sorting.	
Own assessment	Histamine	Rich in Histamine	Other Amines	liberator	Blocker	Designation EN	Remarks EN
	0	Щ		<u>1</u> ?	ш	milk, pasteurised	Milk may be incompatible, as long as the bowel is still
						11	irritated.
	0			?		milk, UHT	UHT = ultra-high temperature processing, ultra-heat treatment
$\square$	2	Н	Α	?		mold cheeses, mould cheeses	
$\square$	0					Mozzarella cheese	
	1	?		?		powdered milk, milk powder	Sometimes well tolerated, sometimes not.
	2	Η	Α			processed cheese, process cheese	
	2	Η	Α			products made from unprocessed (raw) milk	
	0					quark	
	2	Н	Α			Raclette cheese	
	0	H!	?	?		raw milk	Perishable due to higher bacterial count. Use only fresh.
	2	?	?	?		ready made cheese preparations (with other/further ingredients)	Depending on the ingredients and freshness
	0					Ricotta cheese	Mostly produced with $\rightarrow$ citric acid
	2	Н	Α			Roquefort cheese	
	0		Π	?		sheep's milk, sheep milk	
	1	Н				sourcream	Lactic acid fermentation! Slightly histamine containing
	0					whey: sour whey	
	0					whey: sweet whey	
	1	Η	?			yoghurt (natural yoghurt)	Varies by product
Mea	at						
		H!				beef (fresh)	
		H!				chicken	
		Η				dried meat (any kind)	
		Η		?		dry-cured ham	
		H!				duck	
	2	H!		L		entrails	
	1	н				game	Mostly matured meat, but fresh wild boar is well tolerated.
		Н				ham (dried, cured)	
		H!		L		innards	
	0	H!				minced meat (if eaten immediately after its production)	Strongly depends on the freshness
		H!				minced meat (open sale or pre-packed)	Strongly depends on the freshness
	0	H!				ostrich	
		H!		?		pork (fresh and untreated)	Controversial. Mostly well tolerated but very perishable. Histamine liberator -> itching?
	0	H!				poultry meat	
		H!				quail	
		Η				salami	
		Η				sausages of all kinds	A few acceptable exceptions are possible.
		TT	?	2		smoked fish (any)	

Own assessment	Histamine		Other Amines		Blocker		Remarks EN
	3	Н	?	?		smoked meat (any)	
	0					tongue (veal, beef)	Check for intolerated ingredients if processed ready to eat. No smoked products.
	0	H!				turkey	
	0	H!				veal (fresh)	
	1	н	?			venison	Mostly matured meat, but fresh wild boar is well tolerated.
	1	н	?	Π		wild meat	Mostly matured meat, but fresh wild boar is well tolerated.
Fisł	ı			H			
		н	A	$\square$		anchovies	
		H!		Η		fish (freshly caught or frozen)	Extremely depending on freshness and species
	_	H!		$\square$		fish (in the shop in the cooling rack or on ice)	Extremely depending on freshness and species
	2			H		salmon smoked	
	2			H		smoked salmon	
		H!		Η		trout (freshwater): brown trout, brook trout, rainbow	Perishable. Rapid histamine formation.
						trout	-
	3	н	A	H		tuna	
Sea	foo	d		H			
		H!		L		bivalves (mussels, oisters, clams, scallops,)	
		H!		L		crab	
		H!		L		crab	
		H!		L	_	crawfish	
		 H!		L		crayfish	
		H!		L		langouste	
		H!		L		lobster	
		11. H!		L	_	oysters	
		11: H!		L	_	prawn	
		п: Н!		L		rock lobsters	
		п: Н!		$\square$	_		
				L	_	seafood, sea food	(e.g. mussels, oisters, crab, lobster, shrimp)
		H!		L	_	shellfish	
		H!		L		shrimp	
		H!		L		spiny lobsters	
Mis	_	lan	eo	us			
	0			Ц		lard	
eget				_			
Stai	rch	su	pp	lier	_		
	0					amaranth, Amaranthus	May cause diarrhea in some cases. This entry refers to the pseudo grain called amaranth, (plant genus Amaranthus). Not to be confused with the azo dye amaranth (an artificial food coloring).
	1	?				baked goods	Problems are often caused by: malt, iodine, long fermentation times of yeast or sourdough, possibly also AT grains (certain varieties with amylase-tryptase-inhibitors, undeclared)
	1					barley	

		_	_		_	Food compatibility list EN. Histannine, Sorting.	
Own assessment	Histamine			_	Blocker	Designation EN	Remarks EN
	2	?	?	?		barley malt, malt, malt extract	
	1	?				bread	Problematic ingredients: malt, iodine, long fermentation times of yeast or sourdough, possibly also ATI grains (certain varieties with amylase-tryptase-inhibitors, undeclared)
	2		?	?		buckwheat	Only incompatible, if not thoroughly peeled?
	1					bulgur, burghul, riffoth	Parboiled wheat
	?					cassava, manioc (root tubers)	Cyanide inhibits iodine uptake. Some detoxification methods may produce histamine.
	0					chestnut, sweet chestnut	
	0			?		corn, sweet corn, maize kernels: canned corn	Hard to digest. Possibly incompatible after long-term storage or in large quantities?
	0			!		cornflakes (if no additives such as malt or folic acid)	Be careful with malt, folic acid
	0					Einkorn wheat	
	0					Emmer wheat, hulled wheat	
	0					grünkern, green spelt	Spelt that has been harvested when half ripe and then artificially dried
	0					hemp seeds (Cannabis sativa)	The legal non-psychoactive subspecies. Too much hemp protein can cause diarrhea.
	0					KAMUT®, Khorasan wheat	Prefer old varieties (e.g. KAMUT®). Modern ATI-varieties modified by cultivation are often not well tolerated.
	0					Khorasan wheat or Oriental wheat (Triticum	Prefer old varieties (e.g. KAMUT®). Modern ATI-varieties
						turgidum ssp. turanicum), KAMUT®	modified by cultivation are often not well tolerated.
	0			?		maize: canned maize, tinned maize	Hard to digest. Possibly incompatible after long-term storage or in large quantities?
	2	?	?	?		malt, malt extract, barley malt	
	0					maltodextrin	
	?					manioc, cassava (root tubers)	Cyanide inhibits iodine uptake. Some detoxification methods may produce histamine.
	0					millet	
	0					oats, oat flakes, oatmeal	Avoid vitaminized products.
	0					pearl sago	
	0					potato with peel	Dark place! Green points are poisonous! Possibly incompatible for those with salicylate intolerance
	0					potato, new, with peel	Dark place! Green points are poisonous! Possibly incompatible for those with salicylate intolerance
	0					potato, peeled	Dark place! Green points are poisonous!
	0					quinoa	Possibly not always well tolerated?
	0					rice	After cooking, store in the fridge up to 12-24 hours max.
	0					rice buiscuits, rice cakes	Slightly worse tolerated than freshly cooked rice
	0					rice crispies	Be careful with malt, folic acid
	0					rice noodles	Slightly worse tolerated than freshly cooked rice
	1	Η				rye	Barely tolerated
	0	Н	$\vdash$	$\vdash$		saqo	
	0					Jugo	

Own assessment	Histamine	Rich in Histamine	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	0			?		spelt	Prefer old varieties. Modern ATI-varieties modified by cultivation are often not well tolerated.
	2			L		sunflower seeds	
	0			?		sweet corn, maize kernels: corn on the cob, fresh / pasteurised	Hard to digest.
	0			?		sweet corn, maize kernels: dried (maize meal, maize	
						flour)	
	0					sweet potato	
	0					tapioca starch	
	1	?		?		wheat	Uneven. Mostly digestive problems like flatulence.
	2		Α	L		wheat germ	Putrescine, spermine, spermidine, cadaverine
	0					wild rice (Zizania)	Wild rice is not botanically related to rice.
	0					yam	
Nut	ts						
	1					almond	Small amounts are well tolerated. May cause e.g. sleep problems.
	0					Brazil nut	Max. 1-2 nuts per day are a good source of selenium
	1		А	L		cashews, cashew nut	
	0					chufa sedge, tiger nut (Cyperus esculentus)	Actually not a nut, but tuber (thickening of stolons)
	2			?		chufa sedge, tiger nut (Cyperus esculentus), roasted	Actually not a nut, but tuber (thickening of stolons)
	0					earth almond, chufa, tigernuts	Actually not a nut, but tuber (thickening of stolons)
	1			L		hazelnut	
	0					macadamia	
	2					peanuts	
	0					pecan nut	
	1			?		pine nuts	Several species. Maybe not all of them with the same compatibility?
	0					pistachio	
	0					tigernuts, tiger nut sedge	Actually not a nut, but tuber (thickening of stolons)
	3		Α	L		walnut	
	0					yellow nutsedge, tiger nut	Actually not a nut, but tuber (thickening of stolons)
Fat	s ar	d d	oils	:			
	0					black caraway oil (Nigella sativa)	antiallergic
	0					canola oil	
	0					coconut fat, coconut oil, copra oil	Very recommended
	0					common evening-primrose oil (Oenothera biennis)	
	0					corn oil, maize oil	
	0					dendê oil, palm oil	Should not be bought for ecological reasons. Apart from that, it is recommended.
	0					evening primrose oil (Oenothera biennis)	
	0	$\square$				fennel flower oil (Nigella sativa)	antiallergic
	0	Π				flaxseed oil, flax oil, linseed oil	
	0	П				linseed oil, flaxseed oil, flax oil	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	0					maize oil, corn oil	
	0					margarine (check for intolerated additives)	Check for incompatible additives
	0					Nigella sativa oil	antiallergic
	0					nutmeg flower oil (Nigella sativa)	antiallergic
	0					olive oil	Incompatible for those with salicylate intolerance
	0					palm oil, palm fat, palm kernel oil	Should not be bought for ecological reasons. Apart from that, it is recommended.
	0					primrose oil (Oenothera biennis)	
	0		Α			pumpkin seed oil	This oil is made by pressing roasted, hulled pumpkin seeds (pepitas), from a local variety of pumpkin, the Styrian oil pumpkin. Contains a lot of spermidine (a biogenic amine). Nevertheless tolerated in usual quantities.
	0					rape seed oil	
	0					Roman coriander oil (Nigella sativa)	antiallergic
	0					safflower oil	
	1					soybean oil	
	0					sunflower oil	A single dose is no problem, but is inflammatory in the long term.
	2			?		walnut oil	
Veg	eta	ble	s				
	0					sunroot, sunchoke, Jerusalem artichoke, topinambur	Shoot tuber prepared as a root vegetable. Not suitable for people sensitive to salicylates.
	0					artichoke	
	0					asparagus	
				?	?	aubergine	
		Η		L		avocado	
	?					bamboo shoots	
	2			L		beans and pulses in general	Applies to virtually all types / varieties. Some tolerated
	0	$\square$	$\square$			beetroot	exceptions are possible in some cases.
	2					bell pepper (hot)	
	0	Η	Η	$\square$		bell pepper (sweet)	
	0	Η	Η			blanched celery	
	0					bok choy	
	2	Н	Н	Н		borlotti beans	
		н	?	?	?	brinjal	
	2	H	H	H	-	broad bean, fava bean, faba bean (Vicia faba)	
	0					broccoli	
	1	Η	Η	L		Brussels sprouts	
	0					cabbage, green or white	
	0					cabbages, cabbage varieties (except Brussels sprouts, kohlrabi)	
	0					carrot	
	0					cauliflower	

		e.					
Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	0					celeriac, celery root (Apium graveolens var.	
						rapaceum)	
	0					celery cabbage, napa cabbage (Brassica rapa subsp.	
<u> </u>						pekinensis)	
	0					celery: blanched celery, stalk celery (Apium graveolens var. dulce)	
<u> </u>	0	$\square$	_			celery: leaf celery (Apium graveolens var. secalinum)	
						(Aprum graveolens var. secannum)	
	1			?		chard, Swiss chard (Beta vulgaris subsp. vulgaris)	
	?					chayote	Possibly not well tolerated.
	2					chickpeas	
	0					chicory (Cichorium intybus)	
	1			?		chili pepper, hot, fresh	Hotness is irritating
	2	Н	Α	?		chilli sauce, hot, fermented	Irritating pungency plus biogenic amines
	?					choko	Possibly not well tolerated.
	0					corn salad, lamb's lettuce (Valerianella locusta)	
	0					courgette	
	?			?		cress: garden cress (Lepidium sativum)	
	0					cucumber	
		Н				cucumbers pickled in brine (fermented!)	Cucumbers preserved in brine by lactic acid fermentation.
	2	Н	?	?	?	eggplant	
	0					endive (Cichorium endivia)	
	0					fennel	
	?			?		garden cress (Lepidium sativum)	
	1					garlic	In small amounts, usually well tolerated after cooking
	1					German turnip	
	0					gourds	
	1					green beans	Can be well tolerated in some cases
	1			L		horseradish	
	0					iceberg lettuce, iceberg salad	
	0					Jerusalem artichoke (Helianthus tuberosus), sunroot, sunchoke, wild sunflower, topinambur, earth apple	Shoot tuber prepared as a root vegetable. Not suitable for people sensitive to salicylates.
	1	$\vdash$	Η	Η		kale, brown cabbage, curly cabbage	
	2			L		kelp (large brown algae or seaweeds, Laminariales)	e.g. as an ingredient in seasoned salt / herbal salt
	0					knob celery, celeriac	
	1					kohlrabi	
	1	$\square$				ladies' fingers, okra, ochro	
	0	$\square$		Η		lamb's lettuce, corn salad (Valerianella locusta)	
	0					leaf celery	
	1	$\square$		?		leek	In small amounts, usually well tolerated

Own assessment	<b>b</b> Histamine	Rich in Histamine	Dother Amines	_	Blocker	Designation EN legumes (soy, beans, pulses, peas, lentils)	Remarks EN
	2		H			lentils	
$\vdash$	0	H	Η		_	lettuce iceberg	
$\vdash$	0	H	Η			lettuce: head and leaf lettuces	Rating applies to the plant without dressing
	0	H	Η			marrow	
	0	H	Н		_	Mild onion of the Cevennes (France)	
	?	H	Η		-	mung beans, mung bean sprouts	
	0	H	Η			napa cabbage	
$\vdash$	2	н	?	?	_	nettle: stinging nettle, common nettle, burn nettle	
						(Urtica dioica)	
	1					okra, okro, ochro, ladies' fingers	
	2	?	?			olives	Usually fermented, sometimes with intolerated ingredients
	1		Π	L		onion	Incompatible in large quantities
	0					pak choi	
	0					parsnip	
	1					peas	
	2		Π	L		perennial wall-rocket (Diplotaxis tenuifolia)	
	3	Н	Π			pickled cabbage	
	2	н	?			pickled cucumber	Can be tolerated depending on the ingredients (spirit vinegar or acetic acid instead of vinegar; no mustard). Do not confuse with fermented pickled gherkins!
	2	Н	?			pickled gherkin	Can be tolerated depending on the ingredients (spirit vinegar or acetic acid instead of vinegar; no mustard). Do not confuse with fermented pickled gherkins!
	2	н	?			pickled vegetables	Can be tolerated depending on the ingredients (spirit vinegar or acetic acid instead of vinegar; no mustard). Do not confuse with fermented pickled gherkins!
	0					pok choi	
	0					pumpkins (various varieties)	
	1					radishes (genus Raphanus), hot varieties	
	0					radishes (genus Raphanus), mild varieties	
	0			?		red cabbage	
	3	Η				sauerkraut	
	1			?		Savoy cabbage	
	1			?		silver beet, silverbeet, chard	
	1					snow peas	
	2					soy (soy beans, soy flour)	
	2					spinach	
	0					squashes	
	0					stalk celery	
	2	H	?	?		stinging nettle, common nettle, burn nettle (Urtica dioica)	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator		Designation EN	Remarks EN
	1			?		Swiss chard (Beta vulgaris subsp. vulgaris)	
	2	Η		L		tomato	
	0					Tropea onion	
	1					turnip	
	1					turnip cabbage	
	0					turnip-rooted celery, celeriac	
	0					white onion	A type of onion that has a pure white skin and a sweet, mild white flesh (not the common onion).
	0					zucchini	
Herl	bs						
	0					basil	
	1			L		bear leek (Allium ursinum)	Small amounts are well tolerated.
	1			L		bear's garlic (Allium ursinum)	Small amounts are well tolerated.
	2					blue fenugreek (Trigonella caerulea)	
	1			L		broad-leaved garlic (Allium ursinum)	Small amounts are well tolerated.
	1			L		buckrams (Allium ursinum)	Small amounts are well tolerated.
	0					chervil (Anthriscus cerefolium), French parsley,	
				$\downarrow$	-	garden chervil	
	1					chives	Incompatible in large quantities
	2			_	-	clover (trigonella and trifolium species)	For example, fenugreek, blue fenugreek
	0			_	$\rightarrow$	common mint (Mentha spicata)	Incompatible for those with salicylate intolerance
	1					dill	Small amounts usually not a problem. High salicylate content.
	2				$\rightarrow$	fenugreek (Trigonella foenum-graecum)	
Ц	0					French parsley, chervil (Anthriscus cerefolium)	
	0					garden chervil (Anthriscus cerefolium)	
	0				-	garden mint (Mentha spicata)	Incompatible for those with salicylate intolerance
	0					lamb mint, mackerel mint, spearmint (Mentha	Incompatible for those with salicylate intolerance
$\square$	•			+	-	spicata)	
$\square$	0			+	$\rightarrow$	oregano	
	0	$\square$		+	-	parsley	Incompatible for those with salicylate intolerance
	0	$\square$		+	$\rightarrow$	peppermint	Small amounts are well tolerated.
-	1	$\vdash$	$\vdash$	L	-	ramsons (Allium ursinum)	שוויטעוונא מול שלוו וטופומולע.
	0	$\square$		+	-	rosemary	
	0	$\square$		+	$\rightarrow$	sage	
	0	$\vdash$	+	+	-	savory (Satureja hortensis, Satureja montana)	Incompatible for those with salicylate intolerance
			$\square$	+	-	spearmint (Mentha spicata)	For example, fenugreek, blue fenugreek
	2 2	$\square$		+	$\rightarrow$	trigonelle	For example, fenugreek, blue fenugreek
-	_	$\square$		+	-	trigonella wild garlic (Allium ursinum)	Small amounts are well tolerated.
-	1 1	$\vdash$		L		wood garlic (Allium ursinum)	Small amounts are well tolerated.
	-	$\mid$		L	4	wood game (Amum dismum)	סוותו מווסעותה מוכ שכוו נטוכומנכע.
Frui	-	$\square$		+	4	norrola anarola nourder Darbadoa abarry Mart Indian	
	0					acerola, acerola powder, Barbados cherry, West Indian cherry, wild crepe myrtle	
						onony, who orepe myrtic	I

		a					
Own assessment		Rich in Histamine	Other Amines	-		Designation EN	Remarks EN
		Н		L		alligator pear, avocado	
	0					Amarelle cherry, sour cherry	
	0				_	apple	
	?		?			apple pear (Pyrus pyrifolia)	
	0					apple: Golden Delicious	
	0					apricot	
	?					aronia, chokeberries	
	?		?			Asian pear (Pyrus pyrifolia)	
	?					Asimina triloba	
		Η		L		avocado	
	2		Α			banana	(The greener the better tolerated?)
	0					Barbary fig (Opuntia ficus-indica)	Avoid skin contact with the spikes!
	0					blackberry	
	0					blackcurrants	
	0					blueberries	
	?					boysenberry	
	0					cactus pear (Opuntia ficus-indica)	Avoid skin contact with the spikes!
	0					Cape gooseberry (Physalis peruviana)	
	0					carambola, starfruit	
	0					cherry	Controversial
	?		?			Chinese pear (Pyrus pyrifolia)	
	?					chokeberries, red chokeberry (Aronia arbutifolia), black chokeberry (Aronia melanocarpa)	
	2		Α	L		citrus fruits	
	0		?			cocoa butter	Mostly well tolerated
	2		Α	L		cocoa, cocoa powder (chocolate, etc.)	
	1					coconut, coconut shavings, coconut milk, coconut water	Good source of selenium
	?					common pawpaw of NE-USA	
	0					common sea-buckthorn (Hippophaë rhamnoides)	
	0					cowberry	
	0					cranberry, cranberries	
	?		?			date bananas, lady finger bananas	The greener the better tolerated
	0					dates (dried, desiccated)	
	0					dragon fruit, pitaya, pitahaya	Several species are cultivated. Whether they are all compatible is not yet certain.
	0					dwarf cherry, sour cherry	
	0					Elaeagnus angustifolia, Russian olive, silver berry, oleaster, wild olive	Acts against osteoarthritis
	0					elderberry, elderberries	
	?		?		_	fig bananas, lady finger bananas	The greener the better tolerated
	0					figs (fresh or dried)	May be slightly laxative

		<i>a</i> ,				1000 compatibility list EN. Histannine, Solting.	
Own assessment	Histamine	Rich in Histamine	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	U					five-corner, carambola	
	0					goji berry, Chinese wolfberry, Chinese boxthorn,	
<u> </u>	0					Himalayan goji, Tibetan goji	
	0	$\square$			_	goldenberry (Physalis peruviana)	
	0	$\square$	•	- -		gooseberry, gooseberries	
<u> </u>	2 0	$\square$	A ?	<u>ь</u>		grapefruit	
$\vdash$			?	_		grapes	
$\vdash$	2			?		guava	Avoid skin contact with the spikes!
	0					Indian fig opuntia (Opuntia ficus-indica), Barbary fig, cactus pear, spineless cactus, prickly pear, tuna	Avoid skill contact with the spikes:
	?		?			Japanese pear (Pyrus pyrifolia)	
	0					jostaberry	This plant is a hybrid between gooseberry and blackcurrant.
	0					kaki	
	2		?	L		kiwi fruit	
	?		?			Korean pear (Pyrus pyrifolia)	
	?		?			lady finger banana	The greener the better tolerated
	2		Α			lemon	
	2		?	L		lemon peel, lemon zest	
	3		Α	L		lime	
	0					lingonberry	
	?					loganberry	
	0					lychee	
	2					mandarin orange, mandarin, mandarine (Citrus reticulata)	
	1			?		mango	To be debated. Is often well tolerated.
	0			?		melons (except watermelon)	Suspected occasional histamine liberator effects (due to pollutant / pesticide exposure?)
<u> </u>	0	$\mid \mid$				Morello cherry, sour cherry	
<u> </u>	0	$\square$				mulberry	
	?	$\square$	?			nashi pear (Pyrus pyrifolia)	
$\vdash$	?	$\square$	?			naspati (Pyrus pyrifolia)	
<u> </u>	0	$\mid$				nectarine	
$\vdash$	3	$\mid$	A			orange	
<u> </u>	3	$\vdash$	?			orange peel, orange zest	
$\vdash$	2	$\vdash$	A ?	L		papaya, pawpaw	
$\vdash$	? ?	$\mid$	?			papple (Pyrus pyrifolia)	
<u> </u>	? ?	$\mid$				passion fruit, passionfruit	
$\vdash$	_	$\mid$				paw paw	
$\vdash$	0	$\mid$	A			peach	
	-	$\vdash$	А			pear	
	0					pepino, pepino dulce, pepino melon (Solanum muricatum)	

		e.					
Own assessment	Histamine	tich in Histamine	Other Amines	iberator	Blocker	Designation EN	Remarks EN
F	?	Ë	?		Щ	Persian pear (Pyrus pyrifolia)	
$\vdash$	0	H	$\square$			persimmon	
$\vdash$	0	Η	$\square$			Peruvian groundcherry (Physalis peruviana)	
-	0	Н	$\square$			Physalis peruviana, Cape gooseberry	
	2	Н	Α	L		pineapple	
	0					pitaya, pitahaya, dragon fruit	Several species are cultivated. Whether they are all compatible is not yet certain.
	1	Η		L		plum	
	0	Η				pomegranate	
	0	Η				prickly pear (Opuntia ficus-indica)	Avoid skin contact with the spikes!
	1	Η		L		prune	
	1			?		prune plum (Prunus domestica subsp. domestica)	Better tolerated than other plums. Mainly cultivated in Central Europe.
	?	Π				purple granadilla, passionfruit	
	0	П	?			quince	
	0					raisins	Only if not sulphured / without sulphite / without preservatives! High salicylate content!
	2					raspberry	
	0					redcurrants, red currant	
	1					rhubarb	Controversial. Often well tolerated. Oxalic acid.
	1			L		rose hip, rosehip, rose haw, rose hep	
	0					Russian olive, silver berry, Elaeagnus angustifolia	Acts against osteoarthritis
	0					sallow thorn	
	?		?			sand pear (Pyrus pyrifolia)	
	0					sharon fruit	
	0					silver berry, Russian olive, Elaeagnus angustifolia	Acts against osteoarthritis
	0					Solanum muricatum, pepino, pepino dulce, pepino melon	
	0	Ц				sour cherry, sour cherries	
	0	Ц				spineless cactus (Opuntia ficus-indica)	Avoid skin contact with the spikes!
	0	Ц				starfruit, carambola	
	2	$\square$		L		strawberry	
	?	Ш	?			sugar banana, ladyfinger banana	The greener the better tolerated
	?		?			Taiwanese pear (Pyrus pyrifolia)	
	?					tamarillo (Solanum betaceum)	
	0					tart cherry, sour cherry	
	?		?			three-halves pear (Pyrus pyrifolia)	
	0					tuna, prickly pear (Opuntia ficus-indica)	Avoid skin contact with the spikes!
	1			?		watermelon	Suspected histamine liberator effects
	?		?			zodiac pear (Pyrus pyrifolia)	
See	ds,	ker	ne	ls			
	0	$\square$				chia (Salvia hispanica)	
L						1	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator Plocker	Designation EN	Remarks EN
	0				flax seeds	
	0				isabgol, psyllium seed husks	Can be useful both for constipation as well as diarrhea.
	0				ispaghula, psyllium seed husks	Can be useful both for constipation as well as diarrhea.
	0				psyllium seed husks (Plantago ovata)	Can be useful both for constipation as well as diarrhea.
	0		A		pumpkin seeds	Contains a lot of spermidine (a biogenic amine). Nevertheless tolerated in usual quantities.
	1				sesame	May cause diarrhea in some cases but is often well tolerated.
lsh		ms	s, fu	ıngi	, algae, microorganisms	
	3			L	algae and algae derivatives	Extremely rich in iodine
	3			L	brown algae, algae	Extremely rich in iodine
	2				сер	
	3			L	green algae, algae	Extremely rich in iodine
	3			L	kelp, seaweed, algae	Extremely rich in iodine
	3		Π	L	Kombu seaweed	Extremely rich in iodine
	0				lingzhi, Ganoderma lingzhi, reishi	Touted as an anti-allergic "medicinal mushroom". Due to lack of own experience, no reliable classification yet.
	2		Π		morel	
	2		Π		mushrooms, different types	
	3			L	Nori seaweed	Extremely rich in iodine
	2				porcino mushroom (Boletus edulis)	
	3		Η	L	red algae, algae	Extremely rich in iodine
	0				reishi, lingzhi, Ganoderma lingzhi	Touted as an anti-allergic "medicinal mushroom". Due to lack of own experience, no reliable classification yet.
	3			L	seaweed, seaweed	Extremely rich in iodine
	3		Η	L	seaweeds and seaweed derivatives	Extremely rich in iodine
	0				spirulina (Arthrospira)	
	1				tibicos, or water kefir	May be sufficiently compatible if without incompatible ingredients. Risk: contamination with unfavorable microorganisms.
	3		Π	L	Wakame seaweed	Extremely rich in iodine
	1		Α		white button mushroom	
_	0				yeast (fresh, dried, in all forms)	Well tolerated when produced under perfect hygienic conditions. Exceptions: baked goods with a long dough fermentation time may be intolerated. High content of glutamic acid (see glutamate).
eet	ene	ers	$\square$			
	0		Η		agave nectar, agave syrup	High fructose content
	1		$\square$		artificial sweeteners	Sucralose is tolerated.
	0		Η	$\vdash$	birch sugar, xylitol, xylite, E967	
_	0		$\vdash$		caramel (browned sugar)	

Own assessment	Histamine	tich in Histamine	)ther Amines	Liberator	llocker	Designation EN	Remarks EN
	0	щ			щ	dextrose	Glucose syrup may contain a lot of fructose, pure glucose free from fructose.
	0		F			E420, sorbitol, glucitol	
	0					E953, isomalt	Difficult to digest. Excessive consumption can have a laxative effect.
	0					E967, xylitol, xylite, birch sugar	
	2					extract of malt	
	0					fructose (fruit sugar)	Too much will cause indigestion.
	0					glucose	Glucose syrup may contain a lot of fructose, pure glucose free from fructose.
	0					honey	To be debated. Uneven. Naturally contains benzoic acid.
	0	Γ	Γ	Γ		inverted sugar syrup, invert sugar syrup	
	0					isomalt, E953	Difficult to digest. Excessive consumption can have a laxative effect.
	0					lactose (milk sugar)	
	2			?		liquorice root	
	2					malt extract	
Ī	0					maltose, malt sugar (pure)	
	0					maple syrup	
	?			?		palm sugar	
	0					sorbitol, glucitol, E420	
	0					stevia (stevia leaves, liquid, powder)	
	0					sucrose	Nevertheless, should be used sparingly, not as a main nutrient.
	0					sugar (beet sugar, cane sugar)	Nevertheless, should be used sparingly, not as a main nutrient.
	0	Γ	Γ	Γ		xylitol, xylite, birch sugar, E967	
ces	s, se	eas	on	ing	g, a	iroma	
	?					anise, aniseed	
	0					bay laurel, laurel	Small amounts are well tolerated, for larger quantities lac of experience.
	0					black caraway (Nigella sativa)	antiallergic
	2					bouillon (because of yeast extract / meat extract / glutamate)	Almost always with incompatible ingredients (glutamate yeast extract, spice/aroma/flavour/seasoning/condiment/wort (in the meaning of protein hydrolysates), meat extracts, incompatible vegetables)
Ī	0					caraway (Carum carvi)	Positive effect: digestive for heavy meals. Caution: Not to confused with cumin (intolerated)!
	0					cardamom	À utiliser avec parcimonie! Des différentes éspèces et variétés sont appelées cardamome et sont utilisés comme épice. Difficile de savoir si tous sont également toléré.
	0	F	F	?		cilantro	Only small amounts are well tolerated.
	0					cinnamon	
	0					cloves	Small amounts are well tolerated, for larger quantities lac of experience.

		e					
Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	0			?		coriander	Only small amounts are well tolerated.
	2			L		cumin (Cuminum cyminum)	
	2			L		cummin	
	2					curry	
	0	?				distilled white vinegar	Low histamine, but not free from histamine. Use sparingly. Check for intolerated additives.
	0					fennel flower (Nigella sativa)	antiallergic
	1					ginger	Small amounts are well tolerated.
	2			L		Jeera	
	0					juniper berries	
	0					laurel, bay laurel, sweet bay, bay tree, true laurel,	Small amounts are well tolerated, for larger quantities lack
						Grecian laurel	of experience.
	2	?	?	?		meat extract	
	0					meridian fennel (Carum carvi)	Positive effect: digestive for heavy meals. Caution: Not to be confused with cumin (intolerated)!
	2			L		mustard, mustard seeds, mustardseed powder	Seeds of the mustard plant and products thereof
	0					Nigella sativa seed	antiallergic
	1					nutmeg	Small amounts are well tolerated.
	0					nutmeg flower (Nigella sativa)	antiallergic
	2					paprika, hot	Irritating the intestine
	0					paprika, sweet	
	2					pepper, black	Small amounts are tolerated.
	2					pepper, white	Small amounts are tolerated.
	0					Persian cumin (Carum carvi)	Positive effect: digestive for heavy meals. Caution: Not to be confused with cumin (intolerated)!
	1					poppy seeds	Small amounts are well tolerated.
	3	Η	?			red wine vinegar	
	0					Rhus coriaria, Sicilian sumac, tanner's sumach, elm- leaved sumach	Do not confuse with North American spice sumac (fragrant sumac, Rhus aromatica) or other (sometimes poisonous or highly allergenic) sumac plants!
	0					Roman coriander (Nigella sativa)	antiallergic
	2					seasoning made of hydrolysated proteins	Derived from vegetal protein hydrolysate, aroma reminiscent of meat broth. Contains glutamate, histamine and other amines.
	3					soy sauce	
	0	?				spirit vinegar	Low histamine, but not free from histamine. Use sparingly. Check for intolerated additives.
	?					star anise, star anise seed, Chinese star anise, badiam	
	0					sumac, sumach, Sicilian sumac, Rhus coraria	Do not confuse with North American spice sumac (fragrant sumac, Rhus aromatica) or other (sometimes poisonous or highly allergenic) sumac plants!
	0					thyme, common thyme, German thyme, garden thyme, (Thymus vulgaris)	
	0					turmeric (Curcuma longa)	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	1	?		?		vanilla extract	From fermented fruits, alcoholic.
	1	?		?		vanilla, vanilla pod, vanilla powder, vanilla sugar	Tolerated in small quantities. Fermentation! Possibly traces of sulfite? (See also additives > vanillin)
	1	Н	?			vinegar: apple vinegar	Check for additives.
	3	Н	?			vinegar: balsamic vinegar	
	0	?				vinegar: spirit vinegar, distilled white vinegar	Low histamine, but not free from histamine. Use sparingly. Check for intolerated additives.
	0	?				white vinegar, spirit vinegar	Low histamine, but not free from histamine. Use sparingly. Check for intolerated additives.
		Η	?			white wine vinegar	
	2			L		yeast extract	Chemical conversion to glutamate.
ver	age	s					
Wat	ter						
	1			?		healing spring water with lots of sulfur, fluorine,	
						iodine, and carbonic acid	
	0					mineral water, still	
	0					tap water	
Alco	_	lic	be		-		
	3					alcohol, pure (ethanol)	
						alcoholic beverages	
						beer	
						brandy	
	3	Η	Α			champagne	
	3					ethanol	
	2				_	liquor, clear (colourless)	
	3	Η	Α	L	В	liquor, schnapps, spirits, cloudy (not colourless)	
	2	Η	Α	L	В	rum	
	2	?	?	L	В	schnapps, clear (colourless)	
	3					sparkling wine	
	2	?	?	L	В	spirits, clear (colourless)	
	3	Η	Α	L	В	wine	
	1		?	L	В	wine, histamine free (<0.1 mg/l)	Still contains alcohol and sulfite, like any wine. For cooking it is well tolerated after the alcohol has evaporated.
					_	wine: red wine	
	2	Η	Α	L	В	wine: Schilcherwein	
	2	Η	A	L	В	wine: white wine	
Теа	, he	rba	al i	nfı	ısi	ons	
	0					anise tea, aniseed tea	
	0					caraway tea, meridian fennel tea, Persian cumin tea (Carum carvi)	
	0					chamomile tea	
	0					fennel tea	
	1	H			в	green tea	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator Blocker	Designation EN	Remarks EN
	1			?	herbal teas with medicinal herbs (especially complex	Incompatible ingredient not yet identified
					mixtures with numerous ingredients)	
	0				lime blossom tea, limeflower, flowers of large-leaved	
				_	limetree (Tilia platyphyllos)	
_	1			E	mate tea (llex paraguariensis)	
	0	Ц	$\rightarrow$	_	peppermint tea	Quality of a labelia formalized marking here have
	0				rooibos tea	Caution: Check the list of ingredients. Tea blends (mixture of Rooibos & incompatible ingredients (e.g. orange zest) ar often sold as "Rooibos" as well.
	0				sage tea	
	1		?	_	stinging nettle herbal tea (Urtica dioica)	
	2	Н		E	tea, black tea	
	0				verbena herbal tea	Has a calming effect on intestine and nervous system.
rui	t ju	lice	es, n	ect	ars	
	0				cranberry nectar	
	3			L	lemon juice, lemon juice concentrate	
	2			L	orange juice	
'eg	eta	ble	jui	ces		
	2			L	tomato juice	
aff	ein	le d	rin	ks		
	2				Coca-Cola	See also caffeine, carbonated, flavourings
	1				coffee	Caffeine stimulates nerves and bowel, which may be mas cell activating.
	2				Coke	See also caffeine, carbonated, flavourings
					Cola-drinks	
	2				Cold utiliks	See also caffeine, carbonated, flavourings
	2 2			? E	energy drinks	See also caffeine, carbonated, flavourings Theobromine inhibits the DAO enzyme.
				? E		
ſill	<b>2</b> 1	ıbs	titu		energy drinks	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates
ſill	<b>2</b> 1	ubs			energy drinks espresso oat drink, oat milk	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically.
ſill	2 1 ( st 1 1	ubs			energy drinks espresso oat drink, oat milk rice milk, rice drink	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented
/1111	2 1 x su 1	ıbs			energy drinks espresso oat drink, oat milk	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 1 1 1 2			tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 x st 1 1 2 dri 2		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 x su 1 1 2 dri		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks cocoa drinks	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 x st 1 1 2 dri 2		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 3 4 1 2 dri 2 2		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks cocoa drinks	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 1 1 1 2 dri 2 2 0		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks cocoa drinks elderflower cordial	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented
	2 1 3 4 1 2 dri 2 2 0 2		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks cocoa drinks elderflower cordial hot chocolate	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented enzymatically.
	2 1 3 1 1 2 dri 2 2 0 2 1		titu	tes	energy drinks espresso oat drink, oat milk rice milk, rice drink soy milk, soy drink chocolate drinks cocoa drinks elderflower cordial hot chocolate lemonade	Theobromine inhibits the DAO enzyme. Better tolerated than coffee, but caffeine still stimulates nerves and bowel, which may be mast cell activating. Often slightly histamine containing as fermented enzymatically. Often slightly histamine containing as fermented enzymatically.

Own assessment	Hist	Rich in Histamine	Other Amines	-	Blocker	Designation EN	Remarks EN
	2			L		2-hydroxybiphenyl, E231	
	1			L		acacia gum, gum arabic, E414	
	0					acetate of lime, calcium acetate, E262	
	0					acetic acid, E260	
	2			L		Acid Red 14, E122	
	1			?		agar, agar-agar, E406	
	1					alginic acid, algin, alginate, E400	Often well tolerated.
	2			L		Allura Red, Food Red 17, C.I. 16035, FD&C Red 40, E129, 2-Naphthalenesulfonic acid	Banned in several countries
	0					alpha-tocopherol, vitamin E, E307	
	?					aluminium, aluminum, E173	It is unhealthy for other reasons.
	2			L		amaranth, E123	This refers to the azo dye amaranth, an artificial food coloring. Not to be confused with the pseudo grain amaranth from the plant genus Amaranthus.
	0					ammonia caramel, E150c	Possibly not as good tolerated as E150?
	1					ammonium alginate, E403	Often well tolerated.
	0					ammonium carbonate, baker's ammonia, E503	
	1			?		ammonium citrate, triammonium citrate, E380	
	2			L		annatto, bixin, norbixin, E160b	
	?					apocarotenal, E160e	
	0				В	ascorbic acid, E300	Lowers histamine levels, but is also a weak DAO inhibitor. Good for those with MCAS, bad for those with HIT?
	0					ascorbyl palmitate, E304	
	2			L		Azorubin S, E12, Brillantcarmoisin O, E122	
	2			L		azorubine, E122	
	0					baking soda, bicarbonate of soda, sodium hydrogen	
						carbonate, sodium bicarbonate	
	0					beeswax, E901	
	2			L		benzoates, E210-213	
	2	$\square$		L		benzoic acid, E210	
	0			_		betanin, Beetroot Red, E162	
	2			L		bixin, norbixin, E160b	
	?					borax, sodium borate, sodium tetraborate, disodium tetraborate, E285	Very poisonus. Only approved in caviar.
	?					boric acid, E284	Very toxic, substance of very high concern, toxic for reproduction!
	3			L		Brilliant Black BN, Brilliant Black PN, Brilliant Black A, Black PN, Food Black 1, Naphthol Black, E151, C.I. Food Black 1, C.I. 28440	
	?			?		Brilliant Blue FCF, E133, FD&C Blue No.1, Acid Blue 9, D&C Blue No. 4, Alzen Food Blue No. 1, Atracid Blue FG, Erioglaucine, Eriosky blue, Patent Blue AR, Xylene Blue VSG, C.I. 42090	

Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	2			L		Brown FK, Kipper Brown, Chocolate Brown FK, E154,	
					_	C.I. Food Brown 1	
	2			L		Brown HT, Chocolate Brown HT, Food Brown 3, E155, C.I. 20285	
$\vdash$	2	$\vdash$	$\square$	L	_	butylated hydroxyanisole, E320	
$\vdash$	2	Н	$\square$	L	_	butylated hydroxytoluene, BHT,	
	2			비		dibutylhydroxytoluene, E321	
$\vdash$	2		$\square$	L		C.I. 14720, E122	
	2	Η	$\square$	L		C.I. 16255, E124	
	3	Η	$\square$	L	-	C.I. 47005, E104	
	2	Η	$\square$	– L		C.I. Acid Red 18, E124	
	0	Н	$\square$	_	-	calcium acetate, acetate of lime, calcium ethanoate,	
						calcium diacetate, E262	
	1					calcium alginate, E404	Often well tolerated.
$\vdash$	0	Η	$\square$			calcium ascorbate, calcium diascorbate	
	2		$\square$	L		calcium benzoate, E213	
	2		$\square$	L		calcium bisulfite, E227	
	0	Η	$\square$	L		calcium carbonate, limestone, E170	In too high a dosage, calcium is mast cell activating.
$\vdash$	1	Н	$\square$	?	-	calcium citrate, E333	Often well tolerated. But see under calcium and citric acid!
	2			L		calcium diglutamate, E623	
	0					calcium lactate, E327	
	0					calcium L-ascorbate	
	0					calcium L-ascorbate	
	2			?		calcium polyphosphate, E452	
	?					calcium propanoate, calcium propionate, E282	
	2			L		calcium sorbate, E203	
	2			L		calcium sulfite, E226	
	?					canthaxanthin, cantaxanthin, cantaxanthine,	
						canthaxanthine, E161g	
	0					capsanthin, E160c	
	0					caramel color, caramel coloring, E150	
	1			L		carbonated drinks, carbonic acid	Only short time effects. Symptoms quickly disappear
	?					carboxymethyl cellulose, CMC,	
						carboxymethylcellulose, carmellose, cellulose gum,	
				_	_	E466	
	2	Ц		L		carmine, E120	
	2	Ц		L		carmoisine, E122, Food Red 3, E122	
	2		?	?		carob, carob powder, carob pod meal	Carob ist the dried (and sometimes roasted) pod, and not the seeds.
	2			L		carobin, carob gum, carob bean gum, E410	Thickening agent and gelling agent, extracted from the seeds of the carob tree.
	0	Ц		L		carotene, beta-carotene, β-carotene, E160a	
	2			L		carrageenan, processed seaweed, E407, E407a	

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Own assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN caustic caramel, E150a caustic sulphite caramel, E150b cellulose ethyl ether, ethyl cellulose, ethylcellulose,	Remarks EN
	0					caustic caramel, E150a	
	0					caustic sulphite caramel, E150b	Possibly not as good tolerated as E150?
	0					cellulose ethyl ether, ethyl cellulose, ethylcellulose, E462	
	0					cellulose methyl ether, methyl cellulose,	May produce laxative effects in large quantities.
						methylcellulose, methylated cellulose, E461	
	0					cellulose, E460	
	0					charcoal, E153	
	0					chlorophyll, E140	
	1					citric acid, E330	To be debated. Made from mold, not from lemons.
	2			L		cochineal red A, E124	
	2			L		cochineal, E120	
	0	Η				copper complexes of chlorophylls and chlorophyllins,	
						E141	
	0					cream of tartar, E336	
	2			L		crimson lake, E120	
	1			L		crystal gum, gum karaya, karaya gum, E416	
	0	Η				curcumin, E100	
	0	Η				delta-tocopherol, vitamin E, E309	
	1	$\square$		?		dicalcium phosphate, dicalcium hydrogen	
						orthophosphate, E340	
	?					dimethicone, dimethylpolysiloxane,	
						polydimethylsiloxane, PDMS, E900	
	?					dimethyl dicarbonate, DMDC, methoxycarbonyl	
						methyl carbonate, dimethyl pyrocarbonate, Velcorin, E242	
	1			?		dipotassium phosphate, dipotassium hydrogen	
						orthophosphate, E340	
	0					D-isoascorbate, sodium erythorbate, erythorbic acid	
						sodium salt, E316, erythorbic acid sodium salt, sodium	
						erythorbate, D-isoascorbate, E316	
	0					E100, curcumin	
	1			L		E101a, riboflavin-5'-phosphate	
	3			L		E102, tartrazine	
	3			L		E104, quinoline yellow	
	3			L		E110, sunset yellow FCF	
	0					E1103, invertase, saccharase, glucosucrase, beta-h-	
						fructosidase, beta-fructosidase, invertin, sucrase	
	?					E1105, lysozymes	
	2			L		E120, carmine, cochineal	
	?					E1200, polydextrose	May produce laxative effects in large quantities.
	1			?		E1201, polyvinylpyrrolidone, PVP, polyvidone, povidone	
	1			?		E1202, polyvinylpolypyrrolidone	
					<u> </u>		I

UWII assessment	Histamine	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN E122, azorubine, carmoisine E123, amaranth	Remarks EN
	2			L		E122, azorubine, carmoisine	
	2			L		E123, amaranth	This refers to the azo dye amaranth, an artificial food coloring. Not to be confused with the pseudo grain amaranth from the plant genus Amaranthus.
	2			L		E124, ponceau 4R, cochineal red A	
Ī	3			L	?	E127, erythrosine	
	2			L		E129, Allura Red, Food Red 17, C.I. 16035, FD&C Red 40, 2-Naphthalenesulfonic acid	Banned in several countries
	2			L		E131, Patent blue V	
Τ	2			L		E132, indigo carmine, indigotine	
	?			?		E133, Brilliant Blue FCF, FD&C Blue No.1, Acid Blue 9, D&C Blue No. 4, Alzen Food Blue No. 1, Atracid Blue FG, Erioglaucine, Eriosky blue, Patent Blue AR, Xylene Blue VSG, C.I. 42090	
	0					E140, chlorophyll	
	0					E141, copper complexes of chlorophylls and	
	?			?		chlorophyllins E142, Green S, Food Green S, FD&C Green 4, Acid green 50, Lissamine Green B, Wool Green S, C.I. 44090	
	0					E150, plain caramel, caustic caramel, caramel coloring	
	0					E150b, sulphite-caramel	Possibly not as good tolerated as E150?
	0					E150c, ammonia caramel	Possibly not as good tolerated as E150?
	0					E150d, sulphite ammonia caramel	Possibly not as good tolerated as E150?
	3			L		E151, Brilliant Black BN, Brilliant Black PN, Brilliant Black A, Black PN, Food Black 1, Naphthol Black, C.I. Food Black 1, C.I. 28440	
	0					E153, charcoal	
	2			L		E154, Brown FK, Kipper Brown, Chocolate Brown FK, C.I. Food Brown 1	
	2			L		E155, Brown HT, Chocolate Brown HT, Food Brown 3, C.I. 20285	
	0	$\square$	$\dashv$	L		E160a, carotene, beta-carotene, β-carotene	
_	2	$\vdash$	-	L	_	E160b, bixin, norbixin, annatto	
_	0	$\vdash$	-	_	_	E160c, capsanthin	
$\downarrow$	? ?	$\vdash$	$\neg$	_		E160d, lycopene	
+		$\vdash$	-	_	_	E160e, apocarotenal , C.I. Food Orange 6 E160f, Food orange 7	
$\downarrow$	? ?	$\vdash$	$\neg$	_		E1601, Food orange 7 E161b, lutein, luteine	
	?			_		E161g, canthaxanthin, cantaxanthin, cantaxanthine, canthaxanthine, Lucantin red (BASF), Lucantin Red CWD (BASF), Carophyll Red (DSM), Roxanthin Red 10 (Adisseo), L-Orange 7g, C.I. Food Orange 8	
	0			_		E162, betanin, Beetroot Red	

sment	e	Histamine	les				
Own assessment	istamine	ch in His	Other Amines	erator	ocker		
§ 0	늰	Rich	G	Lib	Blc	Designation EN	Remarks EN
	0					E163, anthocyanins, anthocyans	
	0			L		E170, calcium carbonate, limestone, calcite, aragonite, chalk	In too high a dosage, calcium is mast cell activating.
	0			?		E171, titanium dioxide, titanium(IV) oxide, titania, oxide of titanium, titanium white, Pigment White 6 (PW6), C.I. 77891	Only individuals with Multiple Chemical Sensitivity previously reported to us this substance as incompatible.
	0					E172, iron oxides	
	?					E173, aluminium, aluminum	It is unhealthy for other reasons.
	?					E174, silver	
	0					E175, gold	
	2			L		E180, Lithol Rubine BK, Pigment Rubine, Carmine 6B, Brilliant Carmine 6B, Permanent Rubin L6B, Litholrubine, Latolrubine, C.I. Pigment Red 57, C.I. Pigment Red 57:1, D&C Red No. 7, or C.I. 15850:1	Only permitted in cheese rind
	2		Π	L		E200, sorbic acid	
	2			L		E202, potassium sorbate	
	2			L		E203, calcium sorbate	
	2			L		E210, benzoic acid	
	2		П	L		E210-213, benzoic acid and salts = benzoates	
	2			L		E211, sodium benzoate	
	2		Π	L		E212, potassium benzoate	
	2		Π	L		E213, calcium benzoate	
	2			L		E214, E215, ethylparaben, ethyl para-hydroxybenzoate	
	2			L		E218, E219, methylparaben, methyl paraben	
	2			L		E220 - E228, sulfites, sulphites	
	2			L		E220, sulfur dioxide, sulphur dioxide	
	2			L		E221, sodium sulfite, sodium sulphite	
	2			L		E222, sodium hydrogen sulphite, sodium bisulphite	
$\neg$	2	Η	Η	L		E223, sodium metabisulfite	
	2	Η	Η	L		E224, potassium metabisulfite	
	2	Η	Η	L		E225, potassium sulfite	
	2	Η	Η	L		E226, calcium sulfite	
	2	Η	Η	L		E227, calcium bisulfite	
-	2	Н	Η	L		E228, potassium hydrogen sulfite	
	2	$\vdash$	$\vdash$	L		E231, orthophenyl phenol	
	2	Η	$\vdash$			E232, sodium orthophenyl phenol	
	?	Η	Η			E234, nisin	
	?	Η	Η			E235, natamycin, pimaricin, natacyn	
	2	$\vdash$	$\vdash$	L	$\square$	E239, hexamethylenetetramine, hexamine,	
						methenamine, urotropine, 1,3,5,7-	
						tetraazaadamantane, formin, aminoform	

Own assessment		Ĕ.					
OWD	Histamine	Rich in Histamine	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	?					E242, dimethyl dicarbonate, DMDC, methoxycarbonyl	
						methyl carbonate, dimethyl pyrocarbonate, velcorin	
	?					E249, potassium nitrite	
	0	1				E250, sodium nitrite	
T	?	1				E251, sodium nitrate	
╡	?					E252, potassium nitrate, saltpetre, nitrate of potash	
	0	1				E260, acetic acid	
	0	1				E261, potassium acetate	
	0	+				E262, sodium acetate, sodium ethanoate	
	0	+				E263, calcium acetate, acetate of lime, calcium	
						ethanoate, calcium diacetate	
	0					E270, lactic acid, milk acid, 2-hydroxypropanoic acid	Chemically pure lactic acid is not a problem. Only microbial lactic fermentation may cause problems.
	?					E280, propionic acid, propanoic acid	The degradation of propionic acid consumes vitamin B12, which may reinforce B12 deficiency.
	?					E281, sodium propanoate, sodium propionate	
	?					E282, calcium propanoate, calcium propionate	
	?					E283, potassium propanoate, potassium propionate	
	?					E284, boric acid	Very toxic, substance of very high concern, toxic for reproduction!
	?					E285, borax, sodium borate, sodium tetraborate, disodium tetraborate	Very poisonus. Only approved in caviar.
	0					E290, carbon dioxide, carbonic acid gas, carbonic anhydride, carbonic oxide, carbon oxide, carbon(IV) oxide	Causes only short-time symptoms and only in big quantities (e.g. carbonated soft drinks and soda water).
	0					E296, malic acid, hydroxybutanedioic acid	
	?					E297, fumaric acid, trans-butenedioic acid, allomaleic acid, boletic acid, donitic acid, lichenic acid	
	0				В	E300, ascorbic acid, vitamin C	Lowers histamine levels, but is also a weak DAO inhibitor. Good for those with MCAS, bad for those with HIT?
	0					E301, sodium ascorbate, sodascorbate	
	0					E302, calcium ascorbate, calcium diascorbate	
	0					E304, ascorbyl palmitate	
	0	1				E306, tocopherol, vitamin E	
	0					E307, alpha-tocopherol, α-tocopherol, vitamin E	
	0	1				E308, gamma-tocopherol, γ-tocopherol, vitamin E	
-	0					E309, delta-tocopherol, vitamin E	
	2			L		E310, propyl gallate, propyl 3,4,5-trihydroxybenzoate, gallic acid propyl ester, n-propyl gallate	

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Own assessment	Histamine	Rich in Histamine	<b>Other Amines</b>	Liberator	Blocker	Designation EN	Remarks EN
	2			L		E311, octyl gallate	
	2			L		E312, dodecyl gallate, lauryl gallate	
	0	Π				E315, erythorbic acid, isoascorbic acid, D-	
						araboascorbic acid	
	0	П				E316, sodium erythorbate, D-isoascorbate, erythorbic	
						acid sodium salt	
	?					E319, tert-Butylhydroquinone, TBHQ	
	2			L		E320, butylated hydroxyanisole	
	2			L		E321, butylated hydroxytoluene, BHT,	
						dibutylhydroxytoluene	
	0					E322, lecithins, lecithin	Mostly soya lecithin
	0					E325, sodium lactate	
	0					E326, potassium lactate	
	0	$\square$				E327, calcium lactate	
	1					E330, citric acid	To be debated. Made from mold, not from lemons.
	1	П		?		E331, trisodium citrate, sodium citrate, citric acid	Often well tolerated.
						trisodium salt	
	1			?		E332, potassium citrate, tripotassium citrate	Often well tolerated.
	1			?		E333, calcium citrate, tricalcium dicitrate	Often well tolerated. But see under calcium and citric acid!
	0					E334, tartaric acid, 2,3-dihydroxybutanedioic acid, 2,3- dihydroxysuccinic acid, threaric acid, racemic acid, uvic acid, paratartaric acid	
	0					E335, sodium tartrate, sal tartar, disodium tartrate, bisodium tartrate, monosodium tartrate, sodium bitartrate	See cream of tartar
	0					E336, cream of tartar, potassium bitartrate	
	1			?		E340, calcium phosphates: monocalcium phosphate (KH2PO4, calcium dihydrogen phosphate), dicalcium phosphate (K2HPO4, dicalcium hydrogen orthophosphate, calcium phosphate dibasic), tricalcium phosphate (K3PO4)	
	1			?		E340, potassium phosphates: monopotassium phosphate (KH2PO4, potassium dihydrogen phosphate), dipotassium phosphate (K2HPO4, dipotassium hydrogen orthophosphate, potassium phosphate dibasic), tripotassium phosphate (K3PO4)	
	1			?		E380, ammonium citrate, triammonium citrate	
	1					E400, alginic acid, algin, alginate	Often well tolerated.
	1	Н				E401, sodium alginate	Often well tolerated.
	1	Π				E402, potassium alginate	Often well tolerated.
	1	Π				E403, ammonium alginate	Often well tolerated.
	1	Н				E404, calcium alginate	Often well tolerated.
	1	Н				E405, propylene glycolic alginate	Often well tolerated.
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Own assessment	Histamine	<b>Rich in Histamine</b>	<b>Other Amines</b>	Liberator	Blocker	Designation EN	Remarks EN
	1			?		E406, agar, agar-agar	
$\square$	2			L		E407, E407a, carrageenan, processed seaweed	
	2			L		E410, locust bean gum, LBG, carobin, carob bean gum	Thickening agent and gelling agent, extracted from the seeds of the carob tree.
$\square$	1			L		E412, guar gum, guaran	
$\square$	2			L		E413, tragacanth	
	1			L		E414, gum arabic, acacia gum, chaar gund, char	
						goond, meska	
	0					E415, xanthan gum	
	1			L		E416, gum karaya, karaya gum, crystal gum	
	0					E421, mannitol, mannite, manna sugar	
	0	П				E422, glycerol, glycerine, glycerin, propanetriol,	
						propane-1,2,3-triol, 1,2,3-trihydroxypropane	
$\square$	0					E440, pectin	
	1	?		?		E441, gelatin	Controversial, may also be tolerated.
	2			?		E452, polyphosphates: sodium-, potassium-, calcium-	
						and sodium-calcium-polyphosphate	
	0					E460, cellulose	
	0					E461, methyl cellulose, methylcellulose, cellulose methyl ether, methylated cellulose	May produce laxative effects in large quantities.
	0	П				E462, ethyl cellulose, ethylcellulose, cellulose ethyl	
						ether, ethylated cellulose	
	0					E463, hydroxypropylcellulose	
	0					E464, hypromellose, hydroxypropyl methylcellulose, hydroxypropyl methyl cellulose, HPMC	
	0					E465, ethyl methyl cellulose, methyl ethyl cellulose, ethyl methyl ether of cellulose	
	?					E466, carboxymethyl cellulose, CMC, carboxymethylcellulose, carmellose, cellulose gum	
	0					E500i, sodium carbonate, washing soda, soda ash, soda crystals, Na2CO3	
	0					E500ii, sodium hydrogen carbonate, sodium bicarbonate, baking soda, bicarbonate of soda, NaHCO3	
	0					E501, potassium carbonate, carbonate of potash, dipotassium carbonate, sub-carbonate of potash, Pearl ash, potash, salt of tartar, salt of wormwood	
	0					E503, ammonium carbonate, baker's ammonia, salt of hartshorn	
$\square$	0	Η	$\square$			E504, magnesium carbonate	
	0	Η	Η	F		E507, hydrochloric acid	
$\mid \mid$	0	Η	Η			E579, iron(II) gluconate, ferrous gluconate	
	-						

	2		_	E	Block	Designation EN	Remarks EN
	2			L		E620, glutamic acid, (glutamate, flavour enhancer)	
				L		E620-625, glutamates, glutamic acid and its salts	
	2			L		E621, monosodium glutamate, glutamic acid	
						monosodium salt	
	2			L		E622, potassium glutamate, glutamic acid potassium	
						salt	
	2			L		E623, calcium diglutamate	
	2			L		E624, monoammonium glutamate, glutamic acid ammonium salt	
	2	$\neg$		L		E625, magnesium diglutamate, glutamic acid	
	2			-		magnesium salt	
	0	+				E626, guanosine monophosphate, 5'-guanidylic acid,	
						guanylic acid	
	0					E650, zinc acetate, dicarbomethoxyzinc, zinc	
						diacetate	
L .	?					E900, polydimethylsiloxane, PDMS, dimethicone,	
						dimethylpolysiloxane	
	0					E901, beeswax, bees wax, cera alba, cera flava	
	0					E955, sucralose	
	0					E960, steviol glycosides	
	3			L	?	erythrosine, E127	
	0					ethyl cellulose, ethylcellulose, ethylated cellulose,	
		_				cellulose ethyl ether, E462	
	0					ethyl methyl cellulose, E465	
	2			L		ethylparaben, ethyl para-hydroxybenzoate, E214, E215	
	0					ferrous gluconate, iron(II) gluconate, E579	
	1			L		fizzy drinks	Only short time effects. Symptoms quickly disappear
	1			L		flavin mononucleotide, E101a	
	2	$\square$		L		flavour enhancers, glutamates, E620-625	
	1		$\square$			flavourings, flavorings	This can be anything. Mostly not well tolerated.
	?	$\square$				Food orange 7, E160f	
	3			L		Food Yellow 13, E104	
	?	$\square$				fumaric acid, trans-butenedioic acid, E297	
	0					gamma-tocopherol, vitamin E, E308	
	1	?		?		gelatin, E441	Controversial, may also be tolerated.
	2			L		glutamates, glutamic acid and its salts, E620-625	
	2			L		glutamic acid magnesium salt, E625	
	2			L		glutamic acid monosodium salt, E621	
	2			L		glutamic acid, (glutamate, flavour enhancer), E620	

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Own assessment	Histamine	Rich in Histamine	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	1			?		gluten	Well tolerated in many cases. Flatulence in some cases.
	0					glycerol, glycerine, glycerin, E422	
	0					gold, E175	
	?			?		Green S, E142, Food Green S, FD&C Green 4, Acid green 50, Lissamine Green B, Wool Green S, C.I. 44090	
	0					guanosine monophosphate, 5'-guanidylic acid, guanylic acid, E626	
	1			L		guar gum, guaran, E412	
$\square$	1			L		gum arabic, acacia gum, E414	
$\square$	1			L		gum karaya, karaya gum, crystal gum, E416	
	0					hemicalcium ascorbate	
	0					hemicalcium ascorbate, E302	
	2			L		hexamethylenetetramine, hexamine, methenamine, urotropine, 1,3,5,7- tetraazaadamantane, formin, aminoform	
	0					hydrochloric acid, E507	
	0					hydroxypropylcellulose, E463	
	0					hypromellose, hydroxypropyl methylcellulose, hydroxypropyl methyl cellulose, HPMC, E464	
	2			L		indigo carmine, indigotine, E132	
	0					invertase, E1103	
	0					iron oxides, E172	
	0					iron(II) gluconate, ferrous gluconate, E579	
	1			L		karaya gum, gum karaya, crystal gum, E416	
	?					Kolliphor® EL, Cremophor EL, Macrogolglycerol ricinoleate, Macrogolglyceroli ricinoleas, Polyoxyl 35 Castor Oil	May cause allergic reactions with severe anaphylaxis.
	0					lactic acid, milk acid, 2-hydroxypropanoic acid, E270	Chemically pure lactic acid is not a problem. Only microbial lactic fermentation may cause problems.
$\square$	0	Π				lecithins, lecithin, E322	Mostly soya lecithin
$\square$	2			L		Lithol Rubine BK, E180	Only permitted in cheese rind
	2			L		locust bean gum, LBG, E410	Thickening agent and gelling agent, extracted from the seeds of the carob tree.
	?					lutein, luteine, E161b	
	?					lycopene, E160d	
	?					lysozymes, E1105	
	0					magnesium carbonate, E504	
	2			L		magnesium diglutamate, magnesium glutamate, E625	
$\square$	0					malic acid, hydroxybutanedioic acid, E296	
	0					mannitol, mannite, E421	
	1			?		menthol	
				?			

essment	ine	Histamine	iines				
Own assessment	Histamine	Rich in H	Other Arr	Liberator	Blocker	Designation EN	Remarks EN
	0					methyl cellulose, methylcellulose, methylated	May produce laxative effects in large quantities.
						cellulose, cellulose methyl ether, E461	
	0					methyl ethyl cellulose, ethyl methyl cellulose, E465	
	2			L		methylparaben, methyl paraben, E218, E219	
	0					modified starch, starch derivatives	
	2			L		monoammonium glutamate, ammonium glutamate,	
						glutamic acid ammonium salt, E624	
	1			?		monocalcium phosphate, E340	
	1			?		monopotassium phosphate, E340	
	0					monosodium ascorbate	
	0					monosodium ascorbate, E301	
	0					monosodium ascorbate, sodium ascorbate, sodascorbate, E301	
	2			L		monosodium glutamate, E621	
	?					natamycine, natacyn, pimaricin, E235	
	?					nisin, E234	
	2			L		norbixin, bixin, annatto, E160b	
	2			L		octyl gallate, E311	
	3			L		orange yellow S, E110	
	2			L		orthophenyl phenol, E231	
	2			L		parabens = PHB-ester, E214-219, para-hyrdoxy- benzoic acid = PHB	
	2			L		Patent blue V, E131	
	0		$\square$			pectin, E440	
	?		$\square$			pimaricin, natamycine, E235	
	0					plain caramel, E150a	
	?					polydextrose, E1200	May produce laxative effects in large quantities.
	?		$\square$			polydimethylsiloxane, PDMS, dimethicone,	
						dimethylpolysiloxane, E900	
	1			?		polyvinylpolypyrrolidone, E1202	
	1			?		polyvinylpyrrolidone, PVP, polyvidone, povidone,	
						E1201	
	2			L		ponceau 4R, E124	
	0					potassium acetate, E261	
	1					potassium alginate, E402	Often well tolerated.
	2			L		potassium benzoate, E212	
	0					potassium bitartrate, E336	
	0					potassium carbonate, carbonate of potash, E501	
	1			?		potassium citrate, tripotassium citrate, E332	Often well tolerated.
	2			L		potassium glutamate, glutamic acid potassium salt, E622	
	2			L		potassium hydrogen sulfite, potassium bisulfite, E228	

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Own assessment Histamine	Rich in Histamine	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
0					potassium hydrogen tartrate, E336	
0					potassium lactate, E326	
2			L		potassium metabisulfite, E224	
?					potassium nitrite, E249	
2			?		potassium polyphosphate, E452	
?					potassium propanoate, potassium propionate, E283	
2		$\square$	L		potassium pyrosulfite, E224	
2		$\square$	L		potassium sorbate, E202	
2		П	L		potassium sulfite, E225	
1			?		povidone, polyvidone, polyvinylpyrrolidone, PVP, E1201	
?					propionic acid, propanoic acid, E280	The degradation of propionic acid consumes vitamin B12, which may reinforce B12 deficiency.
2			L		propyl gallate, E310	
1					propylene glycolic alginate, E405	Often well tolerated.
2					quinine (e.g. in Bitter Lemon or Tonic Water)	
3			L		quinoline yellow, E104	
2			L		Red 2G, acid red 1, azogeranine, azohpoloxine, E128	
1			L		riboflavin-5'-phosphate, E101a	
2			L		salicylic acid	Forbidden as food additive
?					silver, E174	
0					Soapwort extract (Saponaria) in Halva	
0					sodascorbate, sodium ascorbate, monosodium ascorbate, E301	
0					sodium acetate, E262	
1					sodium alginate, E401	Often well tolerated.
0					sodium ascorbate, sodascorbate	
2			L		sodium benzoate, E211	
2			L		sodium bisulphite, E222	
0					sodium carbonate, washing soda, soda ash, soda crystals, Na2CO3, E500i	
1		$\square$	?		sodium citrate, trisodium citrate, E331	Often well tolerated.
0					sodium erythorbate, D-isoascorbate, erythorbic acid sodium salt, E316	
0					sodium hydrogen carbonate, sodium bicarbonate, baking soda, bicarbonate of soda, E500ii	
2		$\square$	L		sodium hydrogen sulphite, E222	
0		П			sodium lactate, E325	
2		П	L		sodium metabisulfite, E223	
?		П			sodium nitrate, E251	
		П			sodium nitrite, E250	

Own assessment	ап	<b>Rich in Histamine</b>	Other Amines	Liberator	Blocker	Designation EN	Remarks EN
	2					sodium orthophenyl phenol, E232	
	2			?		sodium polyphosphate, E452	
	?					sodium propanoate, sodium propionate, E281	
	2			L		sodium pyrosulfite, E223	
	2			L		sodium sulfite, sodium sulphite, E221	
	0					sodium tartrate, sal tartar, disodium tartrate,	See cream of tartar
						bisodium tartrate, E335	
	2			?		sodium-calcium polyphosphate, E452	
	2			L		sorbates (salts of sorbic acid): potassium sorbate,	
	_			_		E202, calcium sorbate, E203	
	2			L		sorbic acid, E200	
	0					starch derivatives, modified starch	
	0					starch, amylum	
	0					steviol glycosides, E960	
	0				_	sucralose, E955	
_	2			L		sulfites, sulphites, E220 - E228	
_	2			L	_	sulfur dioxide, sulphur dioxide, E220	
	2			L		sulphan blue, E131	
	0					sulphite ammonia caramel, E150d	Possibly not as good tolerated as E150?
	3			L		sunset yellow FCF, E110	
	0					tartaric acid, uvic acid, E334	
	3			L		tartrazine, E102	
	?					tert-Butylhydroquinone, TBHQ, E319	
	0			?		titanium dioxide, titanium(IV) oxide, E171	Only individuals with Multiple Chemical Sensitivity previously reported to us this substance as incompatible
	0					tocopherol, vitamin E, E306	
	2			L		tragacanth, E413	
	1			?		triammonium citrate, ammonium citrate, E380	
	1			?		tricalcium phosphate, E340	
	1			?		tripotassium citrate, potassium citrate, E332	Often well tolerated.
	1			?		tripotassium phosphate, E340	
	1			?		trisodium citrate, sodium citrate, E331	Often well tolerated.
	0					vanillin (synthetic)	Slightly irritating. Use sparingly.
	0				В	vitamin C, E300	Lowers histamine levels, but is also a weak DAO inhibito Good for those with MCAS, bad for those with HIT?
	0					vitamin E, alpha-tocopherol, E307	
	0			1		vitamin E, delta-tocopherol, E309	
	0			1		vitamin E, gamma-tocopherol, E308	
	0			1		vitamin E, tocopherol, E306	
	0			1		xanthan gum, E415	
-	0					zinc acetate, E650	

0wn assessment	Histamine	Rich in Histamine	Other Amines	Liberator	Designation EN	Remarks EN
5	1	<u>R</u>	0		calcium	Vital in small quantities, mast cell activating in high dose
	1			1	calcium	Vital in small quantities, mast cell activating in high dose
	0			+	fir shoot, fir buds	E.g. sugared extract as spread
	2			L	folic acid, folate, vitamin B9	To be debated. Other name: pteroyl-L-glutamic acid (simil to glutamic acid / glutamate?)
	2		Α	L	guaraná (Paullinia cupana)	The fruit contains caffeine.
	3			L	iodine	
	2			L	iodized table salt	
	3			L	potassium iodate (e.g. as additive in iodized table salt)	
	3			L	potassium iodide (e.g. as additive in iodized table salt)	
	2				3 theobromine, xantheose	
	2			L	vitamin B9, folic acid, folate	To be debated. Other name: pteroyl-L-glutamic acid (simi to glutamic acid / glutamate?)
	2			T	3 xantheose, theobromine	
pa	rati	on	s, r	nix	ures	
	0				barley malt flour, malt flour	Malt (extract) is incompatible. However, baked goods with malt flour are often tolerated sufficiently well.
	2		Α	$\uparrow$	chocolate, brown / black	Tyramine, phenylethylamine
	1		?	╈	chocolate, white	Mostly well tolerated
	2				kimchi	Fermented. Mostly incompatible depending on ingredien microorganisms and manufacturing process.
	2			L	liquorice	
	0				malt flour, barley malt flour	Malt (extract) is incompatible. However, baked goods with malt flour are often tolerated sufficiently well.
	1				marchpane	Small amounts are well tolerated if without incompatible additives.
	1				marzipan	Small amounts are well tolerated if without incompatible additives.
		н		L	mustard	Preparation (mixture) of mustard seeds, vinegar, etc.
		H!		$\downarrow$	seitan	Depending on the freshness and ingredients used!
_	2	$\mid$		+	tofu	
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