

Why baby foods are different?



Commercial baby foods have been increasingly criticized over the last few years for a number of reasons such as their nutritional quality or the prevalence of contaminants. Unfortunately, consumers in general are not aware of their unique and exceptional characteristics.

Commercial Baby Foods:

Follow a much stricter **European legislation** in comparison to common foods ¹

Target **infants and toddlers** from 0.5 to 3 years

Are used as **complementary feeding**

Complementary feeding represents a "critical time window" in the development of a baby



Fast growth



Special nutrients requirements



Development of food preferences



High vulnerability to dangerous substances



Babies during their first two years of life

REACH



80% of their brain's final size



50% of their adult height

For that reason, they require the highest (safe) food intake per body weight



Making them vulnerable to food contaminants and toxins

Commercial baby foods in comparison to common foods are generally:

Safer, more **Nutritious** and more **Natural**

Safety



The EU has set much **stricter limits** in commercial baby foods in comparison to general foods



- Food contaminants residues
- Food contact materials
- Food additives



This is why **baby foods are safer than general (adult) foods!**

To protect babies against exposure to food contaminants, the EU limits the level of these substances in commercial baby foods ^{1,2}

6 types of contaminants in foods



Pesticides residues



Fertilizer residues



Heavy Metals



Mycotoxins



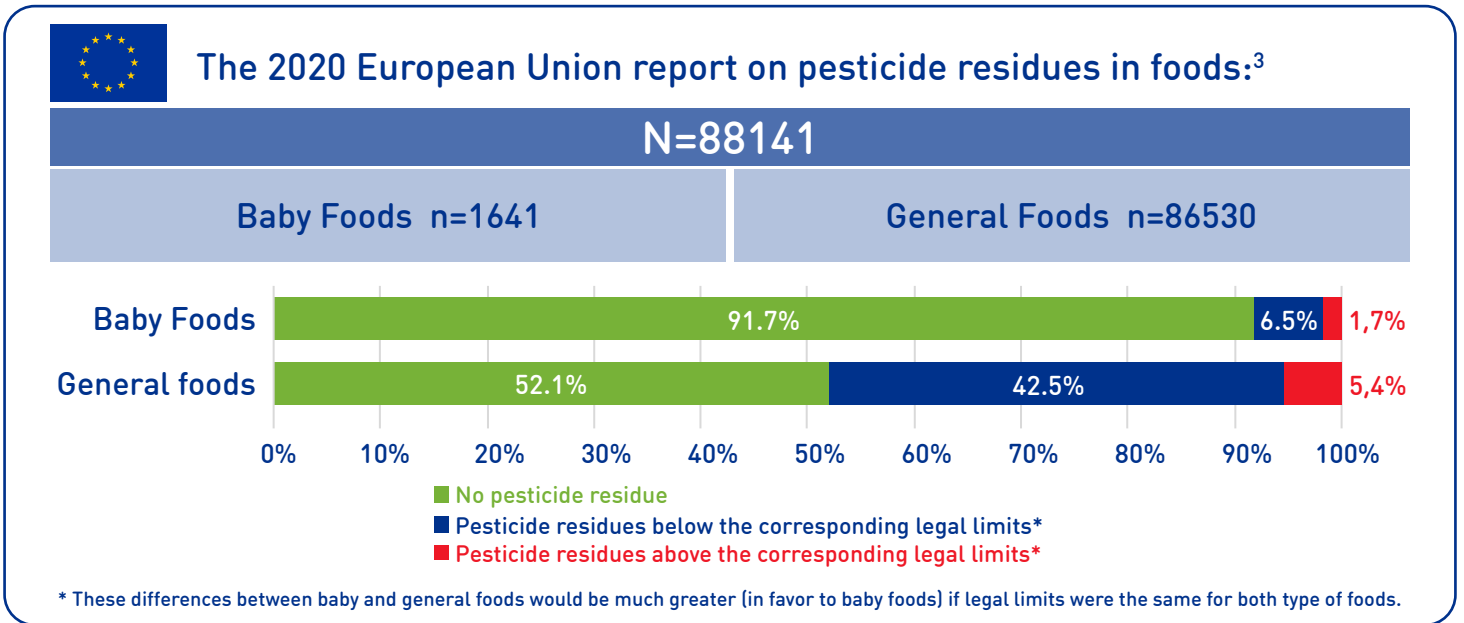
Process contaminants



Packaging compounds

Group	Example	Limits in Commercial Baby Foods	Limits in General Foods	How much stricter?
Pesticides residues	Glyphosate	0.01 mg/kg	Lentils, peas 10 mg/kg	x1000
	_____		Potato 0.5 mg/kg	x50
	Thiabendazole		Banana 6 mg/kg	x600
	_____		Apple & Pear 4 mg/kg	x400
Fertilizer residues	Nitrates	200 mg/kg	Fresh spinach 2500-3000 mg/kg	x20
Heavy Metals	Lead	0.02mg/kg	Cereals & legumes 0.20 mg/kg	x10
	Arsenic (inorganic)	0.10 mg/kg	Rice 0.25 mg/kg	x2.5
Mycotoxins	Aflatoxin B1	0.01 µg/kg	Cereals 2 µg/kg	x200
Produced in process	Acrylamide	40 µg/kg	Cookies 350 µg/kg	x9

Commercial baby foods are the foods with the least pesticide residue levels in the European market



Nutrition

Specifically designed by experts according to babies' needs

1

...by experts in Food Science & Nutrition who take into account the latest scientific recommendations for nutrition and development of infants and young children

National & International Pediatric Organizations (i.e. ESPGHAN^{4,5}, AAP⁶)
 International Recommendations (i.e. EFSA^{7,8}, WHO^{9,10})

Commercial Baby Foods are designed and developed...



2

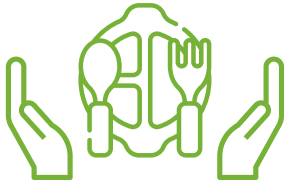
...based on EU legislation that establishes the content of protein, carbohydrates, fats, sodium, vitamins and minerals in commercial baby foods¹ to promote healthy dietary habits

- Assuring an adequate intake of carbohydrates, protein and fat
- Assuring high protein quality
- Assuring iron content
- Avoiding excessive sodium intake
- Avoiding sweet and salty foods

Naturalness

Commercial Baby Foods are more natural than general foods

Why?



Because many additives and other substances are not allowed in commercial baby foods according to EU legislation (preservatives, glutamates, nitrates, artificial sweeteners & colors)



Because the farming practices of the ingredients used in baby foods are pesticide controlled.

How do we measure Food Naturalness?

With a scientific validated Index named the **Food Naturalness Index (FNI)**^{11, 12} that measures the degree of naturalness in food products taking into account legal, scientific-technical and consumer perspectives.

The FNI measures the degree of food naturalness on a scale from 1 to 5.


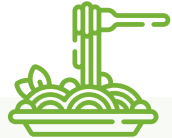
FNI scores	1 Not natural at all	2 Slightly natural	3 Moderately natural	4 Very natural	5 Extremely natural
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The **four criteria** used in the calculation are:

- The different **farming practices** that according to legislation have differences in the use of pesticides, fertilizers and limits of contaminants.
- The **number of additives**
- The **number of unnecessary/unexpected ingredients** (ingredients that “aren’t found” in a normal kitchen cupboard)
- The **number of processed ingredients**



An example of FNI (Food Naturalness Index) in baby vs. Adult pasta meal

Criteria	 Macaroni bolognese (adults)	 Spaghetti with meat and veggies (Baby food)
Farming practices	Conventional	Pesticides controlled*
Nº additives	2 (E451i; modified corn starch)	0
Nº of unnecessary/ unexpected ingredients	0	1 (rice flour)
Nº of processed ingredients	4 (refined cereals, egg powder, sunflower oil, sugar)	1 (refined cereals)
FNI	2.75 (slightly natural)	4.00 (very natural)

*stricter limits vs. general foods



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3. EFSA (European Food Safety Authority), Carrasco Cabrera, L and Medina Pastor, P, 2022. The 2020 European Union report on pesticide residues in food. EFSA Journal 2022; 20(3):7215, 57 pp. <https://doi.org/10.2903/j.efsa.2022.7215>.
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