

AOECS POSITION PAPER ON THE USE OF GLUTEN-CONTAINING EXCIPIENTS IN MEDICINES AND COSMETICS

INTRODUCTION

The AOECS Licensing System, which relies on the AOECS Standard for pre-packaged food products, *does not permit* the use of the Crossed Grain Trademark on the packaging of medicines, cosmetics, or hygiene products.

This position paper explains the rationale behind this decision.

The AOECS owns the AOECS Standard for pre-packaged food products and the Crossed Grain Trademark, which is managed by its National Coeliac Societies in their respective countries. Consequently, thousands of safe gluten-free food products are available on the market and easily recognisable by any consumer.

The AOECS Standard fully adheres to the Codex Alimentarius, which is the collection of standards and guidelines jointly established by FAO and WHO to protect consumer health. AOECS is an observer member of the CODEX Commission, to advocate for coeliacs and ensure their specific concerns are taken into consideration.

WHAT IS GLUTEN?

Gluten is the protein found in the seed of cereals; wheat, barley, rye, triticale and some varieties of oats; and any products using those cereals, like bread, pasta, cakes, biscuits and sauces.

Gluten is responsible for the elasticity of flour dough and gives bread and baked goods their consistency and sponginess. For this reason, it is appreciated in foodstuffs because of its thickening properties.





THE ASSOCIATION OF EUROPEAN COELIAC SOCIETIES

WHAT DOES EXCIPIENTS MEAN IN PHARMACEUTICALS?

Medicines, regardless of the route of administration, are composed of an active ingredient, which is responsible for the desired effect, and excipients.

An excipient is a substance formulated alongside the active ingredient of a medication, which can provide long-term stabilisation, bulk up solid formulations, or confer a therapeutic enhancement to the active ingredient in the final dosage form, such as by giving consistency, shape, or flavour to the medicine.

Certain medicines are formulated with excipients containing gluten for technical or bioavailability reasons.

Bioavailability refers to the ability of a medicine to be absorbed and utilised by the body.

Typically, when a laboratory uses excipients with wheat or potato starches, it uses them in all its formulations. This precautionary approach allows the laboratory to minimise possible risks, as in the pharmaceutical industry, even a small variation in the medication formula can completely alter the final product, affecting its quality and pharmacological activity.

HOW ARE EXCIPIENTS IMPORTANT FOR COELIACS?

Although some medicines can contain gluten, they are usually not a problem for coeliacs. However, coeliacs should be cautious and aware of this before consuming any medicine, especially when long-term use of gluten-containing drugs is required.

Wheat starch¹ is occasionally used as an excipient in the formulation of medicinal products such as tablets, capsules, and pills, serving various functions including as a diluent, disintegrant, glidant, or binder. Depending on the quality of the wheat starch, gluten may be present.

The European Pharmacopoeia defines a maximum total protein content of 0.3% (3,000 mg/kg or ppm) that wheat starch could have when present as an excipient in a medication. This correlates with the gluten content for food labelled as gluten-free, where the limit is 20 mg/kg (ppm).

This limit has been calculated for food based on safe daily gluten consumption. If a coeliac patient consumes 500 g/day (assuming accidental consumption of about 100 g per meal), the safe limit for gluten-free food is 20 mg/kg (Luque et al. 2023). So, an eventual gluten content of 10 mg/kg (ppm) in a medicine weighing less than a gram or a few grams results in gluten consumption that does not pose a risk to coeliacs².

¹ The quality rules for wheat starch used as an excipient in drugs say that this is used in a very low quantity and the ready drug/pills' total gluten content will be far below the 20 mg/kg limit.

² For example, a medicine of 5 mg at 100 mg/kg gluten concentration means: 0,0005 mg of gluten consumed.

At the same time, EU regulation on medicine production defines which excipients must be declared. Unlike food, for medicines, it is not necessary to mention this information on the packaging, but it will usually appear in the medicine package leaflet.

Pharmacies can also use their specific pharma software to help coeliac patients understand the composition of their medicines.

Information concerning excipients is displayed in the format of *'it contains + name of the excipient'*. Many pharmaceutical laboratories are adding the word *'gluten'* following the name of the excipient, as it helps patients to understand. However, the mention of the word *'gluten'* is not mandatory.

Ideally, the doctor should check before prescribing medication to a coeliac patient with gluten hypersensitivity or those affected by chronic diseases (other than coeliac disease) that may require long-term, high doses of specific drugs.

If gluten is present, the doctor should prescribe the active ingredient so the pharmacy can select a gluten-free formulation. **In all other cases, providing the patient with accurate information about gluten content is important to avoid worry or confusion.**



ARE MEDICINES SAFE FOR COELIACS?



The European and national regulations for medicine production and the necessary controls, guarantee that all medicines in the European market can be considered safe and suitable for people with coeliac disease and patients with Herpetiformis Dermatitis.

However, it is important to highlight that a good relationship between doctors and patients is crucial to achieving the best approach.

For example:

- In cases of individuals with hypersensitivity the suitability of a medicine should be evaluated on a case-by-case basis. (Hypersensitivity can appear after starting the pharmaceutical treatment. If that is the case, check the ingredients and ask your doctor for a replacement).
- In almost all cases an alternative medicinal product can be prescribed. In some cases the alternative will contain the same pharmacological active ingredient but will not contain wheat starch.

- In the case of chronic disease treatments (other than CD), it is advisable that coeliac patients follow the doctor's recommendations closely. While in some cases it will be preferable to use a medicine that doesn't contain gluten (as the patient will be taking that medication permanently and on a long-term basis, it could trigger an adverse reaction of the immune system.) In other instances, the risk-benefit balance may indicate that the patient is better off by taking a medicine that contains gluten.
- Sometimes medications can cause side effects that are similar to symptoms that occur after eating gluten. These side effects should disappear once the course of medication is complete. Known side effects will be reported in the patient information leaflet. If you have any unexpected side effects or concerns when taking medications, speak to your doctor or pharmacist. Prescribed medications should only be taken or stopped under medical advice from your doctor.

WHAT ABOUT HYGIENE AND COSMETIC PRODUCTS?

Although there are lymphocytes in the epidermis, whose response to gluten-containing cosmetics is unknown, gluten primarily triggers an adverse reaction in coeliacs when it comes into contact with the bowel.

Therefore, therapeutical treatments, hygiene products, cosmetics and any other material that get in contact only with the person's skin or mucosae, are not deemed risky for coeliacs and Herpetiformis Dermatitis patients even if these products contain gluten.

Likewise, toothpaste and lipsticks are safe for coeliacs, even if they contain gluten in their formulation because the amount of the product that could be ingested in its normal use is very small. It is unlikely that you would swallow enough of the product to cause a problem.

We have some understanding of the disease process in coeliac disease, which involves immune cells becoming gluten-specific immune cells. Once triggered, these cells remain in the immune system, so any time gluten is consumed — whether intentionally or inadvertently—they are ready to respond and cause problems. Gluten-specific immune cells are most prevalent in the gut but can also be found in the bloodstream and even in the skin.

For someone with coeliac disease to have a reaction to gluten they have to eat it. In addition there is the potential that is a coeliad had an open wound, anything containing gluten that was placed in that open wound or mucosae, could potentially reach the immune cells in the blood stream or mucosae. When skin is intact and not broken the molecules are too large to pass through to the blood stream and cause a reaction.

Additionally, there is no specific legislation for allergen management regarding these products, and there is no evidence that the official method of analysis for quantifying gluten is applicable to non-food matrices. In most cases, the gluten-free claim for these products is based on ingredient information.

Although there is no legislation for allergen labelling on those products, there is the INCI (International Nomenclature of Cosmetics Ingredients), which is the international standard language used to name ingredients on the packaging for cosmetic products. It therefore can help coeliacs consumer to identify them.

Cosmetic Europe point out that claims in cosmetics products must comply with Regulation 655/2013 and from their member societies discourage the use of a gluten free claim because it may not comply with all

Common Criteria for cosmetic claims;

- the *Honest criterion* states that “Claims shall not attribute to the product concerned specific (i.e. unique) characteristics if similar products possess the same characteristics.” At this moment, most cosmetic products in the European market are free from gluten.
- the *Fairness criterion* states that “Claims for cosmetic products shall be objective and shall not denigrate the competitors, nor shall they denigrate ingredients legally used”. In order to assess this, it is worth considering whether there is a real consumer benefit related to this ‘free from’ claim – and with the current information there isn’t.

There is no clear evidence about how companies who use the claim “gluten-free” are ensuring its use. As it stands the use of the claim could imply that the cosmetic product might be ingested and this method of application is not included in the very definition of cosmetic products.



REFERENCES

- Luque V, Crespo - Escobar P, Hård af Segerstad EM, et al. Gluten-free diet for pediatric patients with coeliac disease: a position paper from the ESPGHAN gastroenterology committee, special interest group in coeliac disease. J Pediatr Gastroenterol Nutr. 2023;1-23. <https://doi.org/10.1002/jpn3.12079>
- Wieser, H.; Segura, V.; Ruiz-Carnicer, Á.; Sousa, C.; Comino, I. Food Safety and Cross-Contamination of Gluten-Free Products: A Narrative Review. Nutrients 2021, 13, 2244. <https://doi.org/10.3390/nu13072244>
- Singh, P., Arora, A., Strand, T. A., Leffler, D. A., Catassi, C., Green, P. H., Kelly, C. P., Ahuja, V., & Makharia, G. K. (2018). Global Prevalence of Celiac Disease: Systematic Review and Meta-analysis. Clinical gastroenterology and hepatology: the official clinical practice journal of the American Gastroenterological Association, 16(6), 823–836.e2. <https://doi.org/10.1016/j.cgh.2017.06.037>
- Annex to the European Commission guideline on ‘Excipients in the labelling and package leaflet of medicinal products for human use’, European Medicines Agency.
- European Pharmacopoeia (Ph. Eur.)

FIND OUT MORE

- European Pharmacopoeia - <https://www.edqm.eu/en/european-pharmacopoeia-ph.-eur.-11th-edition>
- EU regulation – European Medicines Agency - <https://www.ema.europa.eu/en/annex-european-commission-guideline-excipients-labelling-package-leaflet-medicinal-products-human#current-version-section>
- Cosmetic Europe - <https://cosmeticseurope.eu/>



ABOUT AOECS

AOECS is an independent, non-profit organization. Since 1988, we have been dedicated to improving the lives of people affected by coeliac disease. AOECS represents 39 European national coeliac member societies and five affiliated coeliac organizations from outside of Europe.

Coeliac disease (also spelled celiac disease) is an autoimmune disorder in which cereals containing gluten trigger an inflammatory reaction in the small intestine.

It is estimated that around 100 million people worldwide suffer from coeliac disease. However, only about 25% of them have received a diagnosis; the rest are either unaware of their condition or suffer from various related ailments.

If left untreated, the disease can lead to a severely reduced quality of life and symptoms such as infertility, osteoporosis and chronic fatigue.

As of today, the only known cure for coeliac disease is a lifelong, strict gluten-free diet.

Read more on www.aoecs.org



AOECS PROMOTES

- Strategic partnerships to raise awareness on coeliac disease among the general public as well as politicians and health care professionals.
- Actions to improve coeliacs' quality of life through early diagnosis and access to safe gluten free food.
- Research on coeliac disease, including avenues towards a potential future cure.