

(参考11) Codex委員会によるグルテン不耐症者のための特別用途食品に関するコーデックス規格(CODEX STAN118-1979) (昭和54年採択、平成27年最終修正)

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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STANDARD FOR FOODS FOR SPECIAL DIETARY USE FOR PERSONS INTOLERANT TO GLUTEN

CXS 118-1979

Adopted in 1979. Amended in 1983 and 2015. Revised in 2008.

1. SCOPE

- 1.1** This standard applies to foods for special dietary uses that have been formulated, processed or prepared to meet the special dietary needs of people intolerant to gluten.
- 1.2** Foods for general consumption which by their nature are suitable for use by people with gluten intolerance may indicate such suitability in accordance with the provisions of Section 4.3.

2. DESCRIPTION

2.1 Definitions

The products covered by this standard are described as follows:

2.1.1 *Gluten-free foods*

Gluten-free foods are dietary foods

- a) consisting of or made only from one or more ingredients which do not contain wheat (i.e. all *Triticum* species, such as durum wheat, spelt, and khorasan wheat, which is also marketed under different trademarks such as KAMUT), rye, barley, oats¹ or their crossbred varieties, and the gluten level does not exceed 20 mg/kg in total, based on the food as sold or distributed to the consumer, and/or
- b) consisting of one or more ingredients from wheat (i.e. all *Triticum* species, such as durum wheat, spelt, and khorasan wheat, which is also marketed under different trademarks such as KAMUT), rye, barley, oats¹ or their crossbred varieties, which have been specially processed to remove gluten, and the gluten level does not exceed 20 mg/kg in total, based on the food as sold or distributed to the consumer.

2.1.2 *Foods specially processed to reduce gluten content to a level above 20 up to 100 mg/kg*

These foods consist of one or more ingredients from wheat (i.e., all *Triticum* species, such as durum wheat, spelt, and khorasan wheat, which is also marketed under different trademarks such as KAMUT), rye, barley, oats¹ or their crossbred varieties, which have been specially processed to reduce the gluten content to a level above 20 up to 100 mg/kg in total, based on the food as sold or distributed to the consumer.

Decisions on the marketing of products described in this section may be determined at the national level.

2.2 Subsidiary Definitions

2.2.1 *Gluten*

For the purpose of this standard, "gluten" is defined as a protein fraction from wheat, rye, barley, oats¹ or their crossbred varieties and derivatives thereof, to which some persons are intolerant and that is insoluble in water and 0.5M NaCl.

2.2.2 *Prolamins*

Prolamins are defined as the fraction from gluten that can be extracted by 40 - 70% of ethanol. The prolamin from wheat is gliadin, from rye is secalin, from barley hordein and from oats¹ avenin.

It is however an established custom to speak of gluten sensitivity. The prolamin content of gluten is generally taken as 50%.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

- 3.1** For products referred to in 2.1.1 a) and b), the gluten content shall not exceed 20 mg/kg in the food as sold or distributed to the consumer.
- 3.2** For products referred to in 2.1.2 the gluten content shall not exceed 100 mg/kg in the food as sold or distributed to the consumer.
- 3.3** Products covered by this standard substituting important basic foods, should supply approximately the same amount of vitamins and minerals as the original foods they replace.
- 3.4** The products covered by this standard shall be prepared with special care under Good Manufacturing Practice (GMP) to avoid contamination with gluten.

¹ Oats can be tolerated by most but not all people who are intolerant to gluten. Therefore, the allowance of oats that are not contaminated with wheat, rye or barley in foods covered by this standard may be determined at the national level.

4. LABELLING

In addition to the general labelling provisions contained in the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985) and the *General Standard for the Labelling of and Claims for Prepackaged Foods for Special Dietary Uses* (CXS 146-1985), and any specific labelling provisions set out in a Codex standard applying to the particular food concerned, the following provisions for the labelling of “gluten-free foods” shall apply:

- 4.1 The term “gluten-free” shall be printed in the immediate proximity of the name of the product in the case of products described in section 2.1.1.
- 4.2 The labelling of products described in section 2.1.2 should be determined at the national level. However these products must not be called gluten-free. The labelling terms for such products should indicate the true nature of the food, and shall be printed in the immediate proximity of the name of the product.
- 4.3 A food which, by its nature, is suitable for use as part of a gluten-free diet, shall not be designated “special dietary”, “special dietetic” or any other equivalent term. However, such a food may bear a statement on the label that “this food is by its nature gluten-free” provided that it complies with the essential composition provisions for gluten-free as set out in section 3.1 and provided that such a statement does not mislead the consumer. More detailed rules in order to ensure that the consumer is not misled may be determined at the national level.

5. METHODS OF ANALYSIS AND SAMPLING

5.1 General outline of the methods

- The quantitative determination of gluten in foods and ingredients shall be based on an immunologic method or other method providing at least equal sensitivity and specificity.
- The antibody used should react with the cereal protein fractions that are toxic for persons intolerant to gluten and should not cross-react with other cereal proteins or other constituents of the foods or ingredients.
- Methods used for determination should be validated and calibrated against a certified reference material, if available.
- The detection limit has to be appropriate according to the state of the art and the technical standard. It should be 10 mg gluten/kg or below.
- The qualitative analysis that indicates the presence of gluten shall be based on relevant methods (e.g. ELISA-based methods, DNA methods).

5.2 Method for determination of gluten

Enzyme-linked Immunoassay (ELISA) R5 Mendez Method.

Foods Labeled Gluten-Free Must Now Meet FDA's Definition

CFSAN Constituent Update

August 5, 2014

As of today, all foods labeled gluten-free must meet all requirements of the [gluten-free labeling final rule](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm363474.htm) (<http://web.archive.org/web/20140820191218/http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm363474.htm>) published in August 2013.

The requirements apply to packaged foods labeled on or after today. FDA recognizes that many foods currently labeled as gluten-free may already meet the new federal definition. However, consumers should be aware that there may be some products still on store shelves that were produced and labeled before the compliance date for FDA's rule.

Today's compliance date was established in the final rule one year ago to allow the food industry sufficient time to make changes needed in the formulation or labeling of their foods that voluntarily bear a gluten-free claim in the United States.

The final rule provides a uniform standard definition to help consumers with celiac disease manage a gluten-free diet. Gluten-free foods must contain less than 20 parts per million (ppm) gluten. Foods may be labeled "gluten-free" if they are inherently gluten free; or do not contain an ingredient that is: 1) a gluten-containing grain (e.g., spelt wheat); 2) derived from a gluten-containing grain that has not been processed to remove gluten (e.g., wheat flour); or 3) derived from a gluten-containing grain that has been processed to remove gluten (e.g., wheat starch), if the use of that ingredient results in the presence of 20 ppm or more gluten in the food.

On June 25, 2014, the FDA issued a guide for small food businesses to help them comply with the final rule's requirements. FDA will continue to work with, educate and monitor industry on the use of the gluten-free claim.

Outreach will be conducted to assist the industry, as needed, to ensure that the provisions of the rule are fully understood. In addition, FDA will use its existing compliance and enforcement tools, such as inspection, laboratory analysis, warning letters, seizure, and injunction, to ensure that the use of the claim on food packages complies with the definition.

FDA recognizes that people with celiac disease are also interested in being able to identify gluten free foods served in restaurants and other retail establishments that serve prepared foods to customers. The gluten-free final rule applies to packaged foods, which may be sold in some retail and food-service establishments such as some carry-out restaurants. Given the public health significance of "gluten-free" labeling, FDA says that restaurants and other establishments making a gluten-free claim on their menus should be consistent with FDA's definition. State and local governments play an important role in oversight of these establishments.

We look forward to working with the states, the restaurant industry and other stakeholders to support education and outreach on the appropriate use of the term gluten-free.

For additional information: www.fda.gov/gluten-freelabeling
(<http://web.archive.org/web/20140820191218/http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Allergens/ucm362510.htm>)

食品安全関係情報詳細

資料管理ID	syu04091450105
タイトル	米国食品医薬品庁(FDA)、「グルテンフリー」表示規則を施行
資料日付	2014年8月5日
分類1	--未選択--
分類2	--未選択--
概要(記事)	<p>米国食品医薬品庁(FDA)は8月5日、「グルテンフリー」表示規則を施行した。概要は以下のとおり。</p> <p>グルテンフリー表示の付いた全ての食品は、本日をもって昨年8月に公布したグルテンフリー表示最終規則の全要件に従わねばならない。当該要件は本日以降、ラベル付き包装食品に適用される。グルテンフリー表示の付いた多くの食品は、既に新要件に適合していると承知しているが、施行日以前に生産及び表示された製品もまだ店頭にあることを消費者は認識すべきである。</p> <p>本日の施行日は1年前から最終規則で設定されており、食品業界に十分な期間を猶予して、自発的にグルテンフリー表示を行う対象食品の調製及び表示内容に必要な変更を加えられるようにした。</p> <p>最終規則では、セリアック病を有する消費者がグルテンフリー食を管理しやすくなるように、統一基準の定義を定めた。グルテンフリー食品中に含まれるグルテンは20ppm未満でなければならない。本質的にグルテンを含まない食品、又は以下の原料を含まない食品は「グルテンフリー」と表示できる。</p> <ol style="list-style-type: none"> 1) グルテン含有穀物(スペルト小麦等)である原料 2) グルテン除去処理が施されていないグルテン含有穀物(小麦粉等)に由来する原料 3) グルテン除去処理が施されたグルテン含有穀物に由来する原料(小麦でん粉等)であって、その原料の使用により食品中のグルテン含有量が20ppm以上となる場合。 <p>(中略)</p> <p>セリアック病を有する消費者は、飲食店等で提供される食品についてもグルテンの有無を判別できるようになることを期待しており、FDAはその点を承知している。このグルテンフリー最終規則は、小売店及びテイクアウト飲食店等の食品提供施設が販売する包装食品を適用対象としている。「グルテンフリー」表示が果たす公衆衛生上の意義からすれば、飲食店その他の施設がメニューに表示を行う場合、内容はFDAの定義と整合すべきである。州及び自治体当局は、そのような施設の監督に重要な役割を果たす。</p> <p>グルテンフリーという用語の適正な使用に関して、FDAは州、飲食店業界その他利害関係者と協働し、教育及び普及活動を支援していく。</p>
地域	北米
国・地方	米国
情報源(公的機関)	米国/食品医薬品庁(FDA)
情報源(報道)	米国食品医薬品庁(FDA)

URL	http://www.fda.gov/Food/NewsEvents/ConstituentUpdates/ucm407867.htm
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COMMISSION IMPLEMENTING REGULATION (EU) No 828/2014

of 30 July 2014

on the requirements for the provision of information to consumers on the absence or reduced presence of gluten in food

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers ⁽¹⁾, and in particular Article 36(3)(d) thereof,

Whereas:

- (1) People with coeliac disease suffer from a permanent intolerance to gluten. Wheat (i.e. all *Triticum* species, such as durum wheat, spelt, and khorasan wheat), rye and barley have been identified as grains that are scientifically reported to contain gluten. The gluten present in those grains can cause adverse health effects to people intolerant to gluten and therefore its consumption should be avoided by such people.
- (2) Information on the absence or reduced presence of gluten in food should help people intolerant to gluten to identify and choose a varied diet when eating inside or outside the home.
- (3) Commission Regulation (EC) No 41/2009 ⁽²⁾ sets out harmonised rules on the information provided to consumers on the absence ('gluten-free') or reduced presence of gluten ('very low gluten') in food. The rules of that Regulation are based on scientific data and guarantee that consumers are not misled or confused by information provided on a divergent basis on the absence or reduced presence of gluten in food.
- (4) In the context of the revision of the legislation on foodstuffs intended for particular nutritional uses Regulation (EU) No 609/2013 of the European Parliament and of the Council ⁽³⁾ repeals Regulation (EC) No 41/2009 from 20 July 2016. It should be ensured that, after that date, the provision of information on the absence or reduced presence of gluten in food continues to be based on the relevant scientific data and is not provided on a divergent basis which could mislead or confuse the consumers, in accordance with the requirements laid down in Article 36(2) of Regulation (EU) No 1169/2011. It is therefore necessary that uniform conditions for the application of these requirements to food information provided by food business operators on the absence or reduced presence of gluten in food are maintained in the Union and these conditions should be based on Regulation (EC) No 41/2009.
- (5) Certain foods have been specially produced, prepared and/or processed to reduce the gluten content of one or more gluten-containing ingredients or to substitute the gluten-containing ingredients with other ingredients naturally free of gluten. Other foods are made exclusively from ingredients that are naturally free of gluten.
- (6) The removal of gluten from gluten-containing grains presents considerable technical difficulties and economic constraints and therefore the manufacture of totally gluten-free food when using such grains is difficult. Consequently, many foods especially processed to reduce the gluten content of one or more gluten-containing ingredients on the market may contain low residual amounts of gluten.

⁽¹⁾ OJ L 304, 22.11.2011, p. 18.

⁽²⁾ Commission Regulation (EC) No 41/2009 of 20 January 2009 concerning the composition and labelling of foodstuffs suitable for people intolerant to gluten (OJ L 16, 21.1.2009, p. 3).

⁽³⁾ Regulation (EU) No 609/2013 of the European Parliament and of the Council of 12 June 2013 on food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control and repealing Council Directive 92/52/EEC, Commission Directives 96/8/EC, 1999/21/EC, 2006/125/EC and 2006/141/EC, Directive 2009/39/EC of the European Parliament and of the Council and Commission Regulations (EC) No 41/2009 and (EC) No 953/2009 (OJ L 181, 29.6.2013, p. 35).

- (7) Most people with intolerance to gluten can include oats in their diet without adverse effect on their health. This is an issue of ongoing study and investigation by the scientific community. However, a major concern is the contamination of oats with wheat, rye or barley that can occur during grain harvesting, transport, storage and processing. Therefore, the risk of gluten contamination in products containing oats should be taken into consideration with regard to the relevant information provided on those food products by food business operators.
- (8) Different people with intolerance to gluten may tolerate variable small amounts of gluten within a restricted range. In order to enable individuals to find on the market a variety of foodstuffs appropriate for their needs and for their level of sensitivity, a choice of products should be possible with different low levels of gluten within such a restricted range. It is important, however, that the different products are properly labelled in order to ensure their correct use by people intolerant to gluten with the support of information campaigns fostered in the Member States.
- (9) It should be possible for a food which is specially produced, prepared and/or processed to reduce the gluten content of one or more gluten-containing ingredients or to substitute the gluten-containing ingredients with other ingredients naturally free of gluten to bear terms indicating either the absence ('gluten-free') or reduced presence ('very low gluten') of gluten in accordance with the provisions laid down in this Regulation. It should also be possible for this food to bear a statement informing consumers that it is specifically formulated for people intolerant to gluten.
- (10) It should also be possible for a food containing ingredients naturally free of gluten to bear terms indicating the absence of gluten, in accordance with the provisions laid down in this Regulation and provided that the general conditions on fair information practices set out in Regulation (EU) No 1169/2011 are complied with. In particular, food information should not be misleading by suggesting that the food possesses special characteristics when in fact all similar foods possess such characteristics.
- (11) Commission Directive 2006/141/EC ⁽¹⁾ prohibits the use of ingredients containing gluten in the manufacture of infant formulae and follow-on formulae. Therefore, the use of the statements 'very low gluten' or 'gluten-free' when providing information on such products should be prohibited given that pursuant to the present Regulation, these statements are used for indicating respectively a content of gluten not exceeding 100 mg/kg and 20 mg/kg.
- (12) The Codex Standard for Foods for Special Dietary Use for Persons Intolerant to Gluten ⁽²⁾ should be taken appropriately into consideration for the purposes of this Regulation.
- (13) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on the Food Chain and Animal Health,

HAS ADOPTED THIS REGULATION:

Article 1

Scope and subject matter

This Regulation applies to the provision of information to consumers on the absence or reduced presence of gluten in food.

⁽¹⁾ Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae and amending Directive 1999/21/EC (OJ L 401, 30.12.2006, p. 1).

⁽²⁾ CODEX STAN 118-1979.

*Article 2***Definitions**

For the purposes of this Regulation, the following definitions shall apply:

- (a) 'gluten' means a protein fraction from wheat, rye, barley, oats or their crossbred varieties and derivatives thereof, to which some persons are intolerant and which is insoluble in water and 0,5 M sodium chloride solution;
- (b) 'wheat' means any *Triticum* species.

*Article 3***Information to consumers**

1. Where statements are used to provide information to consumers on the absence or reduced presence of gluten in food, such information shall be given only through the statements and in accordance with the conditions set out in the Annex.
2. The food information referred to in paragraph 1 may be accompanied by the statements 'suitable for people intolerant to gluten' or 'suitable for coeliacs'.
3. The food information referred to in paragraph 1 may be accompanied by the statements 'specifically formulated for people intolerant to gluten' or 'specifically formulated for coeliacs' if the food is specially produced, prepared and/or processed to:
 - (a) reduce the gluten content of one or more gluten-containing ingredients; or
 - (b) substitute the gluten-containing ingredients with other ingredients naturally free of gluten.

*Article 4***Infant formulae and follow-on formulae**

The provision of food information on the absence or reduced presence of gluten in infant formulae and follow-on formulae as defined in Directive 2006/141/EC shall be prohibited.

*Article 5***Entry into force and application**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 20 July 2016.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 30 July 2014.

For the Commission
The President
José Manuel BARROSO

ANNEX

Statements on the absence or reduced presence of gluten in food that are allowed to be made and conditions thereof**A. General requirements**

GLUTEN-FREE

The statement 'gluten-free' may only be made where the food as sold to the final consumer contains no more than 20 mg/kg of gluten.

VERY LOW GLUTEN

The statement 'very low gluten' may only be made where the food, consisting of or containing one or more ingredients made from wheat, rye, barley, oats or their crossbred varieties which have been specially processed to reduce the gluten content, contains no more than 100 mg/kg of gluten in the food as sold to the final consumer.

B. Additional requirements for food containing oats

Oats contained in a food presented as gluten-free or very low gluten must have been specially produced, prepared and/or processed in a way to avoid contamination by wheat, rye, barley, or their crossbred varieties and the gluten content of such oats cannot exceed 20 mg/kg.

食品安全関係情報詳細

資料管理ID	syu04091440305
タイトル	欧州連合(EU)、グルテンフリー又は低グルテン食品の表示要件を設定
資料日付	2014年7月31日
分類1	--未選択--
分類2	--未選択--
概要 (記事)	<p>欧州連合(EU)は7月31日、グルテンフリー(GLUTEN-FREE)又は低グルテン(VERY LOW GLUTEN)食品の表示要件を設定した委員会施行規則(EU) No 82 8/2014を官報で公表した。概要は以下のとおり。</p> <ol style="list-style-type: none"> セリアック病患者は、永続的なグルテン不耐症に苦しむ。小麦(デュラム小麦、スペルト小麦及びホラーサーン小麦等のすべてのコムギ属)、ライ麦及び大麦は、グルテンを含有することが科学的に報告されている穀類として特定されている。これらの穀類中に存在するグルテンはグルテン不耐症者に有害な健康影響を引き起こす可能性があるため、グルテン不耐症者はそれらの摂取を避けなくてはならない。 グルテンを含有する穀類からグルテンを除去することは、技術的にかなり難しく、経済的な負担も大きい。そのような穀類を使用し、グルテンを完全に除去した食品を製造することは困難である。その結果、グルテンを含有する原材料を1つ又は複数使用し、グルテン含有量を低減するために特別に加工された市販の多くの食品は、少量の残留グルテンを含有している可能性がある。 大多数のグルテン不耐症者は、自分たちの健康に悪影響を及ぼすことなく食事にえん麦を含めることができる。このことは、科学の世界で研究及び調査が進められている問題である。しかし、穀類の収穫、輸送、貯蔵及び処理中に起こる可能性があるえん麦への小麦、ライ麦又は大麦の混入が大きな懸念である。したがって、これらの食品について食品事業者が提供する関連情報に関して、えん麦を含有する製品中へのグルテン混入リスクを考慮に入れることが望ましい。 委員会指令2006/141/ECは、乳児用調製乳及びフォローオン調製乳の製造において、グルテンを含有する原材料の使用を禁じている。したがって、「低グルテン」又は「グルテンフリー」という表示は、委員会施行規則(EU) No 82 8/2014に従ってグルテン含有量がそれぞれ100mg/kg及び20mg/kgを超えないことを示すために使用されることを考えると、乳児用調製乳及びフォローオン調製乳に関する表示において、「低グルテン」又は「グルテンフリー」という表示の使用は禁止されるべきである。 <p>以上の経緯及び観点から、グルテンフリー又は低グルテン食品の表示要件が次のように定められた。</p> <p>A. 一般要件</p> <p>グルテンフリー(GLUTEN-FREE)</p> <p>「グルテンフリー」の表示は、最終消費者に販売される食品に含まれるグルテンが20mg/kgを超えない場合にのみ、当該食品に表示することができる。</p> <p>低グルテン(VERY LOW GLUTEN)</p> <p>「低グルテン」の表示は、グルテン含有量を低減するため特別に加工された</p>

	<p>小麦、ライ麦、大麦、えん麦又はそれらの交配品種に由来する1つ又は複数の原材料を含み、最終消費者に販売される食品に含まれるグルテンが100mg/kgを超えない場合にのみ、当該食品に表示することができる。</p> <p>B. えん麦を含有する食品についての追加要件</p> <p>グルテンフリー又は低グルテンとして表示される食品に含まれるえん麦は、小麦、ライ麦、大麦又はそれらの交配品種の混入を回避する方法で特別に製造、調製及び/又は加工されていなければならない。そのようなえん麦のグルテン含有量は20mg/kgを超えてはならない。</p> <p>また、乳児用調製乳及びフォローオン調製乳において、「グルテンフリー」又は「低グルテン」の表示は禁止されることになった。委員会施行規則(EU) No 828/2014は、官報掲載の20日後に発効し、2016年7月20日から適用される。</p>
地域	欧州
国・地方	EU
情報源（公的機関）	欧州連合(EU)
情報源（報道）	欧州連合(EU)
URL	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0828&from=EN

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"Leaky gut syndrome"

"Leaky gut syndrome" is a proposed condition some health practitioners claim is the cause of a wide range of long-term conditions, including [chronic fatigue syndrome](https://www.nhs.uk/conditions/chronic-fatigue-syndrome-cfs/) (Link: <https://www.nhs.uk/conditions/chronic-fatigue-syndrome-cfs/>) and [multiple sclerosis \(MS\)](https://www.nhs.uk/conditions/multiple-sclerosis/) (Link: <https://www.nhs.uk/conditions/multiple-sclerosis/>).

Proponents of "leaky gut syndrome" claim that many symptoms and conditions are caused by the immune system reacting to germs, toxins or other substances that have been absorbed into the bloodstream via a porous ("leaky") bowel.

While it's true that some conditions and medications can cause a "leaky" gut (what scientists call increased intestinal permeability), there is currently little evidence to support the theory that a porous bowel is the direct cause of any significant, widespread problems.

There is also little evidence that the "treatments" some people claim help to reduce bowel leakiness, such as nutritional supplements and herbal remedies, have any beneficial effect for most of the conditions they supposedly help.

(Link:)

What can cause a "leaky" bowel?

The inside of the bowel is lined by a single layer of cells that make up the mucosal barrier (the barrier between the inside of the gut and the rest of the body).

This barrier is effective at absorbing nutrients, but prevents most large molecules and germs passing from inside the bowel into the bloodstream and potentially causing widespread symptoms.

In some circumstances, this barrier can become less effective and "leaky", although this in itself is not generally thought to be sufficient to cause serious problems.

Alcohol and certain painkillers

Alcohol, [aspirin](https://www.nhs.uk/conditions/aspirin/) (Link: <https://www.nhs.uk/conditions/aspirin/>) and [non-steroidal anti-inflammatory drugs \(NSAIDs\)](https://www.nhs.uk/conditions/nsaids/) (Link: <https://www.nhs.uk/conditions/nsaids/>) such as [ibuprofen](https://www.nhs.uk/conditions/ibuprofen/) (Link: <https://www.nhs.uk/conditions/ibuprofen/>) are well-known irritants of the bowel lining. They can damage the seals between cells, allowing some substances to pass through the gaps and into the bloodstream.

Gastroenterologists (specialists in gut conditions) generally agree that these irritants don't usually cause anything more than just mild inflammation of a particular area of the bowel.

This will usually cause no obvious symptoms and will improve over time if you stop taking the medication or stop drinking alcohol. At the very worst, the inflammation might be bad enough to occasionally cause ulcers in the bowel lining.

Certain conditions and treatments

The following conditions and treatments can also damage the seals in the bowel lining:

- [inflammatory bowel diseases](https://www.nhs.uk/conditions/inflammatory-bowel-disease/) (Link: <https://www.nhs.uk/conditions/inflammatory-bowel-disease/>) – such as [Crohn's disease](https://www.nhs.uk/conditions/crohns-disease/) (Link: <https://www.nhs.uk/conditions/crohns-disease/>)
- infections of the intestines – such as [salmonella](https://www.nhs.uk/conditions/salmonella/) (Link: <https://www.nhs.uk/conditions/salmonella/>), [norovirus](https://www.nhs.uk/conditions/norovirus/) (Link: <https://www.nhs.uk/conditions/norovirus/>) and [giardiasis](https://www.nhs.uk/conditions/giardiasis/) (Link: <https://www.nhs.uk/conditions/giardiasis/>)
- [coeliac disease](https://www.nhs.uk/conditions/coeliac-disease/) (Link: <https://www.nhs.uk/conditions/coeliac-disease/>)
- [chemotherapy](https://www.nhs.uk/conditions/chemotherapy/) (Link: <https://www.nhs.uk/conditions/chemotherapy/>) medicines
- [chronic kidney disease](https://www.nhs.uk/conditions/kidney-disease/) (Link: <https://www.nhs.uk/conditions/kidney-disease/>)
- [radiotherapy](https://www.nhs.uk/conditions/radiotherapy/) (Link: <https://www.nhs.uk/conditions/radiotherapy/>) to the abdomen (tummy)
- immunosuppressants (medicines that weaken the immune system)
- [HIV/AIDS](https://www.nhs.uk/conditions/hiv-and-aids/) (Link: <https://www.nhs.uk/conditions/hiv-and-aids/>)
- [cystic fibrosis](https://www.nhs.uk/conditions/cystic-fibrosis/) (Link: <https://www.nhs.uk/conditions/cystic-fibrosis/>)

- [type 1 diabetes](https://www.nhs.uk/conditions/type-1-diabetes-old/) (Link: <https://www.nhs.uk/conditions/type-1-diabetes-old/>)
- [sepsis](https://www.nhs.uk/conditions/sepsis/) (Link: <https://www.nhs.uk/conditions/sepsis/>)
- complicated surgery

Generally, even in these situations treatment for a "leaky" bowel isn't necessary. However, under certain circumstances people with Crohn's disease, for example, may benefit from a liquid diet to reduce bowel inflammation, which also improves the leaky bowel (read more about [treating Crohn's disease](https://www.nhs.uk/conditions/crohns-disease/treatment/) (Link: <https://www.nhs.uk/conditions/crohns-disease/treatment/>)).

(Link:)

The "leaky gut syndrome" theory

Exponents of "leaky gut syndrome" – largely practitioners of [complementary and alternative medicine](https://www.nhs.uk/conditions/complementary-and-alternative-medicine/) (Link: <https://www.nhs.uk/conditions/complementary-and-alternative-medicine/>) – believe the bowel lining can become irritated and leaky as the result of a much wider range of factors, including an overgrowth of yeast or bacteria in the bowel, a poor diet and the overuse of [antibiotics](https://www.nhs.uk/conditions/antibiotics/) (Link: <https://www.nhs.uk/conditions/antibiotics/>).

They believe that undigested food particles, bacterial toxins and germs can pass through the "leaky" gut wall and into the bloodstream, triggering the immune system and causing persistent inflammation throughout the body. This, they say, is linked to a much wider range of health problems, including:

- [food allergies](https://www.nhs.uk/conditions/food-allergy/) (Link: <https://www.nhs.uk/conditions/food-allergy/>)
- [migraine](https://www.nhs.uk/conditions/migraine/) (Link: <https://www.nhs.uk/conditions/migraine/>)
- tiredness and [chronic fatigue syndrome](https://www.nhs.uk/conditions/chronic-fatigue-syndrome-cfs/) (Link: <https://www.nhs.uk/conditions/chronic-fatigue-syndrome-cfs/>)
- [asthma](https://www.nhs.uk/conditions/asthma/) (Link: <https://www.nhs.uk/conditions/asthma/>)
- [lupus](https://www.nhs.uk/conditions/lupus/) (Link: <https://www.nhs.uk/conditions/lupus/>), [rheumatoid arthritis](https://www.nhs.uk/conditions/rheumatoid-arthritis/) (Link: <https://www.nhs.uk/conditions/rheumatoid-arthritis/>) and [multiple sclerosis \(MS\)](https://www.nhs.uk/conditions/multiple-sclerosis/) (Link: <https://www.nhs.uk/conditions/multiple-sclerosis/>)
- skin conditions such as [scleroderma](https://www.nhs.uk/conditions/scleroderma/) (Link: <https://www.nhs.uk/conditions/scleroderma/>) and [eczema](https://www.nhs.uk/conditions/Eczema-(atopic)/Pages/Introduction.aspx) (Link: [https://www.nhs.uk/conditions/Eczema-\(atopic\)/Pages/Introduction.aspx](https://www.nhs.uk/conditions/Eczema-(atopic)/Pages/Introduction.aspx))

- [autism](https://www.nhs.uk/conditions/autism/) (Link: <https://www.nhs.uk/conditions/autism/>)

However, there is currently little evidence to suggest these conditions are in fact caused by having a leaky gut.

Promoted products

Many different "treatments" have been suggested by people who promote the idea of leaky gut syndrome, including diet books, nutritional supplements (containing [probiotics](https://www.nhs.uk/conditions/probiotics/) (Link: <https://www.nhs.uk/conditions/probiotics/>), for example), herbal remedies, gluten-free foods and other special diets, such as a low FODMAP, low sugar or antifungal diet.

However, you should be wary of treatments offered by people who claim to be able to "cure leaky gut syndrome", as there is little scientific evidence to suggest they are beneficial for many of the conditions they are claimed to help.

Some of the dietary changes suggested for "leaky gut syndrome" (such as a low FODMAP diet) can help people with [irritable bowel syndrome \(IBS\)](https://www.nhs.uk/conditions/irritable-bowel-syndrome-ibs/) (Link: <https://www.nhs.uk/conditions/irritable-bowel-syndrome-ibs/>), but these seem to work irrespective of the presence of a "leaky" gut.

Generally, eliminating foods from the diet is not a good idea unless it's strictly necessary (for example, if you have [coeliac disease](https://www.nhs.uk/conditions/coeliac-disease/) (Link: <https://www.nhs.uk/conditions/coeliac-disease/>)) and done on the advice of a healthcare professional, as it can lead to nutritional deficiencies.

(Link:)

Advice and further information

If you have symptoms that are not explained by a diagnosis, it may help to read the topic on [medically unexplained symptoms](https://www.nhs.uk/conditions/medically-unexplained-symptoms/) (Link: <https://www.nhs.uk/conditions/medically-unexplained-symptoms/>). Such mystery symptoms are surprisingly common, accounting for up to a fifth of all GP consultations in the UK.

If you have been diagnosed with a particular health condition, you can look it up in our [A-Z index of treatments and conditions](https://www.nhs.uk/conditions/) (Link: <https://www.nhs.uk/conditions/>), where you will find reliable, evidence-based information about its treatment.

Generally, it is wise to view "holistic" and "natural health" websites with scepticism – do not assume that the information they provide is correct or based on scientific facts or evidence.

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(仮訳)

“リーキーガット症候群”

「リーキーガット症候群」は、長期にわたる広範な症状(慢性疲労症候群(CFS)及び多発性硬化症(MS)など)の原因として一部の医療関係者が主張している説である。

「リーキーガット症候群」の提唱者らは、多くの症状及び状態は、孔の開いた(透過しやすくなる)腸を通して血中に取り込まれた細菌、毒性又は他の物質に対して免疫系が反応することが原因で起こると主張する。

確かに、一部の状態及び投薬治療が「透過しやすくなる(leaky)」腸の原因となる可能性はある(科学的には腸管の粘膜透過性の増大と言う)が、現時点で、孔の開いた腸が、重大で広範にわたる何らかの問題の直接的原因となるという理論を裏付けるエビデンスはほとんどない。

また、腸の漏れやすさ軽減への一助となると一部の人たちが主張する栄養サプリメント及びハーブ療法などの「治療法」が、状態の大半に関して、何らかの有益な効果を有するとするエビデンスはほとんどない。

腸が「透過しやすくなる」原因は？

腸の内側は、粘膜バリア(腸管内腔とその他の体の部分を隔てている障壁)を構成する細胞の単層に覆われている。

このバリアは、栄養分を効果的に吸収するだけでなく、高分子の大半及び病原菌が腸管を通して血流に侵入し、広範な症状を引き起こすことを防ぐ。

何らかの理由でこのバリアの有効性が弱まり「透過しやすくなる」状態となることはありうるが、このこと自体は重大な問題を引き起こすのに十分とは考えられていない。

アルコール及び特定の鎮痛剤

アルコール、アスピリン及びイブプロフェンなどの非ステロイド系抗炎症薬 (NSAIDs) は、腸の粘膜層に対して刺激性であることはよく知られている。それらは細胞間の密閉性に損傷を与え、その結果、一部の物質が間隙を通過して血流に入ることはありうる。

消化管疾患の専門家らの一般的な考えでは、通常、これらの刺激物は腸の特定部分に軽度の炎症を引き起こす程度である。

通常、それは明白な症状を引き起こさず、投薬又は飲酒を中止すれば時間の経過と共に改善される。最悪の場合でも、炎症が稀に腸管粘膜中に潰瘍を引き起こす程度であると考えられる。

特定の症状及び治療法

腸管粘膜の密閉性は、以下の状態及び治療法によっても損傷を受ける可能性がある。

- ・炎症性腸疾患 (クローン病など)
- ・感染性腸炎 (サルモネラ属菌感染、ノロウイルス感染及びジアルジア症など)
- ・セリアック病
- ・化学療法
- ・慢性腎臓疾患
- ・腹部への放射線療法
- ・免疫抑制剤
- ・ヒト免疫不全ウイルス (HIV) / 後天性免疫不全症候群 (AIDS)
- ・嚢胞性線維症
- ・1型糖尿病
- ・敗血症
- ・複雑な外科手術

一般的に、こうした状態にあっても、「透過しやすくなる」腸に対する治療は不要である。しかし、特定の状況下では、例えばクローン病患者にとっては、腸の炎症を軽減させるための流動食は便益となる場合がある。これは、透過しやすくなる腸を改善することにも繋がる。

「リーキーガット症候群」の理論

「リーキーガット症候群」を提唱する人たち(主に補完・代替療法の開業者)は、腸内の酵母又は細菌の過剰な増殖、栄養不足及び抗生物質の使い過ぎなどを含め、非常に広範な要因の結果として、腸管粘膜が炎症を起こし透過しやすくなる状態となると信じている。

彼らはまた、消化されなかった食物の粒子、細菌の毒性物質及び病原菌が「透過しやすくなる状態」の腸壁を通して血流に入り、そのことが免疫系の引き金となり、全身に持続的な炎症を生じさせると信じている。彼ら曰く、このことは、以下に示す更に広範な健康上の問題と関連性がある。

- ・ 食物アレルギー
- ・ 片頭痛
- ・ 疲労感及び慢性疲労症候群(CFS)
- ・ 喘息
- ・ 全身性エリテマトーデス(lupus)、関節リウマチ及び多発性硬化症(MS)
- ・ 強皮症や湿疹などの皮膚症状
- ・ 自閉症

しかし、現時点で、これらの症状が実際に「透過しやすくなる状態の腸」が原因であることを示唆するエビデンスはほとんどない。

喧伝されている製品

リーキーガット症候群の考えを提唱する人たちによって、多種多様の「治療法」が提案されている。それらは、ダイエット本の類、栄養サプリメント(例えば、プロバイオティクスを含有するもの)、ハーブ療法、グルテンフリー食品及び他の特別な食事(低FODMAP(小腸内で消化・吸収されにくい糖類)ダイエット、低糖ダイエット又は抗真菌剤ダイエットなど)である。

しかし、「リーキーガット症候群を治せる」と主張する人たちが提供する治療法には慎重に向き合う必要がある。彼らが治療に役立つと主張する多くの症状に関して、有益な効果を示唆する科学的エビデンスはほとんどない。

「リーキーガット症候群」のために提案されている食習慣変更のうちの一部(低FODMAPダイエットなど)は、過敏性腸症候群(IBS)に悩む人たちにとっては一助となる場合があるが、その作用は「透過しやすくなる」腸の存在とは無関係であると考えられる。

概して、食事から何らかの食品を排除することは、栄養失調に繋がりがねないことから、厳密な必要性があり(セリアック病患者など)かつ医師の助言の下で行われる場合を除いては、良い考えではない。

助言及び更なる情報

診断が確定しない症状を有する人たちには、NHS の「医学的に説明困難な身体症状」に関する記事が役立つかもしれない。このような不可解な身体症状は意外にも多く、英国の全ての開業医受診理由の 5 分の 1 を占める。

特定の健康状態と診断されている場合は、NHS の「症状別治療法 A から Z」というサイトを勧める。このサイトでは、治療法に関して、エビデンスに基づく信頼できる情報が得られる。

概して、「ホリスティック」及び「ナチュラルヘルス」関連のウェブサイトは、懐疑的な視点で閲覧すべきである。そこにある情報が正しい又は科学的事実やエビデンスに基づいているとの思い込みは禁物である。

(以上)