

Cosmetics, personal care products and medicines Some of the questions asked by people with food allergies

The purpose of this fact sheet

The general rule for managing food allergies is to read ingredient labels carefully every time you shop for food. But food ingredients, such as oils, can also turn up in non-food products including cosmetics, toiletries, medicines and bath and massage oils. It is likely that many people with food allergies pay less attention to these products than to their food.

This fact sheet is designed to address some of the questions which you and your family may have on this subject. It is intended to focus on **food ingredients** that are present in the above products and is therefore aimed at people with food allergies. It does not cover sensitivity to chemicals (such as the paraphenylenediamine found in hair dye).

Throughout the text you will see brief medical references given in brackets. More complete references are published towards the end of this fact sheet.

The products covered by this fact sheet

This fact sheet focuses on:

- Cosmetics (i.e. make-up)
- Personal care products and toiletries such as soaps, lotions, deodorants, hair products and dental products etc. These are covered in the section headed 'cosmetics' as legally they are within the definition of cosmetic products
- Medicines – both those that are prescribed and those sold over the counter at a pharmacy or shop.
- Massage oils
- Condoms

Are the products covered by this fact sheet likely to trigger allergic reactions?

From the start it is important to point out that little is known about the allergenic risk from food ingredients that are present in the products covered by this fact sheet. As far as many products are concerned, that risk may be small or non-existent because the ingredients used (for example, oils produced from nuts) may have been highly refined to the point that most of the proteins present have been removed. It is the proteins in a food that cause allergic reactions. A 1997 study involving 60 people with peanut allergy concluded that refined peanut oil posed no risk to any of those who took part (Hourihane et al, 1997).

However, because there are still unanswered questions about the risk to people with food allergies from cosmetics, medicines etc, we must give very general advice. That advice is to play safe. If you are allergic to a food, and know it is present in a non-food product, avoid using that product. This is a matter that should ideally be discussed with an allergy specialist.

Many of the products covered by this fact sheet are for external use and are not meant to be eaten or drunk, but remember that a small child could ingest them accidentally. Furthermore a product like shower gel can get into the eyes and an aerosolised spray into the lungs.

Contact with the skin

The risk of allergy is not limited to internal exposure. External contact with cosmetics and topical medicines such as skin creams can lead to immediate skin reactions such as hives (urticaria) and delayed skin reactions such as dermatitis. For example, our medical advisers know of a case where an eye shadow that contained fish scales (to make the wearer's eyelids glitter) caused severe facial dermatitis in a teenage girl with a known fish allergy. We advise that if you react to any product in this way, stop using it and consult your doctor.

General observations on food ingredients in non-food products

Our own informal shopping surveys have shown that food ingredients are used frequently in the kinds of products covered by this fact sheet.

A few examples include:

- Arachis oil (peanut oil) in some brands of vitamins, ear drops, creams for nappy rash and eye pencils. Also often used in intramuscular injections
- Almond oil in some shampoos, shower gels, bath oils, skin moisturiser and fabric softeners
- Milk or egg derivatives in some shampoos
- Avocado in certain skin moisturisers
- Sesame seed oil in at least one hay fever spray; also in some hand/face moisturisers and soaps
- Ingredients derived from fruits in some face products and lip balms
- Lupin derivatives in certain cosmetics
- Macadamia nut oil in a hair straightening balm

As stated above, the risk in some cases may be very small or non-existent if the food-derived ingredients such as peanut, soybean or sunflower oils have been highly processed. However, in some cases the risk may be real. There have been reports of anaphylaxis following the ingestion of crude, commercial sesame oil in quantities as low as one to five millilitres by people with sesame seed allergy (Morriset et al 2003). The likely explanation is the **unrefined** nature of the sesame oil. **Refined** oils are likely to pose little or no risk.

Because uncertainty remains with regard to many products, our advice is to play safe and avoid any product that contains a food ingredient to which you are allergic.

Cosmetics

The key message is: Always read the label whenever you buy any cosmetic product.

The European Cosmetics Regulation states that all cosmetic products sold in the EU, which includes the UK, must display a complete list of ingredients. The regulation is not limited to those products that you will find in the cosmetics department of your local store, such as lipsticks and other make-up. It covers a wider range of personal care products including:

- Creams, emulsions, lotions, gels and oils for the skin
- Soaps, bath preparations and shampoos
- Deodorants and anti-perspirants
- Perfumes, toilet waters and Eau de Cologne
- Hair care products, hair tints and bleaches
- Cleansing and conditioning products
- Shaving products
- Dental care products
- Sun protection products
- Self-tanning (fake tan) products
- Anti-wrinkle products

The above list is just a sample of the products included under the regulation.

Terms used on the label of cosmetics: The Cosmetics Regulation states that the names used for ingredients of cosmetics must be standardised so they can be understood in every EU country. This is called the INCI name system and is also used in the USA and elsewhere. Therefore you will see common food-based ingredients used in cosmetics given a Latin name. For example, where an ingredient is derived from Brazil nuts, you will see the name *Bertholletia excelsa*. A list of agreed names for many common food ingredients is covered later on in this fact sheet.

Colours are not declared by either the E number or the common name but by their Colour Index (CI) Number.

The notation +/- indicates that the ingredient may or may not be present – the cosmetic equivalent of 'may contain.'

Medicines

Always read the list of ingredients.

When you are prescribed a medicine or buy a medicine over the counter from your pharmacy or from a shop, you should see the active ingredients listed on the outer packaging.

Ingredients known as excipients are also added to the active drug to give it suitable consistency or palatability. Some medicines will list all excipients on the outer packaging along with the active ingredients. Others will list the excipients only on the patient information leaflet found inside the box. You can check the list of excipients for any drug that is licensed for use in the UK by visiting www.medicines.org.uk.

We advise that people with food allergies who are seeking to avoid specific ingredients should question the pharmacist. This is part of the pharmacist's job and most are pleased to be asked. Moreover, the pharmacist will in many cases be able to source the same medicine but free from the troublesome ingredient. In very occasional cases, where no suitable formulation can be found, a special formulation may need to be prepared and the local pharmacist should be able to contact a pharmaceutical company that specialises in the preparation of excipient-free formulations.

If a drug contains certain allergenic ingredients – such as peanut, sesame, soya, wheat or colouring agents – there may be extra information on the outer packaging. For example, this may say "Patients with wheat allergy should not take this medicine." Even if there is no additional information, we still advise people to check and read the patient information leaflet.

It is important to remember that even if your GP has details of your allergy on record, you should still personally check the ingredients of any medicine you are prescribed. We have heard the occasional report of a GP mistakenly prescribing a medicine containing the patient's problem allergen.

Terms used on the label of medicines: You are likely to see the normal English terms for food ingredients when they appear in medicines.

Peanut allergy and soya allergy

You may have noticed that the packaging of medicines containing peanut oil warns people with soya allergy as well as peanut allergy to avoid such products. Similarly people with peanut allergy are warned to avoid taking medicines containing soya. This advice comes from the Government's Medicines and Healthcare products Regulatory Agency (MHRA) and is based on the fact that some people with peanut allergy are allergic to soya and vice versa (due to a process known as cross-reactivity).

It could be argued that the MHRA is taking an over-cautious, blanket approach. It is well-known that most people with peanut allergy can eat soya quite safely, and vice versa. Even so, as this guidance comes from an official Government body, it would be unwise for us to advise people to disregard these warning statements.

If you are unsure what to do, we strongly suggest you discuss this matter with your GP or allergy specialist, who can help you to weigh up the risk and severity of your allergy against the benefit of the treatment.

Massage oils

Most massage oils are classed as cosmetics. However, some products may make aromatherapy claims or claim to be treating medical conditions. These should be classed as medicines. Pure essential oils will not be classed as cosmetic products but will be “general products” covered by the European General Products Safety Directive. Despite these apparent complications, you should check to see if the product does have a full list of ingredients declared on the label and, if it doesn't, make further enquiries of the manufacturer.

Condoms

Casein, a milk protein, is used in the manufacture of some condoms. We can find nothing in the medical literature on this subject but know of one anecdotal report of someone with milk allergy who suffered a severe localised allergic reaction to a condom during sex. This information came from the doctor who examined the patient. In our view, it's possible that there is some risk from condoms for people with severe milk allergy.

According to condom manufacturers, some condoms are produced without the use of milk protein in their production. Some organisations (such as the Vegan Society) produce details on their website of condoms that are free from any animal products including milk protein. However, because such information requires constant vigilance and possible revisions, our policy is to advise people who are concerned about this to contact individual condom manufacturers to find out which brands are milk-free.

Latin translations

As stated above, the names used for ingredients of cosmetics must be standardised so they can be identified in every country that is part of the EU. You will see common food-based ingredients used in cosmetics given a Latin name. The following list shows Latin names for some food ingredients. Where a food has more than one species, you may see variations in the Latin terms (for example, we have provided Latin terms for three varieties of hazelnut).

Almond (sweet): Prunus dulcis. You may also see variations such as prunus amygdalus dulcis

Almond (bitter): Prunus amara. You may also see variations such as prunus amygdalus amara

Avocado: Persea gratissima.

Apricot: Prunus armeniaca

Banana: Musa sapientum. Variations may include musa paradisiacal, musa acuminata, musa balbisiana, musa basjoo or musa nana

Brazil: Bertholletia excelsa

Cashew: Anacardium occidentale

Celery: Apium graveolens

Chestnut: Castanea sativa. Variations may include castanea sylva or castanea crenata

Chickpea: Cicer arietinum

Coconut: Cocus nucifera

Corn (maize): Zea mays

Egg: Ovum.

Fish liver oil: Piscum iecur.

Hazelnut: Corylus rostrata. Variations may include corylus americana or corylus avellana

Kiwi fruit: Actinidia chinensis. Variations may include actinidia deliciosa

Lupin: Lupinus albus. Variations may include lupinus luteus, lupinus texensis or lupinus subcarnosus

Macadamia: Macadamia ternifolia. Variations may include macadamia integrifolia

Maize (corn): Zea mays

Milk: Lac.

Mustard: Brassica alba. Variations may include brassica nigra or brassica juncea

Oat: Avena sativa. Variations may include avena strigosa

Peach: Prunus persica

Peanut: Arachis hypogaea

Pistachio: Pistacia vera. Variations may include pistacia manshurica

Rice: Oryza sativa

Rye: Secale cereale

Sesame: Sesamum indicum

Soya: Glycine soja. Variations may include glycine max

Sunflower: Helianthus annuus

Walnut: Juglans regia. Variations include juglans nigra

Wheat: Triticum vulgare

Whey Protein: Lactis proteinum

Sensitisation

Sensitisation is the beginning of the process in which someone becomes allergic to a food or some other substance. It occurs when the person's immune system mistakenly registers that food or substance as a "threat". A subsequent exposure results in an allergic reaction occurring (although not in every case).

Whilst people may become sensitised to a food by eating it, it may also be possible to become sensitised through skin contact, especially if the skin has been broken. For example, it is possible that applying preparations containing arachis oil (peanut oil) to the skin of infants with rashes could place them at increased risk of developing peanut allergy (Lack et al 2003). Those most at risk of becoming sensitised are children with allergy in the immediate family. Oat allergy (Boussault et al) and wheat protein allergy (Codreanu et al 2006) have also been reported to arise in this way.

However, it must never be forgotten that skin conditions such as eczema need appropriate care and the regular application of an emollient skin cream or lotion is a mainstay of treatment. A doctor's advice should be sought on the best treatment in your own particular case. Preparations are available that do not include food-derived oils.

The need for research

As stated above, little is known about the allergenic risk from food ingredients that are present in the products covered by this fact sheet. The main problem is in not knowing whether oils used in such products have been refined to the point that they will not cause an allergic reaction. We would encourage the pharmaceutical industry and cosmetics industry to initiate and support research so that this matter can be addressed. Once this has been done, accurate labelling will help people with food allergies to make informed choices.

General tips

- Treat all products covered by this fact sheet just as you would for a food product – that is, read ingredient lists thoroughly.
- If small packages do not have an ingredient label, ask the store staff to provide you with information.
- Carry a magnifying glass. Some products carry ingredient lists in miniscule type.
- If you have already bought the product, call the manufacturer's number to find out about the ingredients.
- If you react to any product, do not use it again. There have been cases of severe food allergy caused by repeated exposures to food proteins present in cosmetics (Laurière M et al 2006).
- Make friends with your pharmacist. Remind him/her about your allergy (or your child's) every time you buy or are prescribed a product.
- You can check the list of excipients of a tablet, capsule or medicine yourself by visiting the website www.medicines.org.uk.
- Be cautious about trying "testers" in shops.
- Ask your hairdresser about ingredients in any new shampoo, conditioner, styling gel, or mousse he or she wishes to use.
- Some products labelled and marketed with the term "hypoallergenic" can be misleading; some may contain food proteins. Check the ingredient labels of these products.

References

The UK Medicines Compendium – www.medicines.org.uk

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For further information about cosmetic products, their ingredients and allergies, see www.thefactsabout.co.uk a website from the CTPA for consumers.

Reviewers

The content of this fact sheet has been Peer Reviewed by **Dr Michael Perkin**, Senior Lecturer & Honorary Consultant in Paediatric Allergy, St Thomas' Hospital, London; **Dr Anna Murphy**, Consultant Respiratory Pharmacist, University Hospitals of Leicester NHS Trust, Glenfield Hospital, Leicester; and **Dr Michael Radcliffe**, Consultant in Allergy Medicine, University College London Hospitals NHS Foundation Trust. **Dr Joanna Lukawska**, Clinical Research Fellow and Specialist Registrar in Allergy at the Department of Asthma, Allergy and Respiratory Science at Guy's and St Thomas' Hospital, London, approved a change to the content on condoms in August 2014.

We would also like to acknowledge the help given by Stephen Kirk, MSc, CBiol, ERT, Cosmetic Product Safety Manager for Boots plc and by the Cosmetic, Toiletry & Perfumery Association (CTPA) in the production of this fact sheet.

Disclosures

Dr Michael Radcliffe is vice-chair of the Anaphylaxis Campaign's clinical and scientific advisory panel; Dr Anna Murphy is a member of the panel.

Disclaimer – The information provided in this Factsheet is given in good faith. Every effort has been taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for



Supporting people at risk of severe allergies

good medical advice provided by a medical professional. We cannot take responsibility for the accuracy of websites referred to in this fact sheet.

About the Anaphylaxis Campaign: Supporting people with severe allergies

The Anaphylaxis Campaign is the only UK wide charity to exclusively meet the needs of the growing numbers of people at risk from severe allergic reactions (anaphylaxis) by providing information and support relating to foods and other triggers such as latex, drugs and insect stings. Our focus is on medical facts, food labelling, risk reduction and allergen management. The Campaign offers tailored services for individual, clinical professional and corporate members.

Visit our website www.anaphylaxis.org.uk and follow us on Twitter [@Anaphylaxiscoms](https://twitter.com/Anaphylaxiscoms).