Coconut Allergy
ASCIA Education Resources Patient Information

KEYWORDS
coconut allergy, coconut, coconut oil, food allergy, nuts

Allergic reactions to eating coconut have been reported, but are relatively rare. By contrast, contact allergic dermatitis to coconut products is more common. Sensitisation to coconut pollen has been reported.

Coconut is a useful food
The coconut palm tree is a native of the tropics. The fruit of the palm is known as the “coconut”. The coconut has great economic value, as the outer fibrous husk can be used to make ropes and mats, the white inner flesh can be eaten, and the milk drunk. Coconut-derived products are also added to many foods including cakes, some chocolates and lollies, and are used in some infant formulae. They are also an ingredient of some cosmetics, shampoos and soaps.

Allergies occur to peanut, tree nuts and coconut
Allergic reactions to peanut and tree nuts are relatively common, estimated to occur currently in around 1/100 infants and 1/200 - 1/500 adults. By contrast, allergic reactions to coconut are relatively rare. Few cases of allergic reactions from eating coconut products have been reported at the time of writing (April 2006), including one case of severe stomach upset in a baby fed coconut-containing infant formula. The other 6 cases reported have been those of serious allergic reactions (anaphylaxis). Of these cases, some have been found to be allergic to tree nuts like walnut and hazelnut as well as coconut, and allergic responses have been found to similar proteins present in both types of foods, a concept known as “cross-reactivity”. Others have been allergic to coconut only.

Food proteins trigger food allergy
The substances triggering allergic reactions to food are proteins. If a person is allergic to one protein present in one food only (eg. coconut, dairy products, hen’s egg), then an allergic reaction can only occur if they eat that one food.

Allergies may occur to one or many foods
The proteins that trigger allergies to egg, dairy products or peanuts are very different. A person allergic to proteins in dairy products may have problems with dairy products, but not necessarily other foods. People allergic to dairy/cow’s milk products and egg are considered to be unlucky enough to be allergic to multiple proteins within different foods, not the same protein in different foods.
Cross-reactivity is a difficult concept

Cross-reactivity means that a similar protein is present in a range of different foods. If the same protein is present in several foods, then that person may have allergic reactions to any food containing that protein. Examples of cross-reactivity include people allergic to similar proteins present in hen’s egg and duck eggs; or cow’s milk and goat’s milk; or cashew nut and pistachio nut.

Cross-reactivity is not easy to predict

In the same way that different animals have hearts, lungs and muscles, very different looking foods may have similar structures and proteins. Unfortunately, it is sometimes difficult to predict whether a person will be allergic to one unique protein allergen present in one food only, or several similar “cross-reactive” proteins present in multiple foods, simply based on whether foods have a similar appearance.

For example, peanut and tree nuts (like almond, brazil nut or cashew) make look and taste much the same, yet the proteins present in peanuts are generally considered to be very different to those in tree nuts like almonds, cashews and so on. That means that one can be allergic to peanut only, tree nuts only, or any combination of peanut, a few tree nuts, or anything that looks or tastes like a peanut or tree nut.

Coconut allergy is relatively rare

Coconut is a very different plant from peanut or tree nuts. The presence of the letters “nut” does not mean that coco-“nut” will trigger an allergic reaction in people allergic to peanut or tree nuts. The relative frequency of allergy to peanut and tree nuts (relatively common) compared to those allergic to coconut (very rare) would suggest that the risk of coconut allergy in an individual known to be allergic to peanut or tree nuts is very low, so much so that allergy testing to coconut is not considered as “routine”. At the present time there are no published studies examining how often people allergic to peanut or tree nuts are also allergic to coconut. The limited knowledge that we have would suggest that the risk is very low. So what to do if you are worried?

Allergy testing to coconut

At the time of writing, commercial extracts of coconut are not currently available for skin prick testing in Australia or New Zealand, and currently no single “coconut allergen” is available for blood allergy testing either. If you have concerns about the risk of allergic reactions to other foods (like coconut or other foods), ask your allergy specialist about whether skin prick allergy testing or blood allergy testing (eg. ImmunoCap) testing to coconut has become available.

Contact dermatitis to coconut is more common than food allergy

Coconut-derived products (such as coconut diethanolamide, cocamide sulphate, cocamide DEA, CDEA) can cause contact allergic dermatitis, present in cosmetics including some hair shampoos, moisturisers, soaps, cleansers and hand washing liquids. As with any contact dermatitis, an itchy blistering rash may arise a day or two after contact with the allergen, and take several days to resolve. If contact dermatitis to coconut products is suspected, then patch testing is an appropriate method for diagnosis.

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