



Australian Government
Department of Industry,
Innovation and Science

Business
Entrepreneurs' Programme



Food Allergen Series: Food Allergen Fundamentals

**Presented by
The Allergen Bureau**

Hosted by the Department of Industry, Innovation and Science Entrepreneurs' Programme in collaboration with Food Innovation Australia Limited.



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Food Allergen Fundamentals - Introduction

Georgina Christensen, Allergen Bureau

| | |
|--|---|
| Introduction | AusIndustry |
| Welcome to webinar & Introduction | Georgina Christensen The Allergen Bureau |
| Who is the Allergen Bureau | Karen Robinson The Allergen Bureau Pepsico |
| Industry Perspective on Allergens | |
| Perspective from an allergic patient/carers What is a food allergy? | Maria Said Allergy & Anaphylaxis Australia Inc |
| Mandatory requirements for the food industry for the declaration of food allergens | Lisa Warren & Georgina Christensen The Allergen Bureau |
| Overview of Allergen Management | Robin Sherlock Sherlock Food Allergen Risk Management |



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Food Allergy & Allergen Management Webinars

Webinar 1 – Food allergen fundamentals

Thursday 22nd March, 2018

Webinar 2 – Industry best practice for the identification, control and management of food allergens

Thursday 19th April 2018

Webinar 3 - Product labelling & recalls

Thursday 24th May 2018







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Allergen Bureau Introduction

Karen Robinson, Allergen Bureau Director
PepsiCo ANZ Quality and Food Safety Manager



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Who is the Allergen Bureau?

- The Allergen Bureau is the **peak industry body** representing food industry allergen management in Australia and New Zealand
- The Allergen Bureau is a **membership based** organisation established to provide food industry with rapid responses to questions about allergen risk management in food ingredients and manufactured foods
- Established 2005, **pre-competitive**, 'not-for-profit', industry volunteer Board

Full Members





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The Allergen Bureau – Our Vision and Mission

Vision

- The Allergen Bureau is a globally recognised and supported industry organisation promoting best practice food industry allergen management, risk review and consistent labelling to facilitate informed consumer choice

Mission

- To facilitate a globally accepted, consistent, science-based approach to food allergen risk assessment, management and communication that:
 - guides **industry** best practice
 - assists allergen sensitive **consumers** to make informed choices based on label information



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The Allergen Bureau: What do we do?

- Working Groups
- Allergen Management & VITAL[®] Program Resources
- Website allergenbureau.net
- Develop and maintain VITAL[®] Online
- Free Helpline: General Information & Technical Support
- Facilitate VITAL[®] Scientific Expert Panel

An Industry Perspective

Karen Robinson, Allergen Bureau Director
PepsiCo ANZ Quality and Food Safety Manager

The way we were.....

- Allergens weren't on the radar, no labelling requirements
- Industry awareness – managed by Quality team
- Limited training and understanding

Current Industry Status

- Allergen management forms part of manufacturing and encompasses production scheduling, sanitation schedules and NPD
- Allergen awareness is now part of our everyday dialogue, from the CEO down to factory shop floor.
- Allergen Training is now multi-functional

The Why's

- Mandatory
- Threat of a recall
- Consumer Insights
- Responsible manufacturer

Holistic Allergen Management

- Part of the site Food Safety Plan and is everyone's responsibility NOT just QC/QA
- Training across all levels of the manufacturing site
- Understanding People movements
- Storage of Raw Materials
- Internal auditing of processes
- NPD



Allergy & Anaphylaxis
Australia

Your trusted charity for allergy support

The Reality of Food Allergy & Anaphylaxis

Maria Said, CEO, Allergy & Anaphylaxis Australia

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We all need food to survive – it's not an option.

People have a right to be able to access food that is safe.

Food labels must give accurate information on content – people's lives depend on it.

Adverse Reactions to Foods

Food intolerance

Food allergy

Food poisoning

Food aversion

30 - 40% of population say they are allergic

Coeliac Disease

Wheat Intolerance

Wheat Allergy



Allergy – immune response

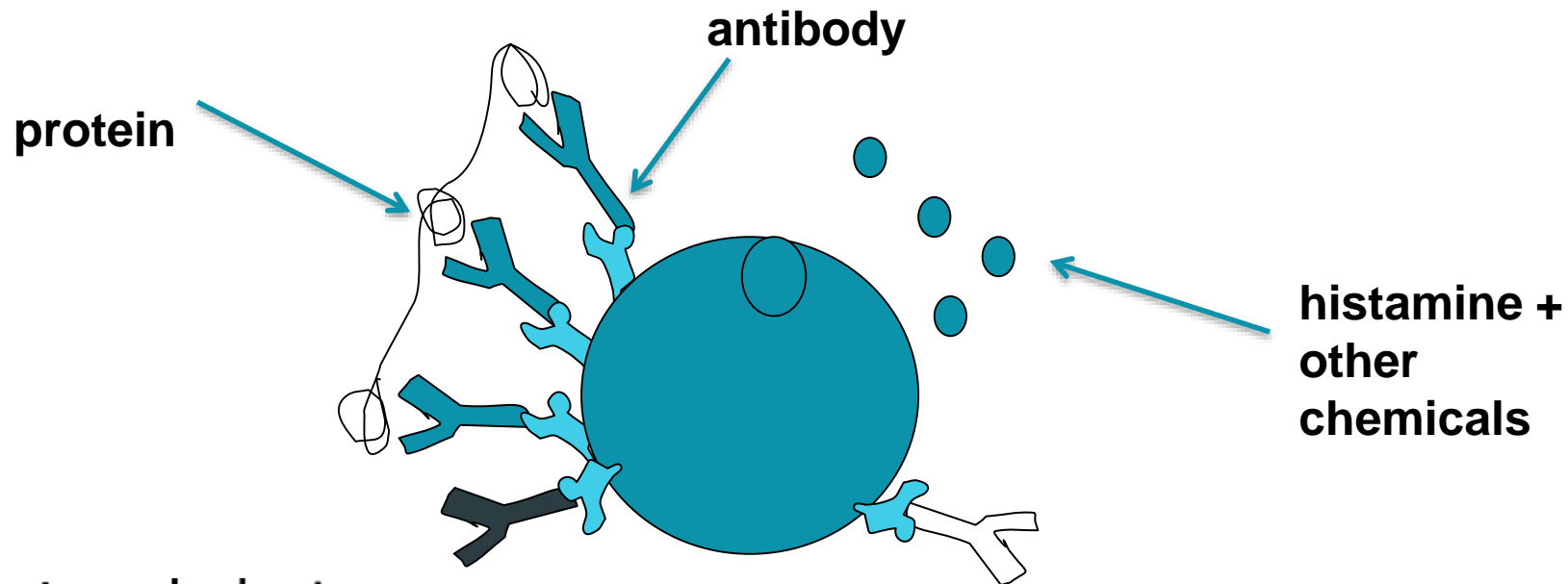
Mild Moderate Severe

Immune system reacts to a substance that for most, is harmless. (pollen, dust mite, insect, food, cockroach, animal dander/saliva)

Body develops antibodies which recognise foreign substances. Not all with antibodies will develop symptoms

Food Allergy – immune response

Food protein binds to the antibodies and triggers release of mediators (e.g. histamine) causing symptoms



90% of food allergic reactions are triggered by:

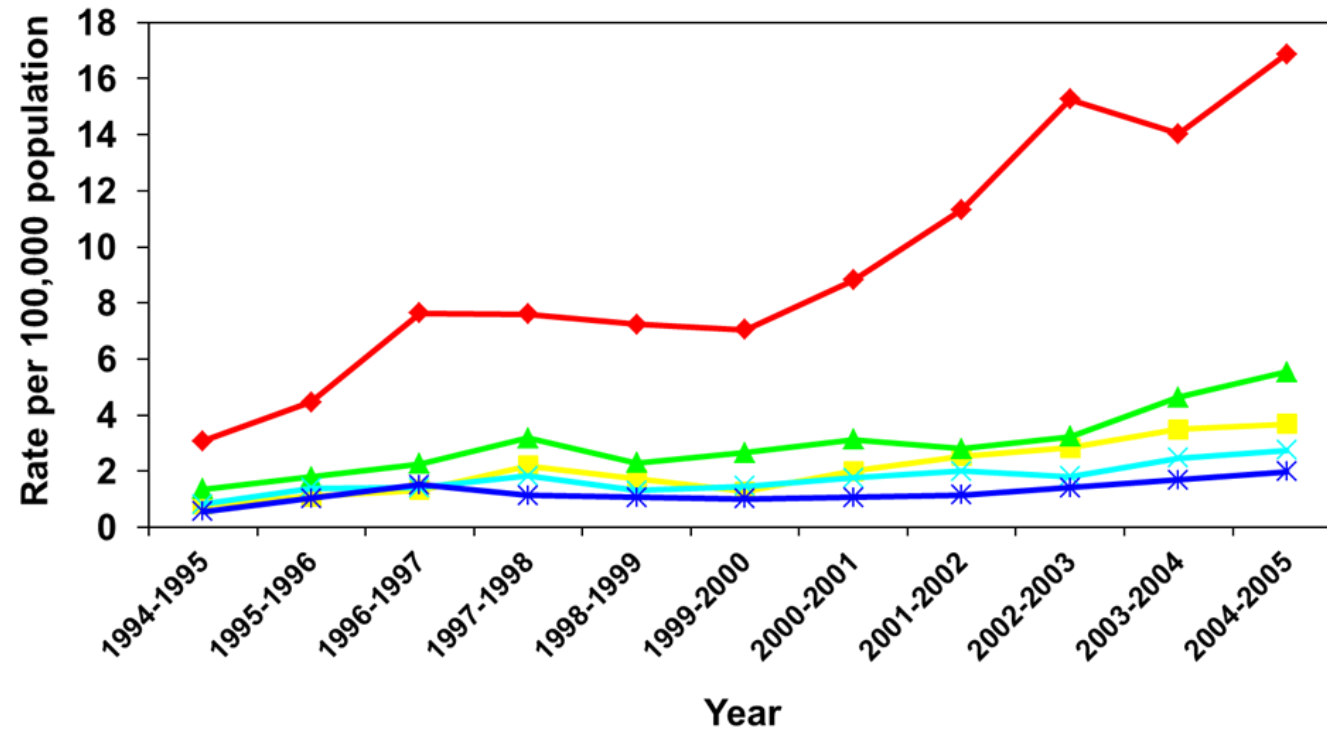
Egg
Peanut
Tree nuts
Soy
Sesame
Wheat
Fish
Shellfish
Lupin



BUT – any food can trigger allergic reaction
- including anaphylaxis

Emergency Hospitalisations

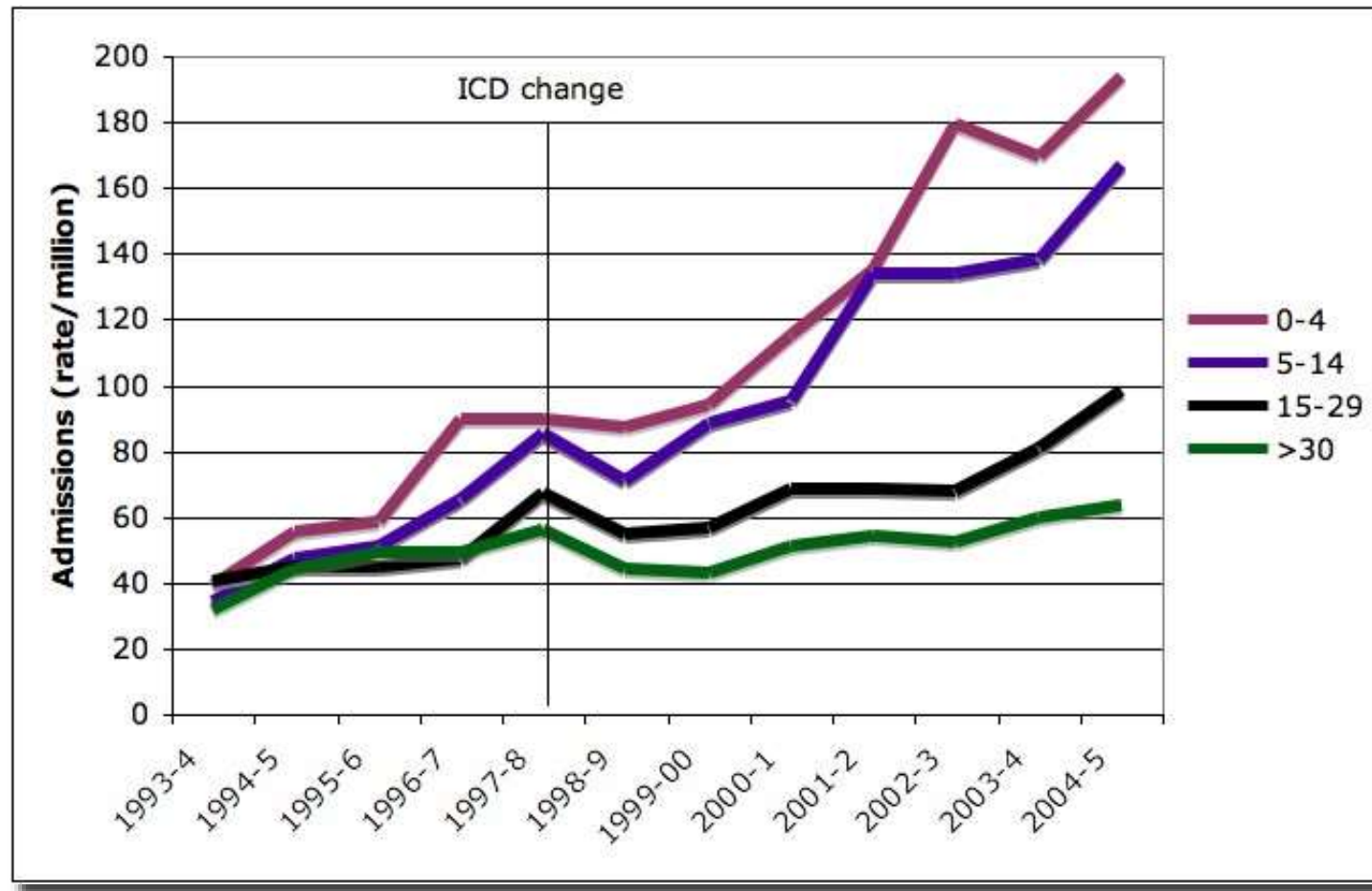
Food Anaphylaxis Admissions in Australia



—◆— 0 to 4 —■— 5 to 14 —▲— 15 to 34 —×— 35 to 64 —*— 65+

Liew WK, Williamson E, Tang MLK. JACI.2009

Increase in rates of food allergy



Why?




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What is anaphylaxis?

Anaphylaxis is the most severe form of allergic reaction



| Skin | Gastrointestinal | Respiratory | Cardiovascular |
|-------------------|------------------|--|-------------------------------------|
| Urticarial rash | Vomiting | Difficulty/noisy breathing | Hypotension |
| Erythema/flushing | Abdominal pain | Swelling of tongue | Persistent dizziness or collapse |
| Angioedema | | Swelling tightness in throat | Pale and floppy (in young children) |
| | | Difficulty talking and/or hoarse voice | |
| | | Wheeze or persistent cough | |





ASCIA Action Plan for Anaphylaxis (emergency response plan)

EpiPen®



**Allergy & Anaphylaxis
Australia**

Your trusted charity for allergy support

ascia
australian society of clinical immunology and allergy
www.allergy.org.au

**ACTION PLAN FOR
Anaphylaxis**

For EpiPen® adrenaline (epinephrine) autoinjectors

Name: _____
Date of birth: _____

Photo

Confirmed allergens: _____

Family/emergency contact name(s): _____

Work Ph: _____
Home Ph: _____
Mobile Ph: _____
Plan prepared by medical or nurse practitioner: _____

I hereby authorise medications specified on this plan to be administered according to the plan

Signed: _____
Date: _____
Action Plan due for review: _____

How to give EpiPen®

1 Form fist around EpiPen® and PULL OFF BLUE SAFETY RELEASE

2 Hold leg still and PLACE ORANGE END against outer mid-thigh (with or without clothing)

3 PUSH DOWN HARD until a click is heard or felt and hold in place for 3 seconds REMOVE EpiPen®

All EpiPen® should be held in place for 3 seconds regardless of instructions on device label

© ASCIA 2017 This plan was developed as a medical document that can only be completed and signed by the patient's medical or nurse practitioner and cannot be altered without their permission

SIGNS OF MILD TO MODERATE ALLERGIC REACTION

- Swelling of lips, face, eyes
- Hives or welts
- Tingling mouth
- Abdominal pain, vomiting (these are signs of anaphylaxis for insect allergy)

ACTION FOR MILD TO MODERATE ALLERGIC REACTION

- For insect allergy - flick out sting if visible
- For tick allergy - freeze dry tick and allow to drop off
- Stay with person and call for help
- Locate EpiPen® or EpiPen® Jr adrenaline autoinjector
- Give other medications (if prescribed).....
- Phone family/emergency contact

Mild to moderate allergic reactions (such as hives or swelling) may not always occur before anaphylaxis

WATCH FOR ANY ONE OF THE FOLLOWING SIGNS OF ANAPHYLAXIS (SEVERE ALLERGIC REACTION)

- Difficult/noisy breathing
- Swelling of tongue
- Swelling/tightness in throat
- Wheeze or persistent cough
- Difficulty talking and/or hoarse voice
- Persistent dizziness or collapse
- Pale and floppy (young children)

ACTION FOR ANAPHYLAXIS

- Lay person flat - do NOT allow them to stand or walk
 - If unconscious, place in recovery position
 - If breathing is difficult allow them to sit
- Give EpiPen® or EpiPen® Jr adrenaline autoinjector
- Phone ambulance - 000 (AU) or 111 (NZ)
- Phone family/emergency contact
- Further adrenaline doses may be given if no response after 5 minutes
- Transfer person to hospital for at least 4 hours of observation

If in doubt give adrenaline autoinjector

Commence CPR at any time if person is unresponsive and not breathing normally

ALWAYS give adrenaline autoinjector FIRST, and then asthma reliever puffer if someone with known asthma and allergy to food, insects or medication has **SUDDEN BREATHING DIFFICULTY** (including wheeze, persistent cough or hoarse voice) even if there are no skin symptoms

Asthma reliever medication prescribed: ☐ Y ☐ N

Currently, there is no cure; avoidance of the food is critical.

Education is the key to management

Food allergy greatly impacts quality of life

Greater impact than juvenile diabetes, or rheumatoid arthritis.

Can be immediately life-threatening.

Severity of a reaction is unpredictable.

Socialising (family, work)

Shopping and food labels

Eating out

Cooking from scratch

Travel

Holidays

Cost

What we say to individuals with food allergy

Food allergy is your responsibility

Strict avoidance of the allergen

Always read ingredient labels or ask about food content

Forward plan

Disclose allergy clearly and ask questions when eating out

Always have emergency action plan and adrenaline autoinjector access

No adrenaline – NO EAT!

Report reactions to food products/in food service

Causes of accidental exposure

Not reading/understanding ingredient label

Not listening to customer/poor communication with other staff

Not enquiring about food content

Sharing food

Inaccurate labelling



Causes of accidental exposure

Cross contamination from one food to another in food service areas.
This can occur through storage, preparation, cooking or serving

- utensils or equipment
- re-used cooking oils
- work surfaces

Packaged food caused death

Ronak Warty

10 years

Died Dec 2013



Narkena Natural Coconut Drink

Imported from Taiwan

Food Allergy

Impacts on quality of life

Always read labels

Always disclose your allergy

No adrenaline = No eat



IMPORTANT: Even after all your checks, **ALWAYS** be prepared for an allergic reaction.

Management of food allergy is a challenge.
Everyone has a role to play in reducing risk.



Thank you

Email: coordinator@allergyfacts.org.au

Phone: 1300 728 000



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Mandatory requirements for the declaration of food allergens

Georgina Christensen, Allergen Bureau

Lisa Warren, Allergen Bureau

Food Standards Australia New Zealand (FSANZ)

Australia New Zealand Food Standards Code

- ~ Chapter 1 – Introduction and standards that apply to all foods
- ~ Chapter 2 – Food Standards
- ~ Chapter 3 – Food safety standards (Australia only)
- ~ Chapter 4 – Primary production standards (Australia only)
- ~ Schedules

Allergen information must be provided either

- ~ attached to the package/food (bear a label)
- ~ upon request or accompany the food
- ~ in connection with the food

Food Standards Code Standard 1.2.1



Foods and Substances that Require Mandatory Declaration

- ~ cereals containing gluten (wheat, rye, barley, oats, spelt, their hybridised strains) (incl. exemption)
- ~ crustacea
- ~ egg
- ~ fish (incl. exemption)
- ~ milk (incl. exemption)
- ~ peanuts
- ~ soybeans (incl. exemption)
- ~ sesame seeds
- ~ tree nuts (not coconut)
- ~ lupin
- ~ added sulphites (10mg/kg or more)



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Foods and Substances may be present as

- ~ ingredient or as an ingredient of a compound ingredient; or
- ~ a substance used as a food additive, or an ingredient or component of such a substance; or
- ~ a substance used as a processing aid, or an ingredient or component of such a substance; or food



Allergen information usually declared in ingredient list

INGREDIENTS

Wheat Flour, Sugar, Butter, Egg,
Raising Agents (339,341,450),
Flavour

Best Practice - show allergens using common terms

INGREDIENTS

Wheat Flour, Sugar, Butter (Milk),
Egg, Raising Agents (339,341,450),
Flavour

clearly shows
that butter is a
product of milk



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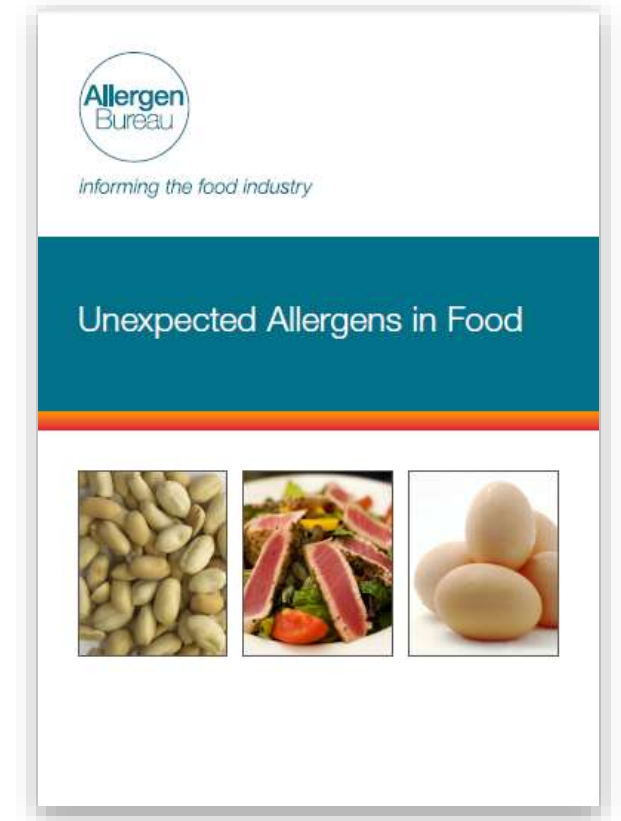
Additional requirements

- ~ Cereals containing gluten
- ~ Tree nuts
- ~ Crustacea

The specific name must be declared

What allergens are in my products?

- ~ food allergens can be present in many food ingredients and are not always obvious from their name
- ~ this guide identifies basic food ingredients and food additives that may contain or be derived from an allergen





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Allergen labelling exemptions

- ~ Cereals containing gluten present in beer & spirits
- ~ Glucose syrups made from wheat starch
- ~ Alcohol distilled from wheat or whey
- ~ Isinglass as a clarifying agent in beer or wine
- ~ Soybean oil that is degummed, neutralised, bleached, & deodorised
- ~ Tocopherols or phytosterols derived from soybeans



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'Free' claims

- ~ Blanket claims such as 'No Allergens' are not helpful
- ~ Free claims must be true 100% of the time
- ~ Free claims require substantiation & a high standard of validation
- ~ Criteria for Gluten Free & Lactose Free in Schedule 4 of the Code

Mandatory and voluntary information

Ingredient List (mandatory)
Bolding (voluntary)

Allergen Summary Statement
(voluntary)

Precautionary Statement
(voluntary)

INGREDIENTS

Wheat Flour, Sugar, Butter (**Milk**), **Egg**,
Raising Agents (339,341,450), Flavour

Contains cereals containing gluten, milk, egg

May be present: almond



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Summary

- ~ Allergen status of all foods needs to be labelled, displayed or provided upon request
- ~ Understand the allergens in your ingredients regardless of where you are in the supply chain
- ~ Declare allergens in the ingredient list using simple language

A supporting document which contains links to more information will be available after this webinar

Allergen Management – An Introduction

Rob Sherlock : Director

SHERLOCK FOOD ALLERGEN RISK MANAGEMENT



We know the why

Obligation

Reputation

Public Health Consequences

Allergen Management produces the best possible outcome for all

Industry Guidance

Key messages for Manufacturers & Industry

Implement an effective allergen management plan.

Train staff in food allergen risks, management and communication.

Provide clear and accurate information on the allergen status of your product.

Food manufacturers have a responsibility to manage the unintentional presence of food allergens.

<http://www.foodstandards.gov.au/consumer/foodallergies/foodallergenportal/Pages/allergenInfoForIndustry.aspx>

Why a specialised approach?

Microbial and chemical control assist allergen control but are not specifically designed to provide allergen control and remove the allergen.

Most recent recalls were perfectly acceptable from a chemical, microbial and foreign object point of view.

Sanitising does not remove protein.

Environmental microbial or hygiene monitoring give a good indication of cleaning but an all clear on the micro result does not mean that effective allergen control is in place.

The How



Allergen Management Plan (AMP)

Systematic assessment to identify and control allergens.

Needs to consider all elements from incoming ingredients to finished product.

Document all allergens (ingredients sub ingredients, packaging).

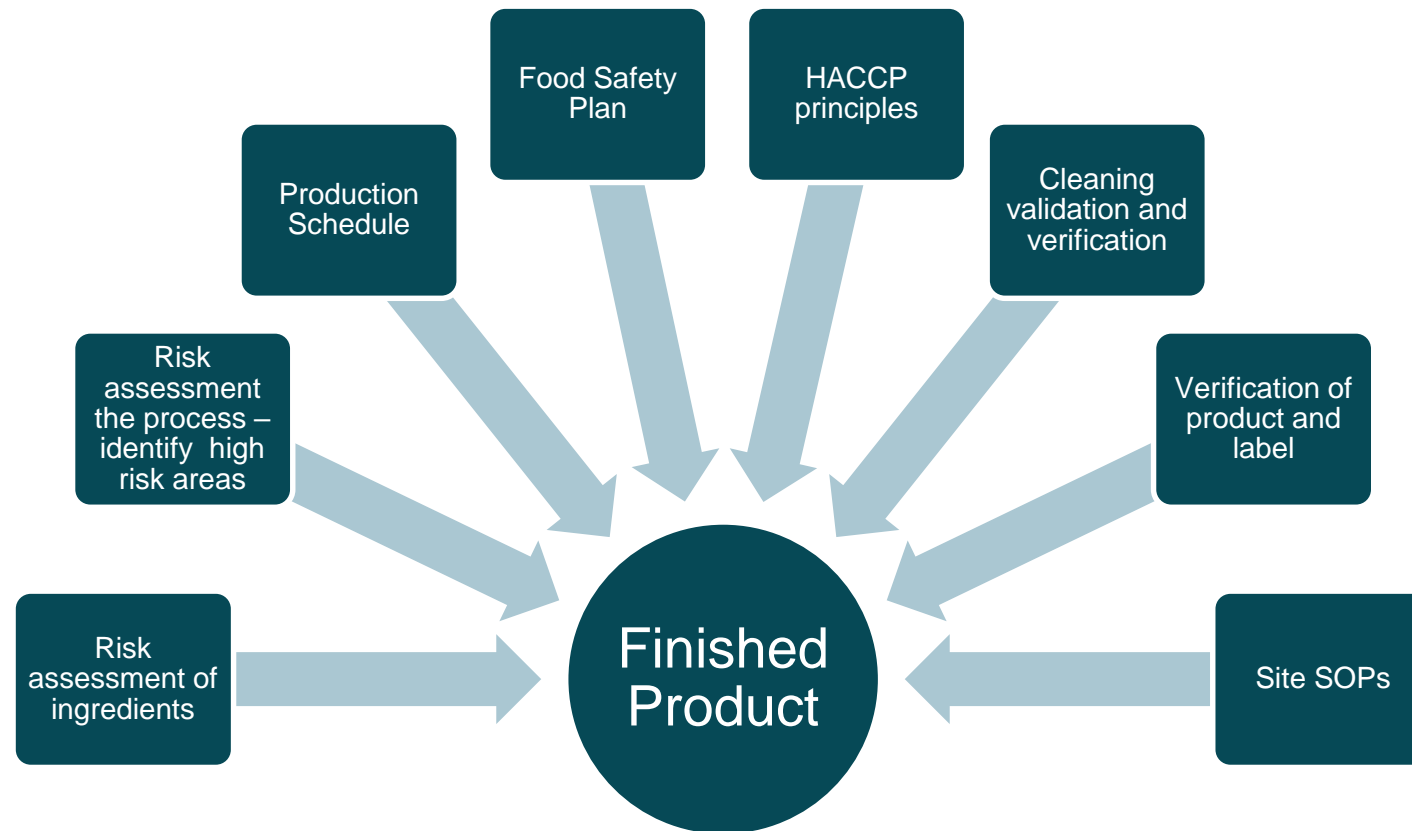
Identify all processes and equipment impacted.

Rate the relevant risk and identify preventative controls.

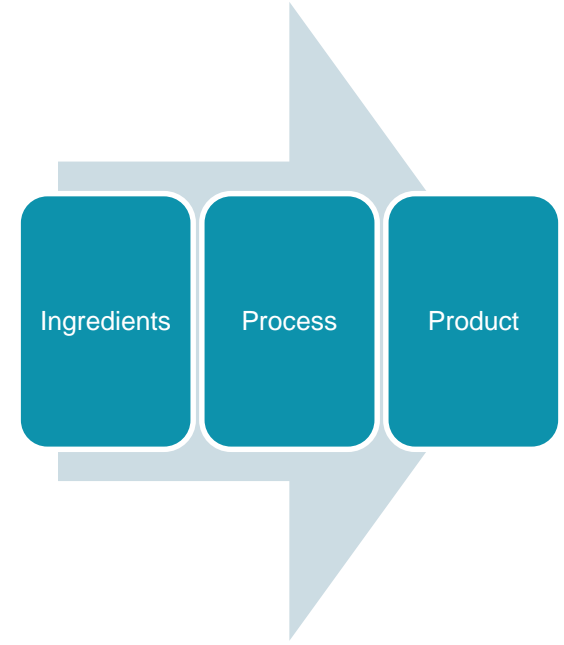
Validate the effectiveness of the controls and verify as part of quality program.

Should sit as part of a HACCP plan and should be reviewed annually as a minimum.

Tools and Resources - Theory into Practise



The How



Start with what you have and document as you go.

Examine your site GMP policies and procedure, look at the SOPs, your HACCP plan or Food Safety Plan.

All of the above form part of your allergen management program and assist with allergen control

Look at raw material specifications, cleaning, production schedules and current critical controls –these form part of the AMP – call them out and document them.

Allergens and a HACCP approach

Application of principles of HACCP to the allergen issue requires a rethink of basic concepts.

Nature of allergens is such that traditional approach like temperature control and sanitising are not effective.

Shift the perspective.



HACCP for allergens

Ingredients and Process are the risk

1. Approved Supplier program
2. Raw Material control
3. Use segregation and scheduling with effective cleaning
4. Training
5. Labelling

Validate the controls are effective and verify that they are in place. This is a crucial step in your food safety plan and HACCP program to confirm that control measures are effective and on going

Change Control

Significant change should prompt a review of the risk and controls

Labels tell the story for the consumer

Accurate and easily understood

Regulations require the declaration of all allergens listed in FSANZ 1.2.3-4

Provide information regarding the possible presence of a major allergen, based on risk assessment

Incorrect labels are a major cause of recalls

Use existing quality checks to assist in compliance

Line clearance and label control are critical

Labels enable allergic consumers to make a risk assessment

Right Product - Right Pack



Risk Assessment of cross contact risk and VITAL[®] 2

a risk based methodology for food producers

assesses the impact of allergen cross contact

uses an action level grid to determine if the presence of residual protein from allergenic substances through cross contact requires precautionary labelling

aims to avoid indiscriminate use of precautionary labelling

preserve a valuable risk management tool

minimise risk to allergic consumers

industry best practise

The VITAL[®] Program must be part of an established allergen management plan which includes a HACCP based food safety program that is adapted for allergen control

Back to Basics

As members of the food industry we are required to provide safe food to all consumers.

Allergic consumers need to be able to choose food with confidence.

Allergen management is a key component of producing and providing safe food.

Allergen management can be built into existing programs.

The key is to understand **your** process and what affects it.

Conclusion

Understand your raw materials and production process.

Control the production of both allergen and non-allergen containing product.

Train your staff and equip them to manage issues.

Have confidence in your controls, confirm they in place and effective.

Label product appropriately in a way that is clear and accurate.

Keep records, maintain traceability.

Have consistent information and language across the entire site.

Keep it simple – complex isn't necessary.

Thank you

Presenter : Rob Sherlock

Director , Sherlock Food Allergen Risk Management Pty Ltd

Providing risk reviews, analytical advice, consultative services & training in food allergen risk management

Allergen Bureau Technical Advisor - Analysis

robsherlock7361@gmail.com



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Thank you!

Webinar 2 – Industry best practice for the identification, control and management of food allergens

Thursday 19th April 2018

Webinar 3 - Product labelling & recalls

Thursday 24th May 2018



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