

# Salmonella spp. and Eggs

## Food Safety Advice for Caterers

**Salmonellosis is a serious type of food poisoning caused by salmonellae bacteria. Symptoms usually include diarrhoea, fever, vomiting and abdominal cramps, but in severe cases it can be fatal. A number of food poisoning outbreaks caused by *Salmonella* spp. in catering establishments have been associated with the consumption of fresh shell eggs and products made from fresh eggs.**

### Hen Eggs

*Salmonella* Enteritidis is the strain of *Salmonella* spp. normally associated with hen eggs, although other strains such as *Salmonella* Typhimurium have also been linked to contamination of eggs. Infected hens can lay infected eggs; therefore, it is important that caterers receive assurance from their suppliers that the hen eggs they buy come from salmonellae controlled flocks i.e. those that are subjected to routine testing for *Salmonella* spp. where no salmonellae have been detected. Chicken farms in Ireland are tested and monitored for *Salmonella* spp. and any flocks with confirmed *Salmonella* Enteritidis or *Salmonella* Typhimurium infections are slaughtered and effective cleansing and disinfection of the premises must be carried out, including safe disposal of manure and litter. However, not all hen eggs on the market originate in Ireland.

Hen eggs produced under the Egg Quality Assurance Scheme, set up by Bord Bia and the Irish Egg Association, in 1999, are subject to enhanced *Salmonella* spp. controls in addition to the regulatory requirements and are ink-jet marked with the Quality Assurance logo.

### Catering

Although the risk of *Salmonella* spp. in hen eggs produced in Ireland is low, there are increased risks in commercial premises where large volumes of fresh shell hen eggs are used and handled.

Hen eggs used in dishes that are not cooked thoroughly, pose a higher risk of salmonellae as they do not receive the high cooking temperatures required to kill any *Salmonella* spp. that may be present.

Such high-risk dishes include tiramisu, scrambled egg, omelette, quiche, some pastry products, mousse, homemade mayonnaise, homemade ice-cream, hollandaise or similar sauces. Caterers using fresh shell hen eggs in egg dishes that are not cooked thoroughly should use the safest eggs available i.e. eggs produced under the Bord Bia Egg Quality Assurance Scheme or pasteurised liquid egg.

# Salmonella spp. and Eggs

## Food Safety Advice for Caterers

### Duck Eggs

*Salmonella* spp. is also associated with duck eggs in Ireland. An outbreak of Salmonellosis in Ireland in 2010 was associated with the consumption of undercooked duck eggs or consumption of raw foods made with duck eggs and was due to *Salmonella* Typhimurium DT8.

### Catering

The danger posed by *Salmonella* spp. is removed by thoroughly cooking duck eggs or foods/dishes made from duck eggs, and by preventing cross-contamination between any raw duck eggs or products containing raw duck eggs and ready-to-eat foods.

The Egg Quality Assurance Scheme in place for hen eggs does not apply to duck eggs; therefore, duck eggs will not carry the quality assurance logo. Duck eggs are also not included in the egg marketing regulations and therefore, they do not have to carry markings on the egg to indicate the 'best-before' date or traceability information. However, this information should be included on the packaging or on the accompanying documentation if there is no packaging.

Caterers must be particularly strict in adhering to best hygiene practices when sourcing and handling duck eggs and only serve foods made with duck eggs that have been thoroughly cooked prior to consumption.

Duck eggs should not be used for high-risk dishes including tiramisu, homemade mayonnaise, homemade ice-cream, scrambled egg, omelette, quiche, icing, some pastry products, mousse, hollandaise or similar sauces.

The Food Safety Authority of Ireland aims to protect public health and to ensure that food sold in Ireland complies with legal requirements or recognised codes of good practice. Caterers have a duty of care to their customers and a responsibility to ensure the food being served is safe to eat.

**In the interest of consumer protection; we recommend you source the safest eggs available for your customers and adhere to the following advice:**

#### Hen Eggs:

- Eggs and egg dishes must **always** be cooked thoroughly for vulnerable groups, such as the frail elderly, the sick, infants, small children and pregnant women
- Caterers using fresh shell hen eggs in egg dishes that are not cooked thoroughly should use the safest eggs available i.e. eggs produced under the Bord Bia Egg Quality Assurance Scheme or pasteurised liquid egg
- There should be no advance preparation or holding of raw egg mixtures
- Raw egg desserts and sauces held at room temperature in buffets can allow bacteria to multiply with potentially serious consequences for consumers. This practice should not be permitted
- All staff **must** wash their hands before and after handling raw eggs
- Broken eggs and eggshells should be disposed of immediately and not retained in the same tray as unbroken eggs
- Always clean and disinfect surfaces after whisking/beating raw egg mixtures and ensure that uncovered ready-to-eat foods are not in the vicinity during whisking/beating

# Salmonella spp. and Eggs

## Food Safety Advice for Caterers

### Duck Eggs:

- Duck eggs should **never** be eaten raw
- Only eat duck eggs that have been thoroughly cooked, until both the white and yolk are **solid**
- If you are preparing a dish that contains duck eggs, ensure that you have cooked it thoroughly before eating
- Do not use raw duck eggs in the preparation of products that contain raw or lightly cooked egg, such as homemade mayonnaise, tiramisu, ice-cream, icing or hollandaise sauce
- When using duck eggs in cooking or baking, **never** taste the raw mixture
- After handling raw duck eggs, **always** wash your hands thoroughly
- Ensure all utensils and preparation surfaces that have been in contact with raw duck eggs are washed thoroughly before being re-used
- Store duck eggs in the fridge away from ready-to-eat foods
- Always clean and disinfect surfaces after whisking/beating raw egg mixtures and ensure that uncovered ready-to-eat foods are not in the vicinity during whisking/beating

**All eggs are safe to eat once cooked thoroughly, until both the white and yolk are solid.**