BC Centre for Disease Control
An agency of the Provincial Health Services Authority

Fact Sheet: Egg Yolk Parmesan
Guidelines for Safe Preparation

Guidelines for Safe Preparation of Egg Yolk Parmesan

Egg yolk parmesan is a novel and popular food used as a non-dairy cheese substitute. Egg yolk parmesan may also be described as salt cured egg yolks, cured egg yolks, or candied egg yolks. This guideline provides best practices for curing egg yolks to minimize risks of food borne illness.

top: before curing in salt/sugar mix

bottom: yolks after curing for 5 days

(Photos: Dianna Vuu, with permission)

How eggs are cured: Individual egg yolks are separated from the whites and placed into a bed of salt, sugar and spices. Yolks are covered with the mixture and cured (rested) until sufficiently dehydrated. Recipes vary in the times and temperatures for the cure step, in the ingredients, and inclusion (or not) of a heat treatment step. These impact the safety of the product and its susceptibility to pathogens such as *Salmonella* and *Staphylococcus*.

All egg yolk recipes must include these critical control points:

- cure eggs under refrigerated temperatures of 4°C or less,
- cure eggs for a minimum of 24 hours*, and
- include a cook step before or after curing (unless pasteurized shell eggs are used).

**Note: 24 hours is applicable to large grade A chicken egg yolk. Larger eggs or eggs of different species may require longer or shorter curing times depending on water contents.*

-----Preparation details on next page-----

Common Questions

- **Can I reuse my salt?**
  - Heat the salt in the oven to dehydrate before using again or use a new batch of salt. Only reuse the salt once. Pathogens are unlikely to grow on the salt but there is the potential for biofilms to form after repeated uses of the salt.
- **Why can't I cure for less than 24 hours?**
  - The minimum curing time of 24 hours has been validated to dehydrate the yolks to a water activity of <0.92 (Vuu, 2020). This is adequate for preventing growth of *Salmonella*. Times of less than 24 hours may not achieve this value.
- **Can I cure for less than 24 hours to make soft spreadable yolks?**
  - No, the minimum time you should cure your egg yolks is 24 hours. At 24 hours the texture of the egg yolk is still soft and spreadable.
- **Do I have to cure the egg yolks in the refrigerator?**
  - Yes, refrigeration is required for the first 24 hours to inhibit pathogens. Without temperature control, pathogens which may be present on or in the egg yolk (like *Salmonella*), will be able to grow before the yolks cure and water activity drops.
- **Why is a cook step required if the water activity drops enough that eggs are considered not potentially hazardous?**
  - Raw shell eggs may contain harmful bacteria such as *Salmonella* spp. and *Staphylococcus aureus*. Dehydrating the yolks in salt will prevent further growth of bacteria but will not kill those that may already be present in the yolk. *S. aureus* can also be found in the noses and on the hands of between 10 to 30% of healthy people. Cooking kills bacteria and helps to harden the egg for a more grateable product.

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Material choice

- □ Use graded, fresh eggs ★
- □ Use clean curing medium ★
- □ Use dried herbs and spices from approved sources ★

★ Control Points

CCP Critical Control Points

Separation of egg yolk

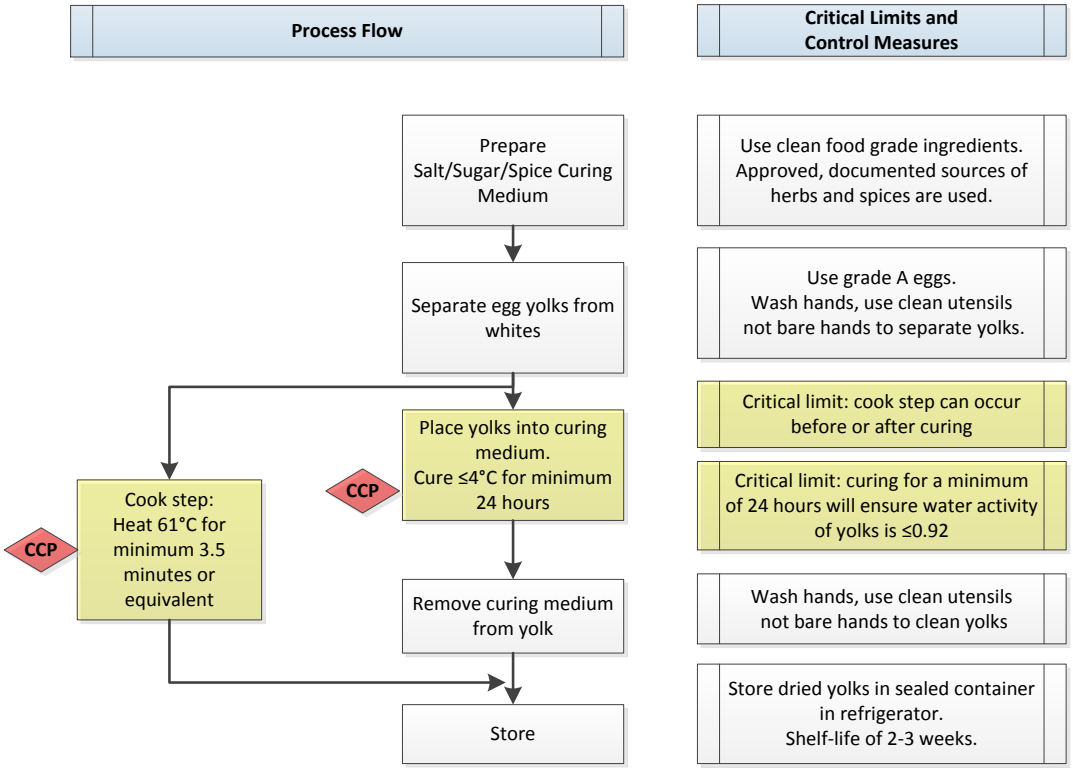
- □ Wash hands before handling eggs
- □ Use clean and sanitized utensils (not hands) to separate eggs to prevent cross contamination

Cure and Cook steps

- □ Cure the egg yolks in a refrigerator at or below 4°C for a minimum of 24 hours CCP
- □ Heat to inactivate *Salmonella* bacteria at 61°C for a minimum of 3.5 minutes (or equivalent) CCP

Removal and additional steps

- □ Wash hands before and after handling the egg yolks ★
- □ Remove excess salt with clean, sanitized brush or clean potable water



References

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