

## Physical Hazards and Controls

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## Types of Hazards

- 3 types of hazards:
  - **Physical hazard** is defined as a foreign object that is capable of harming a consumer.
  - **Chemical hazard** is defined as a toxic substance or compound that will render a product unsafe for consumption.
  - **Biological hazard** may include parasitic agents and microbiological agents that results in food borne disease.

## Physical Hazards

- ❑ Food borne outbreaks caused by physical hazards usually involve relatively few consumers
- ❑ Typically result in personal injuries such as a broken tooth, lacerations or choking, or other usually non-life-threatening problem

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## Food Safety vs. Aesthetics

- ❑ Potential physical hazards are foreign objects or extraneous matter capable of causing injury such as glass, metal, and rocks
- ❑ Aesthetic contaminants such as insect fragments, hair and sand typically do not cause injury to consumers
- ❑ Compliance Policy Guide (CPG) Section 555.425 “Foods-Adulteration Involving Hard or Sharp Foreign Objects” ready-to-eat is adulterated if it contains a hard or sharp foreign object that measures 7mm to 25 mm in length

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## Physical Hazards

- Ways in which the hazard is introduced into the facility
  - Contaminated raw ingredients
  - Poorly designed or maintained facilities and equipment
  - Improper employee practices
  - Faulty production procedures

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## Types of Physical Hazards

- Metal
  - Ferrous vs. non-ferrous
- Bone
- Stones
- Wood
- Plastic

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## **Minimizing Physical Hazards at Raw Material Receiving**

- ❑ Material specifications
- ❑ Letter of guarantee
- ❑ Vendor inspection and certification
- ❑ Product inspection

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## **Equipment Used to Detect or Remove Foreign Materials**

- ❑ Magnets/metal detectors
- ❑ Screens/sifters
- ❑ Aspirators

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## Minimizing Potential Physical Hazards in the Facility

Attention to cGMPs will insure that the facility is not a source of physical hazards.

- Properly protected light fixtures
- Appropriately designed equipment
- Adequate maintenance and inspection programs

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## Minimizing Physical Hazards Processes/Procedures

- Identify inappropriate practices and operational areas during hazard analysis

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## Potential Physical Hazards and Controls

### Potential Hazard

- ❑ Glass from light fixture
- ❑ Metal fragments from equipment
- ❑ Wood pallets

### Control

- ❑ Shatter-proof bulb, shields
- ❑ Inspection, preventive maintenance, metal detector, magnet
- ❑ Eliminate from processing area

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## Summary

- ❑ Physical hazards exist in every facility and can be present in the incoming ingredients
- ❑ HACCP teams must ask themselves:
  - What is the likelihood of the hazard?
  - Do we already have something in place to control the hazard?

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