

**Conference for Food Protection
2016 Issue Form**

Issue: 2016 I-037

Council Recommendation:	Accepted as Submitted _____	Accepted as Amended _____	No Action _____
Delegate Action:	Accepted _____	Rejected _____	

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Issue History:

This is a brand new Issue.

Title:

Amend Food Code - Additional Requirements for Consumer Advisories

Issue you would like the Conference to consider:

Amending Section 3-603.11 of the 2013 FDA Food Code to include training and verbal communication of risk.

Public Health Significance:

An *E. coli* O157:H7 outbreak occurred in May 2014, in which 12 became ill and 7 were hospitalized after eating hamburgers in restaurants in 4 different states (CDC, 2014). Initially, the Michigan Department of Health reported that undercooked ground beef eaten at several different restaurants was a suspected source (WILX News, 2014). A recall of 1.8 million pounds of ground beef products suspected of contamination by *E. coli* O157:H7 was subsequently issued (CDC, 2014; Erb, 2014). Interviews with the sickened individuals revealed that eight of the twelve had ordered their hamburgers cooked rare or medium rare (Andrews, 2015). Four of the five illnesses reported in Ohio were traced to a restaurant chain. Epidemiological investigation revealed that all of the cases were tied to one strain of *E. coli* O157:H7, but could not reveal whether the risk of consuming undercooked hamburgers had been communicated with consumers (Andrews, 2015; CDC, 2014). The outbreak highlights several issues. First, it reveals the riskiness of undercooked hamburgers and the restaurant culture of ordering undercooked hamburgers. It also shows that using terms such as "medium rare" are not effective in describing how well-cooked a hamburger will be.

Measuring the temperature of a hamburger with a thermometer is the only reliable method to determine that it has reached a safe temperature; color is not a reliable indicator of doneness. Hamburgers can brown at temperatures well below the recommended endpoint temperature (Hague *et al.*, 1994, Lyon *et al.*, 2000). Premature browning is related to the oxidative state of the meat (Hunt *et al.*, 1999). The form of myoglobin at the time of cooking directly correlated to the visual and instrumental analysis results; hamburger patties that contained deoxymyoglobin (DMb) had more pink color when cooked than those that

contained oxymyoglobin (OMb) and metmyoglobin (MMb) (Hunt *et al*, 1999). Numerous other factors can contribute to the color of ground beef. Cooking pre-frozen hamburger patties results in more premature browning than allowing patties to thaw before cooking (Hunt *et al*, 1999). pH played a direct role in the thermostability of the different myoglobin forms; as pH increased, OMb and MMb became more stable (Hunt *et al*, 1999). Hamburger containing less fat takes longer to cook than hamburgers with a higher fat content (Troutt *et al.*, 1992). Meat from older carcasses showed a higher rate of premature browning than meat taken from younger carcasses (Marksberry, 1990).

Chefs and other culinary specialists cite methods of determining doneness other than temperature, such as color and touch (Levine and Chapman, 2014). A local food writer and chef writes about cooking hamburgers, "With practice, you can check doneness by touch: a little give for medium and just barely firm for well-done. Until you get good enough at that, though, the best bet is to peek. Make a small slit in a thicker part of the burger. The interior will be light pink for medium or just browned all the way through, but still juicy, for well-done." (Washington Post, 2007).

Recommended Solution: The Conference recommends...:

that a letter be sent to the FDA recommending the 2013 Food Code be amended to include clarifying language for written procedures as follows (new language is underlined):

3-603.11 Consumption of Animal Foods that are Raw, Undercooked, or Not Otherwise Processed to Eliminate Pathogens.

(A) Except as specified in ¶ 3-401.11(C) and Subparagraph 3-401.11(D)(4) and under ¶ 3-801.11(C), if an animal FOOD such as beef, EGGS, FISH, lamb, milk, pork, POULTRY, or shellfish is served or sold raw, undercooked, or without otherwise being processed to eliminate pathogens, either in READY-TO-EAT form or as an ingredient in another READY-TO-EAT FOOD, the PERMIT HOLDER shall inform CONSUMERS of the significantly increased RISK of consuming such FOODS by way of a DISCLOSURE and REMINDER, as specified in ¶¶ (B) and (C) of this section using brochures, deli case or menu advisories, label statements, table tents, placards, or other effective written means, supplemented with verbal confirmation. Pf

Those who are communicating to consumers must be trained in the hazards and risks associated with consuming raw or undercooked animal foods not otherwise processed to eliminate hazards and how to convey risk messages verbally to consumers.

(B) DISCLOSURE shall include:

(1) A description of the animal-derived FOODS, such as "oysters on the half shell (raw oysters)," "raw-EGG Caesar salad," and "hamburgers (can be cooked to order)"; Pf or

(2) Identification of the animal-derived FOODS by asterisking them to a footnote that states that the items are served raw or undercooked, or contain (or may contain) raw or undercooked ingredients. Pf

(3) State there is a risk for foodborne illness associated with what they are ordering

(4) provide a safe temperature guideline so the consumer can request that temperature if desired, with a statement of how to significantly reduce risk (i.e., ordering cooked to above a certain endpoint temperature).

(5) State that color is not an indicator of doneness.

(C) REMINDER shall be conducted verbally include asterisking the animal-derived FOODS requiring DISCLOSURE to a footnote that states:

(1) Regarding the safety of these items, written information is available upon request; Pf

(2) Consuming raw or undercooked MEATS, POULTRY, seafood, shellfish, or EGGS may increase your RISK of foodborne illness;Pf or

(3) Consuming raw or undercooked MEATS, POULTRY, seafood, shellfish, or EGGS may increase your RISK of foodborne Pf illness, especially if you have certain medical conditions.

(4) The verbal statement must include that ordering /purchasing raw undercooked product increases risk of foodborne illness. All references to determining safety and doneness of a product should be made to temperature, not color or other indicators that are not reliable.

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Supporting Attachments:

- "Of course I know what I'm talking about: Assessment of Risk Communication a"

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