

Parts of a Scholarly Article

- **Publication:** Contains some citation information such as journal title, year, volume, and page number. In print it might be at the top or bottom of the first page. Online it could be in a sidebar.

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- **Title:** The title will often tell you the authors' research question(s).

Food Safety: Recommendations for Determining Doneness in Consumer Egg Dish Recipes and Measurement of Endpoint Temperatures When Recipes Are Followed

- **Authors and Affiliation:** The order of authors usually indicates how significant the contribution was. In some disciplines, like social sciences and humanities, the first author is considered the "lead author." In other disciplines, like engineering or chemistry, the last author is the "lead author." Most articles will also provide author affiliations, meaning they will list where those individuals work.

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- **Abstract:** The abstract is a short summary of what the article is about, including a brief statement about the results of the research.

Abstract: Many consumers do not follow recommended food safety practices for cooking egg dishes, such as pies, quiches, and casseroles, potentially leading to foodborne illnesses such as Salmonellosis. The United States Department of Agriculture (USDA) recommends cooking egg mixtures until the center reaches 71 °C (160 °F). The objectives of this study were to determine what endpoint temperature information consumers receive from egg dish recipes, and if recipes would lead to safe temperatures when followed. Egg dish recipes (n = 226) from 65 websites, 50 cookbooks, and nine magazine titles (multiple issues of each) were analyzed.

- **Keywords:** Assigned by the authors or the editors, these identify the topic and can help you in constructing a better search for more articles.

Keywords: consumer food safety; egg dishes; temperature recommendations

- **Introduction:** The introduction contains background on the topic or issue, and often contains past research that has been done that is relevant to the current study. This helps you understand the broader context and conversation that is important for the article you're reading.

1. Introduction

Foodborne illness continues to be a public concern, with large social and economic tolls due to hospitalizations, loss of productivity, and death [1]. Many of these illnesses can be prevented through education and adherence to food safety recommendations, such as proper food handling, preparation, and storage [2]. One of the most common foodborne illnesses is Salmonella. Although there have been decreases in many other foodborne illnesses, Salmonella rates have remained steady [3]. The U.S. Food and Drug Administration (FDA) estimates around 142,000 illnesses each year are due to consumption of improperly prepared eggs that contain Salmonella [4], making eggs the principal risk factor for some strains of Salmonella [5,6]. European data suggests nearly 90,000 cases of foodborne illness related to Salmonella [7] and a British report specifically identifies undercooked egg dishes, eggs, and meat as the primary culprits [8]...

- **Methods:** The methods section will describe how the authors designed their research and what steps were taken to collect data.

2. Methods

Three recipes were chosen for testing the instructions, a lemon chess pie, a quiche, and an egg based casserole. Recipes were chosen to represent different types of recipes with varying difficulty and inclusions. The chess pie was the simplest with no inclusions, the quiche had some inclusions as well as cheese which could change the texture and browning appearance, and the casserole had large inclusions including chunks of bread. Ingredients for each recipe were purchased at a local supermarket. ...

- **Results:** The results will list the findings, and often include tables and charts with a lot of statistics.

3. Results

Table 2 shows the results of both cooking trials. The lemon pies reached 71 °C at an average of 28 min and were all still liquid in consistency. After the recommended cooking time of 50 min had passed, the pies had reached an average temperature of 92 °C and were all considered set in consistency. One of the pies (Pie 1) took longer to reach 71 °C than the other two pies and did not brown by the end of the cooking period despite a similar endpoint temperature to Pie 3. It is unclear why there was a difference in browning. ...

- **Discussion:** The discussion identifies limitations of the study, or what conclusions you *cannot* draw from what they found, and examines the meaning of results.

4. Discussion

Limitations to this study included the limited number of recipes that were prepared and observed. Also, this study did not attempt to inoculate recipe preparations and measure bacterial loads to determine what level of Salmonella would be destroyed through the cooking process. Some studies have shown that the ability of Salmonella to survive cooking in eggs can be dependent on factors such as pH, heat resistance, initial bacterial load, and previous exposure to environmental stress [24]. ...

- **Conclusion:** The conclusion articulates why the results are important and how they contribute to the field. They may also suggest areas for future research.

5. Conclusion

Efforts to educate consumers on egg safety should prioritize the safe handling of raw eggs and the reduction of cross contamination, rather than endpoint temperatures. Almost no recipes contain endpoint temperatures for egg dishes, despite the recommendations of various food safety organizations. Although this does seem like a potential concern in theory, the risk appears to be minimal in practice based on our results. We found that simple egg dishes did not solidify until well after they reached the recommended temperature of 71 °C, at which point the risk of foodborne illness would be minimal. ...

- **References:** The references is a list of resources that the authors used to inform their research and cited in their paper. This is a great place to find additional sources for your own research!

References

1. CDC Estimates of Foodborne Illness in the United States. Available online: <http://www.cdc.gov/foodborneburden/estimates-overview.html> (accessed on 15 August 2015).
2. Healthy People 2020. Available online: <https://www.healthypeople.gov/> (accessed on 12 December 2014).
3. Nyachuba, D.G. Foodborne illness: Is it on the rise? *Nutr. Rev.* 2010, *68*, 257–269.

