

# UNIVERSITY OF MINNESOTA

Twin Cities Campus

**Center for Infectious Disease Research and  
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Phil Minerich, PhD  
Vice President, Research and Development  
Hormel Foods, LLC  
2 Hormel Place  
Austin, MN 55912-4935

Dear Phil,

Thank you for your inquiry regarding the risk of spoiled food serving as a source for the transmission of foodborne pathogens.

First, as you know, spoiled food is characterized by changes in food odor, taste and texture in such a way as to make its consumption unacceptable. Individuals with impaired sensory faculties who may have limited taste or smell can still readily detect the significant changes in the texture of spoiled food. The group of bacteria that causes food to spoil create as a byproduct of their growth, chemicals which cause the changes in the food that we detect. These bacteria and their resultant chemicals do not cause disease in humans when such food is consumed in contrast to what we find with foodborne disease pathogens like *Escherichia coli*, Salmonella, Campylobacter. In addition, the growth of spoilage bacteria actually inhibits the growth of foodborne pathogens in food making such spoiled food a lower risk for causing "classic foodborne disease."

Second, in my more than 30 years of working at the forefront of foodborne disease outbreak investigations around the world, I am not aware of a single case of human illness associated with consumption of spoiled food. This includes among the elderly who may have impaired sensory faculties. Also, I was not able to identify any examples of illness associated with spoiled food after inquiring of my colleagues in public health who have extensive experience in foodborne disease outbreak investigations.

In conclusion, while the issue of food spoilage is an important one from the standpoint of food wastage, it does not pose a risk for foodborne disease transmission.

I hope this information is helpful. Please feel free to contact me if I can provide any additional clarification on this point.

Sincerely,



Michael T. Osterholm, PhD, MPH  
Director, Center for Infectious Disease Research and Policy  
Professor, School of Public Health  
Adjunct Professor, Medical School