

Activated Imbalance Between Peptidoglycan

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Short Communication

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ABSTRACT

The use of bicarbonate also has an effect on blood purification, especially since the person has acidosis after taking opium. Abstract Climate changes include alternations in one or more climate variables including temperature, precipitation, wind, and sunshine. These changes may impact the survival, reproduction, or distribution of disease pathogens and hosts, as well as the availability and means of their transmission environment. The health effects of such impacts tend to reveal as shifts in the geographic and seasonal patterns of human infectious diseases, and as changes in their outbreak frequency and severity. There are many pathways through which climate related factors may impact food safety including: changes in temperature and precipitation patterns, increased frequency and intensity of extreme weather events, ocean warming and acidification, and changes in the transport pathways of complex contaminants. Temperature increases and changes in rainfall patterns have an impact on the persistence and patterns of occurrence of bacteria, viruses, parasites and fungi and the patterns of their corresponding foodborne diseases. Extreme weather events such as floods and droughts lead to contamination of soil, agricultural lands, water and food and animal feed with pathogens, chemicals and other hazardous substances, originating from sewage, agriculture and industrial settings. Emergency situations after natural disasters are of special concern for water and food sanitation. Ocean warming and climate change related acidification and changes in ocean salinity and precipitation also affect the biochemical properties of water, along with water microflora.

INTRODUCTION

Bactericidal influences of silver ions on bacteriolyses of bacterial cell walls by activated imbalance between peptidoglycan (PGN) syntheses and PGN autolysins have been deeply considered against *Staphylococcus aureus* (*S. aureus*) and *Escherichia coli* (*E. coli*)^[1]. Bacteriolytic activity of *S. aureus* PGN cell wall by Ag⁺ ions is considered to be caused by inhibition of PGN elongation due to regulation of PGN synthetic transglycosylase (TG) or transpeptidase (TP) and enhancement of the activation of amidase of PGN autolysins. On the other hand, bacteriolysis and destruction of *E. coli* cell wall by Ag⁺ ions are regarded to be caused by the destruction of outer membrane structure due to degradative enzymes of lipoproteins at N- and C-terminals, and by the inhibition of PGN elongation owing to inactivation of PGN TP synthetic enzyme endopeptidase and enhancement of the activations of amidase, peptidase, and carboxypeptidase of PGN hydrolases and autolysins. Silver ions induced reactive oxygen species (ROS) generations such as O₂[•], H₂O₂, OH[•], OH⁻. Producing in bacterial cell wall occur and lead to oxidative stress and DNA. Fish has been widely used as an excellent source of animal protein and other nutrients^[2]. It functions to prevent human beings from variety of diseases all over the world. Through different processing methods, it is possible to achieve the keeping of quality and securing fish availability round the year. This paper reviews up-to-date research on effect of processing methods on nutritional and physico- chemical composition of fish. Additionally, effects of different fish processing methods (such as drying, smoking, freezing, cooking and canning) on chemical, physical and nutritional composition are presented^[3,4]. The most compositional constituents of fish which can be affected through processing methods are proteins, fats, vitamins, minerals and the sensory attributes such as colour, flavour, texture and general appearance. Changes of chemical composition resulted from processing methods can mainly be expressed as denaturation, coagulation, reduction of protein digestibility, oxidation and loss of vitamins. Heating protein fish can cause loss of nutritional value through amino acids destruction, protein denaturation and mallard reaction. Smoking is one of the processing methods which have an impact on fish protein denaturation that leads to changes in physical and chemical structure of protein and a reduction in the biological availability of protein^[5].

CONCLUSION

The major physical changes which occur on fish due to processing are changing texture (becomes hard and firm), change in color (the major first judgment detrimental factor) and yields. The extent of these changes depends on the temperature and time of treatment. All these changes (chemical, physical and nutritional) affect the final quality of fish and fishery products.

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