

Title: MICROBIOLOGICAL ASPECTS OF RAW READY-TO-EAT VEGETABLES

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Resume:

A search for a healthier diet has led the population to the consumption of salads and other foods in their raw form or with little processing. However, fails in hygiene processes can result in damage to health caused by the presence of pathogenic microorganisms. This study aims to evaluate the microbiological aspects of food of raw ready-to-eat salads in self-service restaurants of Rio de Janeiro city. The salads were varied and composed mainly of lettuce, watercress, grated carrot, cucumber, onion, among others. These were arranged in the distribution counter, without cover or cooling. The samples were using sterile plastic bags. The samples were analyzed for the following microbial groups: mesophilic bacteria on standard agar for enumeration; coliforms were counted by the most probable number (MPN) method in lactose brilliant green broth and EC broth for total and thermotolerant, respectively. The identification of *E. coli* was carried out by the MUG enzymatic method. *Salmonella* was screened by enrichment in 1% peptone water, followed by selective enrichment in tetrathionate broth and Mossel broth and plating on selective chromogenic agar for *Salmonella* and EMB agar. The identification of *Salmonella* strains was presumptively done in TSI and LIA agar, followed by serological confirmation. Among 22 salads analyzed, 19 were out of Brazilian microbiological standards because of high counts of thermotolerant coliforms. Among these, four samples were positive for *Salmonella*. Additional studies involving other restaurants are in progress. The presence of thermotolerant coliform and *Salmonella* suggest the possible presence of other enteric pathogens and the risk to which consumers are exposed. The results show the need to improve the control in to prevent pathogenic microorganism in raw vegetables, as well the lack of supervision by competent organs.

Keywords: Microbiological aspects, *Salmonella*, coliforms, vegetables

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