

**TITLE:** CONTAMINATION OF RAW KIBBEH AS IMPORTANT PUBLIC HEALTH ISSUE

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## **ABSTRACT**

Food safety is of major importance to not spread food borne diseases. The preparations of raw kibbeh require extensive manipulation which contributes to its contamination by pathogenic and deteriorating food microorganisms. The objective of this study was to evaluate the microbiological conditions of preparations of raw kibbeh ready for consumption in Uberlândia city. Ten (10) samples were collected at establishments that prepare raw kibbeh, during the period from September to November 2016. The count of mesophilic microorganisms was performed after cultivation in agar media; the count of total and fecal coliforms (45 °C) happened by the Most Probable Number technique; the presence of *Salmonella* spp., *Staphylococcus* coagulase positive, and other members of the Enterobacteriaceae family were detected using standard biochemical tests. Forty percent (40%) of the samples showed contamination by thermotolerant coliforms, with values above the recommended by the *DRC 12/2001*. *Staphylococcus* coagulase positive was not found in any of the samples, and 30% of them were contaminated by *Salmonella* spp., therefore, unsuitable for consumption. From the 10 samples analyzed 20 colonies were isolated with diverse phenotypic characteristics, and the major bacteria found were *Klebsiella*, *Enterobacter*, *Serratia liquefaciens* and *Hafnia alvei*. *Hafnia alvei* is considered an important deteriorating food microorganism and it was present in 80% of establishments assessed. These results indicate risks to food safety and public health which required the improvement of good manipulation practices, attempting to control the critical points during the preparation of this food and consequently minimize any source of contamination.

**Keywords:** *Salmonella* spp., *Staphylococcus* spp., food contamination, food safety.

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