

By [Michael Fielding](#) on 6/3/2013

There has been increasing concern about the emergence of multidrug-resistant foodborne pathogens from foods of animal origin, including poultry. A new study from Tennessee State University and published in the April issue of Poultry Science shows that raw beef and poultry are potential reservoirs of antibiotic-resistant pathogens.

The researchers found antibiotic-resistant Enterobacteriaceae in 249 samples of raw retail chicken/turkey parts (thigh, wings, breast and ground) and beef meat (ground and chunks).

Two hundred thirty-seven samples, 95.2 percent, tested positive for Enterobacteriaceae. The level of contamination with Enterobacteriaceae in raw meats ranged from 3.26 log<sub>10</sub> cfu/g (colony-forming units per gram) to 4.94 log<sub>10</sub> cfu/g.

Contamination was significantly greater in ground beef, beef chunks, ground chicken, chicken breast and turkey wings than ground turkey and chicken wings.

Resistance to antimicrobials was most frequent with erythromycin (100 percent), penicillin (89 percent) and ampicillin (65.8 percent). The researchers also found Salmonella, E. coli O157:H7, Morganella morganii, Yersinia enterocolitica and Vibrio parahaemolyticus to show resistance to multiple drugs.