

High levels of potentially harmful bacteria found in raw meat dog food products

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Many raw meat dog food products contain high levels of bacteria that pose potential health risks to both animals and people, finds research published online in *Vet Record*.

This is a particular issue for infants, the elderly, and those with poor immunity, warn the researchers.

A [raw meat](#)-based diet has become increasingly popular for [dogs](#) in recent years, because it is seen as a 'healthier' and more 'natural alternative' to widely available commercial products.

But, unlike commercial feeds, raw meat products are not heat treated or freeze dried to pasteurise their content.

To try and gauge the levels of bacteria in these products, the researchers took samples from 60 packs of raw meat products, bought from a range of stores within a 200 km radius of their laboratory between March and September 2017.

The products, which were all intended for dogs, contained at least one of: uncooked meat; and edible bones and/or organs from cattle, chicken, lamb, turkeys, pigs, ducks, reindeer or salmon. Some of the products also included vegetables, vegetable fibre, and minerals.

All the products, made by 10 different manufacturers, originated from Sweden, Norway, Finland, Germany or England.

The samples were analysed for bacteria that could potentially pose a health risk to animals and people: *Enterobacteriaceae species*; *Clostridium perfringens*, *Salmonella* and *Campylobacter* species.

All 60 samples contained Enterobacteriaceae species, which are indicators of faecal contamination and hygiene standards.

Levels varied widely among the different manufacturers, and in some cases, among the different products from the same manufacturer.

But 31 (52%) of the samples contained levels that exceeded the maximum threshold set by European Union (EU) regulations of 5000 bacteria per gram.

Most of the species identified are not known to cause infection, apart from *E coli*, which was found in about a third of the samples.

C perfringens, another marker of faecal contamination and hygiene standards, was found in 18 samples (30%); two of the samples exceeded the maximum limits set by Swedish guidelines.

Salmonella and *Campylobacter* are zoonotic species of bacteria-capable of passing from animals to people and causing infection. EU regulations don't permit *Salmonella* in any animal feed.

Salmonella species were found in 4 (7%) of the 60 samples, while *Campylobacter* species were found in three samples from three different manufacturers. This is a relatively low level, but possibly because *Campylobacter* species are very sensitive to freezing, say the researchers.

"It is most likely that *Campylobacter* was present in more samples before freezing, and that those samples in which *Campylobacter* was isolated contained very high levels of *Campylobacter* species before the freezing

process, as some managed to survive the freezer," they write.

The findings prompt the researchers to highlight the importance of careful storage, handling, and feeding of raw meat dog food products because of the [potential health risks](#) they pose.

They make several recommendations, designed to curb the risk of infection and antibiotic resistance. Raw meat dog food should be:

- Kept frozen until use, and thawed at 10 degrees C
- Kept separate from other food
- Handled with separate kitchen equipment or with equipment that is washed thoroughly after use

Good hygiene is essential, they emphasise: bacteria in the juices from raw meat dog food can splash and spread to other foods and surfaces, and dogs can transfer potentially harmful and/or antibiotic resistant bacteria by 'kissing' faces immediately after eating.

Dogs shouldn't be fed raw meat products while being treated with antibiotics as this could increase the risk of [antibiotic resistance](#), they say.

"Dogs in families with infants, elderly people or immunocompromised individuals should also not be fed [raw meat products], as these groups are more susceptible to infections," they warn.

British Veterinary Association Junior Vice President Daniella Dos Santos commented: "This research offers further compelling evidence to support vets' concerns about the potential animal and public health risks associated with feeding pets a raw meat-based diet.

"Bacteria such as *E coli* and *Salmonella* can cause significant

gastrointestinal disease in animals. Pets can also shed potentially harmful pathogens present in raw food into their environment, so there is a risk to owners both in handling the food and coming into contact with the animal. Pet owners who choose to feed a raw food diet should be aware of the potential [health risks](#) and take full precautions while storing and handling the food.

"BVA would also not recommend making a raw [food](#) diet at home without veterinary guidance due to the potential for nutritional deficiencies in homemade diets.

"We would advise any owner wanting to try a raw [meat](#)-based diet for their pet to first consult a veterinary surgeon."

More information: Occurrence of Salmonella, Campylobacter, Clostridium and Enterobacteriaceae in raw meat-based diets for dogs, [DOI: 10.1136/vr.105199](https://doi.org/10.1136/vr.105199)

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