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Quantitative assessment of the human and animal BSE risk posed by gelatine with respect to residual BSE risk

The report describes three methods of gelatine extraction from bones and hides and reports on a 2003 recommendation that the skull and vertebrae of bovine animals older than 12 months should not be used in the production of gelatine. In part, the current report is to decide whether or not such restrictions are justified on human health grounds.

Gelatine is used in foods (meat, dairy, confectionary and baking), pharmaceuticals, health products, cosmetics, animal feed and technical products (e.g. photographic film).

Weekly intake of bovine bone derived gelatine is most likely 7 g/week, a maximum value of 70 g per week and a mean value of 25.9 g/week. Infectivity of this material is reduced by the extraction process. Especially by the heat and pressure method.

The estimated species barrier is (in 2006) 4000. That is, the amount of material required to pass BSE from one cow to another is 4000 times less than the amount needed for cow to human transmission via ingestion.

The report concludes that restrictions on the use of brain and vertebrae in the production of gelatine are not justified. It does not quantify the risk in terms of expected numbers of vCJD cases but goes to some lengths to explain that the risks are very much smaller (approximately at least 1000 times less) than the risks already taken by the UK population who ate large amounts of contaminated foods between 1980 and 1996. Those risks are expected to lead to a further 400 cases at most.

