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Contribution of animal products to dietary intakes in the very old

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Animal derived foods supply not only high-quality protein but are also a rich source of several vitamins and minerals.

We aimed to assess the contribution of animal-based foods to dietary intake in 793 eighty-five year-olds (302 men and 491 women) living in North-East England and participating in the Newcastle 85+ cohort study⁽¹⁾ (see <http://research.ncl.ac.uk/85plus> for further details).

Dietary information was collected at baseline in 2006/2007 using a repeated multiple pass 24-hour recall (2 × 24hr-recall). Energy, macronutrient, vitamin and mineral intakes were estimated using the McCance and Widdowson's Composition of Foods 6th edition⁽²⁾. Contribution (%) to dietary intake was estimated based on five composite animal-based food groups viz. meat and meat products, milk and milk products, butter, egg and egg dishes and fish and fish dishes and 11 other non-animal based food groups.

	Meat and Meat Products	Milk and Milk Products	Butter	Egg and Egg dishes	Fish and Fish dishes
Consumers (%)	94	90	45	39	36
Nutrients					
Energy (%)	14.5	9.0	3.8	2.3	2.5
Total Fat (%)	20.8	12.1	10.3	4.4	3.2
SFA (%)	20.9	19.1	17.7	3.9	1.7
MUFA (%)	32.9	13.3	11.1	5.5	4.7
Protein (%)	34.6	11.5	0.1	3.7	6.4
Vitamin A (%)	39.9	9.4	7.3	3.6	0.5
Vitamin B12 (%)	53.2	12.5	0.0	5.6	17.3
Vitamin D (%)	16.4	4.6	1.7	9.8	33.8
Calcium (%)	4.1	31.3	0.2	2.3	2.8
Iron (%)	16.5	1.7	0.2	3.4	2.0
Selenium (%)	20.7	4.8	0.0	3.6	11.9
Zinc (%)	34.2	10.4	0.1	3.0	2.3

SFA, saturated fatty acids. MUFA, monounsaturated fatty acids.

Misreporting was not accounted for in the main analysis but estimated at 17 % (n = 124). Animal derived foods contributed between 24 % and 89 % to selected nutrients' intake. More than half (56.3 %) of protein intake was derived from these food groups. Half and 94 % of the meat and meat products contribution to vitamin B12 and vitamin A intake, respectively, came from liver and liver dishes. Animal based foods are an important source of several macro and micronutrients in this age group.

1. Collerton J, Davies K, Jagger C *et al.* (2009) Health and disease in 85 year olds: baseline findings from the Newcastle 85+ cohort study. *BMJ* **339**, b4904.
2. Food Standards Agency (2002) *McCance and Widdowson's The Composition of Foods, Sixth summary edition*. Cambridge: Royal Society of Chemistry.