

Irish Section Meeting, 19–21 June 2013, Childhood nutrition and obesity: current status and future challenges

Database of typical food portion sizes in Irish pre-school children aged 1–4 years

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Typical food portion sizes have previously been reported for Irish children, adolescents and adults,⁽¹⁾ but not for pre-school children. The aim of this study was to develop a database describing typical portion weights for a selection of commonly consumed foods for Irish pre-school children. Analysis was based on the National Pre-School Nutrition Survey (2010/2011) which was carried out to establish a database of habitual food and beverage consumption in a representative sample of Irish pre-school children ($n = 500$) aged 1–4 years. A 4-d weighed food record was used to collect food intake data. Methods of quantifying food weights included: foods weighed by caregivers (78%), food weights derived from manufacturers (7%), use of age-appropriate photographic food atlases (6%)⁽²⁾ and household measures (6%).

Portion size was defined as the weight of food consumed per eating occasion i.e. weight served minus leftovers. The database describes the median, 25th and 75th percentile portion weights for approximately 100 food items. Typical (median) portion weights (g) and number of eating occasions (n) are described below for a selection of commonly consumed foods for pre-school children, split by age (y).

Age	1y ($n = 126$)		2y ($n = 124$)		3y ($n = 126$)		4y ($n = 124$)	
	n	median (g)	n	median (g)	n	median (g)	n	median (g)
Pasta, boiled	103	51	95	68	79	71	115	81
White bread, sliced	169	27	205	36	222	38	229	38
Brown bread, sliced	101	27	175	34	141	36	126	38
RTEBC, dry	351	18	379	20	418	24	425	25
Porridge (made up with milk/water)	63	89	73	118	71	103	41	137
Milk, as a beverage	817	189	616	160	436	138	404	140
Milk, on cereal	301	88	330	96	347	100	372	100
Yoghurt, all types	181	90	194	100	219	100	213	100
Fromage frais	185	60	118	60	121	60	131	60
Cheese	225	17	203	20	190	20	204	20
Potatoes (mashed/boiled)	180	64	161	61	159	66	158	78
Carrots, boiled	95	25	70	25	97	31	87	34
Peas, boiled	54	12	30	15	32	21	27	22
Sausages	62	40	77	40	69	45	73	41
Ham/luncheon meats	64	18	105	20	152	20	170	20
Roast meat	59	25	65	31	83	32	76	41
Fruit juice	144	50	176	92	232	124	280	120
Bananas, flesh only	227	59	186	83	191	81	167	90
Eating apples, edible part only	103	40	154	65	150	70	172	77
Biscuits	220	14	183	18	174	22	188	20

RTEBC, ready-to-eat breakfast cereals.

Typical portion weights reported for 2–4 year olds were similar for most foods while those reported for 1 year olds were generally smaller. For foods which are generally packaged in unit amounts (e.g. yoghurt, fromage frais) or defined portions (e.g. sliced bread, sausages, sliced meats), typical portion weights were similar across age. This data may be useful for dietary assessment and dietary guidance for pre-school children.

The project was funded by the Irish Department of Agriculture, Food and the Marine under the Food for Health Research Initiative 2007–2012.

- Lyons J (2012) National Food Consumption Surveys of Children, Adolescents and Adults in Ireland: Food Portion sizes. PhD Thesis, University College Cork.
- Foster E, Hawkins A & Adamson A (2010) Young Person's Food Atlas: Pre-school. Food Standards Agency: London.