

THE NUTRITIONAL QUALITY OF PIZZAS



A REPORT ASSESSING THE ENERGY, SATURATED FAT AND SALT CONTENT OF PIZZAS SOLD IN THE UK

May 2023

About Action on Salt

Action on Salt is a group concerned with salt and its effects on health, supported by 22 expert scientific members. Action on Salt is successfully working to reach a consensus with the food industry and Government over the harmful effects of a high salt diet and bring about a reduction in the amount of salt in processed foods as well as salt added to cooking, and at the table.

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BACKGROUND

Poor diets - high in salt, calories, and saturated fat - are the leading cause of death and disability worldwide [1]. Saturated fat raises cholesterol levels, a risk factor for cardiovascular disease (CVD), whilst excessive calories are associated with obesity a risk factor for CVD, type 2 diabetes and various cancers.

Excessive consumption of salt is internationally recognised to raise blood pressure, which is one of the most important risk factors for CVD. CVD is responsible for one in four deaths in England [2], and yet it is a largely preventable condition that is commonly brought about by poor diet. For every 1g reduction in population salt intake, more than 4,000 premature deaths could be prevented each year, with annual health savings to the NHS at £288million [3]. Reducing salt intake has therefore been identified as one of the most cost-effective measures that any country should take to improve population health outcomes.

The maximum recommended limit for salt consumption in the UK is 6g a day in adults, and even less for children [4], however, the latest figures show we are eating on average 40% more than this (8.4g/day) [5]. Most of our salt intake comes from packaged and prepared foods, which cannot be removed by the consumer.

Salt reduction has been a feature of UK food policy for two decades and is accepted globally as a simple and cost-effective strategy to improve public health. The Government have a reformulation programme to reduce levels of salt added to foods by food businesses, including key contributors of salt to our diet such as bread, cheese and pizza [6]. Previous research on the salt content of pizzas has demonstrated the significant level of both salt and calories in this category, with 1 in 2 pizzas containing more salt than the maximum daily limit of 6g [7].

The focus of this reformulation programme has largely been on packaged prepared foods bought in-store, but there is a growing impact from the out of home sector on our health. The out of home sector has experienced exponential growth in recent decades, with the market size of fast food and takeaway food in the UK forecast to reach >£21 billion in 2022 [8]. Takeaway pizzas were reported as the fourth most popular takeaway food, with a reported increase in consumption over the years [9]. Restaurant and takeaway foods are typically larger in portion size, and higher in calories, saturated fat and salt. In previous research, takeaway pizzas were shown to contain up to two and a half times as much salt compared to store bought pizzas [10].

The government has initiated measures to increase transparency in restaurants through mandatory calorie labelling and introducing guidelines for calorie reduction both in the retail and out of home sector. These policies, whilst voluntary, have been set in a bid to encourage the food industry to play their part in tackling the country's obesity crisis. Targets are set higher for the out of home sector in an attempt to bring them in line with the rest of the food industry.

The salt content of pizza has not been reviewed by Action on Salt since 2014. The aim of this report is to assess industry progress in meeting the 2024 salt and calorie reduction targets and highlight successful case studies of where salt content has been reduced successfully.

METHOD

DATA COLLECTION

Retail

All chilled and frozen ready-to-eat pizzas available in retail outlets across the UK were surveyed according to strict inclusion and exclusion criteria (Appendix 1). Data was collected from supermarkets, allowing for a wide range of pizzas available for purchase. Ten major retailers were visited between January and March 2023 (Aldi, Asda, Iceland, Lidl, Marks & Spencer, Morrisons, Sainsbury's, Tesco, The Co-operative and Waitrose). Nutrition information and ingredients was obtained directly from product packaging using the FoodSwitch Data Collector App [11]. Store bought pizzas do not declare pizza dimensions on packaging and therefore all pizza sizes were collected, unless explicitly stated as 'mini' or 'sharing'. Data was shared with manufacturers and retailers for verification.

Restaurant and Takeaway Companies

Pizzas sold in large high street restaurants and takeaway chains and franchises across the UK were surveyed. Restaurant and takeaway outlets were shortlisted based on the following criteria:

- Present in more than 50 locations across the UK
- Pizza included on the menu
- A functioning website
- Nutrition information available online

Nutrition information was collected online from thirteen major out of home outlets in February 2023 (ASK Italian, Bella Italia, Caprino's, Domino's, JD Wetherspoons, Fireaway, O'Neill's, Papa John's, Pizza Express, Pizza Hut Restaurant and Pizza Hut Takeaway (each have separate menus and nutritional breakdowns), Stonehouse Pizza & Carvery and Zizzi), following strict inclusion criteria (Appendix 2). Takeaway companies often have a wide range of pizza toppings and bases to choose from, leading to many possible meal items. Therefore, for this research, only medium (or equivalent) pizzas were collected. These are similar in size to the restaurant sector and deemed likely to be consumed by one person, according to government literature [12]. All data was shared with companies for verification.

DATA ANALYSIS

The energy, saturated fat and salt content per 100g and per pizza was analysed for comparison within and across companies, where possible. Suggested portion sizes vary from 1 slice to a whole pizza. As salt per 100g information was limited in restaurants and takeaway establishments, for comparison purposes we looked at salt content per pizza, as this is likely what most people would eat, particularly when eating out.

Pizzas were split into 3 main categories (meat & fish, vegetarian and vegan) and 7 sub-categories to make comparisons across similar pizza flavours (cheese, chicken, fish, ham, other meat, pepperoni, vegan and vegetarian).

VOLUNTARY REFORMULATION TARGETS

Industry progress towards achieving their respective 2024 maximum salt reduction targets [13] for pizzas in both the retail and out of home sector was assessed (Appendix 3). The salt reduction targets for retailers and manufacturers express values should be considered per 100g 'as consumed', however some companies display nutrition information per 100g 'as sold' in accordance with EU regulations [14]. Nutrition information based on values 'as sold' does not take into account any moisture lost during cooking, therefore it should be noted that true salt concentration is in fact higher and reported compliance is likely an underestimation.

Compliance towards the 2024 maximum and simple average calorie reduction targets was assessed based on the calorie content of a whole pizza as a portion, in line with current government guidelines [12]. This is applicable to both the in-home sector as well as restaurants, takeaway and delivery companies, and differs to what retailers and manufacturers declare a portion size to be on packaging. Pizza size/dimensions are not declared on product packaging, but given they are fairly similar in size to restaurant pizzas, we have assumed a whole pizza to be one portion. All takeaway and delivery pizzas were medium in size and 11.5 inches or similar and also deemed to be one portion.

SALT CONTENT OVER TIME

A comprehensive survey of the nutritional content of pizzas was previously surveyed in 2014 [7], where data was collected using similar methodology from all major supermarkets and from large pizza restaurant and takeaway chains. The average salt content of in-home and out of home products was compared over time. Where possible, products were directly matched across both years using product name, description, and/or barcode where applicable, to make direct comparisons of salt over time

RESULTS

KEY FINDINGS:

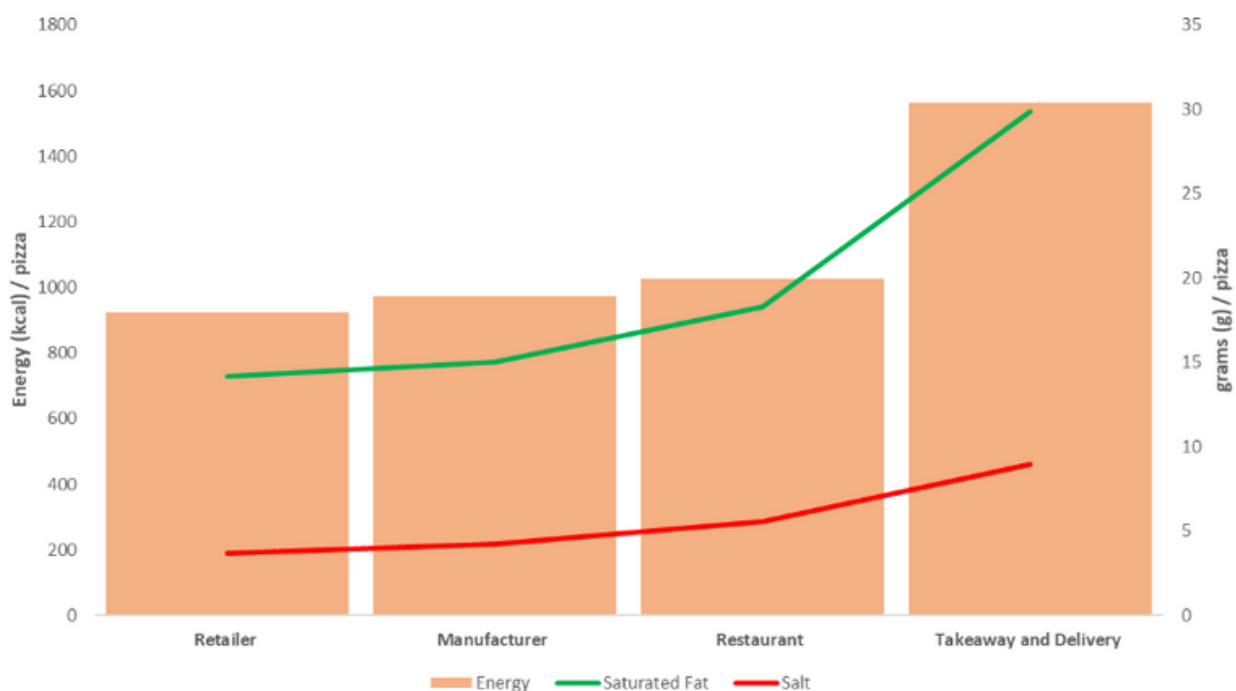
- Half of all UK pizzas provided a days' worth or more of salt (6g) and saturated fat (20g)
- Takeaway pizzas contained more than twice the amount of salt compared to supermarket pizzas
- Store-bought pizzas had stronger compliance to reformulation targets, with >85% achievement of both the maximum salt and calorie targets
- Out of home sector lagging behind in salt and calorie reduction; only 57% achieved the maximum salt target and 40% achieved the maximum calorie target
- Store-bought pizzas reportedly lower in salt compared to 2014, unlike restaurant and takeaways where many are now higher in salt

DATA OVERVIEW

A total of 1,387 pizzas were collected from 39 companies; 10 retailers, 16 manufacturers, 8 restaurant chains and 5 takeaway and delivery companies. The majority of pizzas included in the survey were from takeaway and delivery companies (n=668) followed by store bought pizzas (n=416) and restaurants (n=305).

Average energy, saturated fat and salt content in a typical pizza were substantially higher in takeaway and delivery businesses compared to store bought pizzas (Figure 1).

Figure 1. Average energy, saturated fat and salt content of a typical pizza, split by establishment



Across all products surveyed, approximately 1 in 2 contain 6g or more of salt and 20g or more of saturated fat per pizza (predominantly pizzas from restaurant, takeaway and delivery sector), exceeding the maximum recommended limits for an adult. Nearly 2 in 3 (n=852) pizzas surveyed were meat based, dominating the pizza industry. Meat based pizzas were also the highest, on average, in energy, saturated fat and salt content (Appendix 4).

Given the large variation in pizza size for different outlets, analysis has been split for retail and manufacturer, and out of home businesses.

RETAILERS AND MANUFACTURERS

Nutrition Content

Retailers dominated the pizza business in supermarkets, with three quarters (73%) of all in-store pizzas surveyed produced by one of the ten major retailers in the UK. The majority were cheese pizzas (n=109) followed by other meat (n=74) and pepperoni (n=70).

Store bought pizzas had an average energy content of 250kcal/100g, saturated fat content of 3.8g/100g and salt content of 1.00g/100g. The range was broad across food company and pizza sub-category, with for example more than a 3-fold difference in the salt and saturated fat content of cheese pizzas (Table 1). Marginal differences between retailer and manufacturer were observed, with retailers slightly higher in energy and saturated fat, and lower in salt.

Pepperoni pizzas were on average higher in energy, saturated fat and salt per 100g compared to other pizza categories, whilst vegetarian pizzas were lowest in salt.

Table 1. Energy, saturated fat and salt content per 100g, sorted highest to lowest for salt content

	(n)	Average Energy kcal/100g (Range)	Average Saturated Fat g/100g (Range)	Average Salt g/100g (Range)
All Pizza	416	249 (174-375)	3.8 (0.5-8.0)	1.00 (0.55-1.80)
Manufacturer	114	242 (174-375)	3.7 (0.5-9.0)	1.01 (0.58-1.78)
Retailer	302	252 (195-323)	3.9 (1.6-7.0)	1.00 (0.55-1.80)
Meat & Fish	249	250 (185-375)	3.7 (0.7-8.0)	1.04 (0.60-1.80)
Pepperoni	70	274 (211-323)	4.6 (2.1-7.6)	1.12 (0.73-1.70)
Ham	41	236 (199-302)	3.4 (1.6-8.0)	1.03 (0.65-1.58)
Chicken	61	237 (200-375)	2.8 (0.7-5.0)	0.92 (0.60-1.45)
Fish	3	220 (212-225)	2.4 (1.8-3.3)	1.04 (0.90-1.10)
Other Meat	74	251 (185-285)	3.8 (1.8-5.5)	1.08 (0.70-1.80)
Vegetarian	145	252 (188-319)	4.2 (1.9-8.0)	0.94 (0.55-1.78)
Cheese	108	262 (204-319)	4.6 (2.3-8.0)	0.96 (0.57-1.78)
Other Vegetarian	37	221 (188-268)	2.9 (1.9-5.1)	0.87 (0.55-1.20)
Vegan	22	224 (174-280)	2.7 (0.5-4.9)	0.96 (0.73-1.68)

Pizza sizes varied depending on retailer and manufacturer, ranging from 101-670g. Suggested portion sizes were also variable and inconsistent to total weight, ranging from one to six portions per pizza. The most suggested portion was 2 servings per pizza.

When looking at the nutrition content of an entire pizza, 3 in 4 provided half or more of an adult's daily limit for saturated fat and salt (77% and 73% respectively). In addition to this, over 1 in 3 (41%) contained 1,000kcal or more per pizza. Average energy, saturated fat and salt content per pizza was greatest in manufacturers compared to retailers (Appendix 5).

Salt Targets

Out of the 416 pizzas included in this research, 14% (n=59) had a salt content per 100g greater than the respective maximum salt targets, with retailers having greater compliance with the targets (89% vs 78%).

Promisingly, 13 companies, contributing 47% of all store-bought pizzas (n=196), all met their respective 2024 maximum targets¹; Table 2 lists only those companies with products exceeding the maximum target.

Table 2. Proportion of pizzas exceeding the maximum salt target for pizzas

Company Name	Total number of products surveyed	Proportion exceeding maximum salt target (number of products exceeding target)
Retailer Total	302	12%
Manufacturer Total	114	22%
Franco Manca	4	100% (4)
Freiberger	2	100% (2)
Zizzi Restaurants Ltd	4	100% (4)
Crosta & Mollica	9	67% (6)
The Pizza Company	5	60% (3)
Bakkavor	2	50% (1)
Cosmo Products Ltd	2	50% (1)
Iceland	31	48% (15)
Carluccio's	4	25% (1)
Aldi	30	23% (7)
Marks & Spencer	28	11% (3)
Sainsbury's	52	12% (6)
Dr. Oetker	10	10% (1)
Pizza Express	13	8% (1)

Pizzas with cured meat toppings struggled to comply with the salt targets more so than other pizzas, with 23% of manufacturers and 16% of retailers having exceeded the maximum target. This is in comparison to pizzas with other toppings, whereby 21% manufacturers and 7% retailers exceeded the maximum salt target.

No comment can be made on industry compliance towards the sales-weighted average due to restrictions in data access.

Salt Content of Pizzas from Previous Research

The salt content of pizza was previously surveyed in 2014 [7], which found the average salt content to be 1.05g/100g. Since then, pizzas available in store are now reported to be 5% lower in salt (1.00g/100g).

Where companies were in operation across both years, the average salt content (per 100g) of the full range of pizzas available at that moment in time was observed. Some companies were reported to be producing pizzas with substantially lower levels of salt since 2014, with the greatest reductions seen in the Goodfella's range - now on average 29% lower in salt compared to 2014. Contrastingly, pizzas produced by the Co-operative were 13% higher in salt (Table 3).

Table 3. Average salt content (g/100g) of pizzas in 2014 and 2023, split by company

Brand Name	Average salt g/100g 2014	Average salt g/100g 2023	Percentage Change
Goodfella's	1.10	0.78	-29%
Pizza Express	1.30	1.00	-24%
Dr. Oetker	1.31	1.02	-22%
Waitrose	1.17	0.96	-18%
Chicago Town	1.15	0.95	-18%
Tesco	1.14	0.96	-16%
Lidl	1.15	0.99	-14%
Morrisons	1.02	0.91	-11%
Sainsbury's	1.12	0.99	-11%
Asda	0.92	0.96	+4%
Aldi	0.98	1.03	+6%
Iceland	1.10	1.18	+7%
Marks & Spencer	0.94	1.03	+10%
The Co-operative	0.83	0.93	+13%

There were 29 pizzas from 9 companies (6 retailers and 3 manufacturers) that were surveyed across both years, the vast majority (80%) of which achieved a reduction in salt content. The average salt level for these 29 products was 1.20g/100g in 2014 and 0.96g/100g in 2023. This represents a reduction of 19% from 2014 to 2023.

The pizza with the greatest reduction in salt was seen in Goodfellas' *'Takeaway Classic The Big Cheese'* with a 48% reduction from 1.3g/100g to 0.67g/100g. Contrastingly, the pizza with the biggest reported increase in salt was Marks & Spencer's *'Wood Fired Pizza Ham, Mushroom & Mascarpone'* pizza with a 20% increase from 0.9g/100g to 1.08g/100g.

Table 4. Examples of pizzas with notable reductions in salt between 2014 and 2023

Product Name	Salt g/100g 2014	Salt g/100g 2023	Percentage Difference
Goodfella's Takeaway Classic The Big Cheese 555g	1.30	0.67	-48%
Goodfella's Takeaway Classic Fully Loaded Pepperoni 524g	1.70	0.88	-48%
Pizza Express Classic American Pepperoni Pizza 250g	1.50	1.00	-33%

Calorie Targets

Out of the 416 pizzas included in this research, 12% (n=50) had a calorie content greater than the maximum target (1230kcal per pizza), with retailers complying most (90% achievement vs 83% by manufacturers).

Pizzas produced from 14 companies all fell below the 2024 maximum calorie target. These companies however only contributed a quarter (25%) of store-bought pizzas included in this research.

Both retailers and manufacturers scored similarly against the simple average calorie target, with 63% and 66% of pizzas providing more than 830kcal, respectively. Only four companies, totalling just 7 pizzas, fell below both the maximum and the simple average calorie target (Table 5).

Table 5. Proportion of companies whose pizzas exceed the maximum calorie target for pizzas

Company Name	Total number of products surveyed	Proportion exceeding maximum calorie target (number of products exceeding target)	Proportion exceeding simple average calorie target (number of products exceeding target)
Retailer	289	10%	63%
Manufacturer	114	17%	66%
Bakkavor	2	100% (2)	100% (2)
The Pizza Company	5	100% (5)	100% (5)
Freiberger	2	50% (1)	100% (2)
Chicago Town	20	35% (7)	70% (14)
Lidl	26	35% (9)	65% (17)
Carluccio's	4	25% (1)	100% (4)
Sainsbury's	52	15% (8)	63% (33)
Aldi	30	13% (4)	77% (23)
Iceland	31	13% (4)	84% (26)
Goodfella's	28	11% (3)	57% (16)
Asda	31	6% (2)	48% (15)
Tesco	34	6% (2)	44% (15)
Waitrose	21	5% (1)	90% (19)
Marks & Spencer	28	4% (1)	57% (16)
Cosmo Products	2	0%	100% (2)
Franco Manca	4	0%	100% (4)
Gino d'Acampo	2	0%	100% (2)
Wicked Kitchen	2	0%	100% (2)
Zizzi Restaurants	4	0%	100% (4)
Crosta & Mollica	9	0%	89% (8)
Morrisons	33	0%	61% (20)
Dr. Oetkar	10	0%	50% (5)
The Co-operative	16	0%	38% (6)
Pizza Express	13	0%	38% (5)
Kirby's	3	0%	0%
Kraft Heinz	1	0%	0%
Schar UK Ltd	1	0%	0%
The Gym Kitchen	2	0%	0%

RESTAURANT AND TAKE AWAY SECTOR

Nutrition Content


Takeaway and delivery companies dominated the total volume of pizzas surveyed for the out of home sector (69%), largely from Domino's (n=426). This was due to many having a wide range of pizza toppings and bases to choose from, leading to a large number of possible pizza variations.

Only six out of 13 outlets provided nutrition information per 100g publicly, making it difficult to make fair and consistent comparisons across the sector. The nutritional content was therefore reported per pizza, under the fair assumption that pizzas are ordered as a single menu item and consumed as one individual portion. Medium pizzas from takeaway and delivery companies, where the pizza dimensions are 11.5 inches or similar were deemed to be comparable in size to pizzas ordered in restaurants.

Pizzas across the entire out of home sector had an average energy content of 1395kcal, saturated fat content of 26.3g and salt content of 7.92g. Notable differences between the restaurant and takeaway/delivery sector were observed, with takeaway pizzas higher in energy, saturated fat and salt (Table 6). The nutritional content within a pizza sub-category was also large, with, for example, a 6-fold difference in the salt and saturated fat content of cheese pizzas.

Table 6. Energy, saturated fat and salt content per pizza for the out of home sector, sorted highest to lowest for salt content

	(n)	Average Energy kcal/pizza (Range)	Average Saturated Fat g/pizza (Range)	Average Salt g/pizza (Range)
All Pizza	971	1395 (513-2689)	26.3 (1.0-80.3)	7.92 (1.85-21.38)
Restaurant	303	1027 (513-1876)	18.1 (1.0-51.3)	5.56 (2.70-13.80)
Takeaway	668	1562 (602-2689)	29.9 (7.9-80.3)	8.98 (1.85-21.38)
Meat & Fish	624	1511 (588-2689)	28.9 (1.0-80.3)	8.88 (2.42-21.38)
Pepperoni	340	1606 (602-2689)	31.6 (7.9-80.3)	9.26 (2.42-21.38)
Ham	110	1365 (641-2289)	23.4 (2.5-70.6)	9.07 (3.60-20.77)
Chicken	100	1540 (622-2652)	31.7 (5.4-72.6)	8.92 (3.70-14.31)
Fish	17	1328 (589-1877)	21.3 (1.0-51.7)	6.96 (3.90-10.70)
Other Meat	57	1223 (588-2038)	20.8 (10.3-51.9)	6.77 (3.20-11.76)
Vegetarian	238	1230 (513-2095)	22 (2.6-59.0)	6.28 (1.85-13.80)
Cheese	175	1261 (573-2095)	21.9 (2.6-55.4)	6.69 (2.62-13.80)
Other Vegetarian	63	1145 (513-2087)	22 (9.6-59.0)	5.08 (1.85-10.77)
Vegan	109	1093 (515-2061)	20.6 (1.0-61.0)	6.01 (2.80-13.80)



Where information was available, pizza weights varied across the out of home sector, ranging from 231-875g. The larger weights had thicker 'speciality' bases e.g., stuffed crusts in comparison to more traditional pizza bases. Suggested portion sizes in the takeaway and delivery sector were also variable and inconsistent to total weight, ranging from one to six portions per pizza. The most commonly suggested portion was 1 slice for takeaway and delivery companies, whilst the restaurant sector considered a whole pizza to be a single serving.

When looking at the nutrition content of an entire pizza, 80% provided 1,000kcal or more, 96% had half or more of an adult's daily limit for saturated fat, and 99% had half or more of an adult's daily limit for salt.

Salt Targets

Out of the 973 pizzas included in this research, 43% (n=420) exceeded their respective salt target, with similar compliance between restaurants and the takeaway sector (45% and 42% respectively). 111 (17%) pizzas had 'speciality bases' and were therefore exempt from the salt targets, as per the guidance. These pizzas had on average 10.8g salt per pizza and are only available in takeaway and delivery stores, with the saltiest being Domino's 'The Sizzler Standard Mozzarella Stuffed Crust' medium pizza containing 21.38g salt.

Pizza Hut (delivery) was the only company whose entire range of medium pizzas fell below the maximum salt target (Table 7).

Table 7. Proportion of companies whose pizzas exceed the maximum salt target for pizzas

Company Name	Total number of products surveyed	Proportion exceeding maximum salt target (number of products exceeding target)
Restaurant	305	43% (138)
Takeaway	668	42% (282)
O'Neill's	11	100% (11)
JD Wetherspoons	7	86% (6)
ASK Italian	26	77% (20)
Papa John's	79	76% (42)
Domino's	426	65% (223)
Stonehouse Pizza & Cavery	12	58% (7)
Zizzi	32	50% (16)
Pizza Hut (Restaurant)	83	50% (30)
Pizza Express	94	45% (42)
Caprino's	51	31% (15)
Bella Italia	40	15% (6)
Fireaway	24	8% (2)
Pizza Hut (Delivery)	88	0% (0)

No comment can be made on industry compliance towards the sales-weighted average due to restrictions in data access.

Salt Content of Pizzas from Previous Research

Comparing the salt content of companies surveyed in both years, the average salt content of pizzas available in 2014 was 8.34g compared to 8.27g in 2023, an overall reduction of <1%. The selection of pizzas available in the out of home sector appear to now have more salt, with only Pizza Hut delivery reportedly selling pizzas lower in salt (Table 8).

Table 8. Average salt content (g/pizza) of pizzas in 2014 and 2023, split by company

Brand Name	Average salt/pizza (g) 2014	Average salt/pizza (g) 2023	Percentage difference
ASK Italian	2.26*	5.98	+164%
Pizza Hut Restaurant	5.23	6.45	+23%
Zizzi	4.85	5.30	+9%
Domino's	9.25	10.03	+8%
Papa John's	9.62	9.91	+3%
Pizza Express	5.13	5.00	-3%
Pizza Hut (Delivery)	6.60	5.20	-21%

There were 388 products that were directly matched across both years. The average salt level for these 388 products was 7.49g/pizza in 2014, and 9.22g/pizza in 2023, representing a 23% increase in salt content (Appendix 6). Only 35 pizzas had ≥5% reductions in salt; the greatest reduction was seen in Domino's 'Mixed Grill Reduced Fat Mozzarella Classic Crust' medium pizza, with a 53% reduction from 6.91g to 3.26g/pizza. Contrastingly, the pizza with the biggest reported increase in salt was Domino's 'Tandoori Hot Standard Mozzarella Thin & Crispy Crust' medium pizza, 5.3g in 2013 and now 14.36g/pizza (171%).

Table 9. Examples of pizzas with notable reductions in salt between 2014 and 2023

Brand Name	Product Name	Salt g/pizza 2014	Salt g/pizza 2023	Percentage difference
Dominos	Mixed Grill Reduced Fat Mozzarella Classic Crust Medium	6.91	3.26	-53%
Pizza Hut (Restaurant)	BBQ Americano Gluten Free	7.26	4.80	-34%
Zizzi	Meat Sofia Rustica Pizza	9.00	6.39	-29%
Pizza Hut (Delivery)	Veggie Sizzler Gluten Free	5.94	4.24	-29%

*Data for 2014 was obtained directly from ASK Italian and was publicly available information. ASK Italian believe 2014 data was erroneous

Calorie Targets

Out of the 971 pizzas included in this research, 60% (n=578) had a calorie content per pizza greater than the maximum target, with takeaway and delivery companies having the least compliance to the targets.

No company has achieved full compliance to the maximum target; Pizza Express are leading the way with only 3% of their pizza range having a calorie content greater than the maximum target. This is in stark contrast to Papa Johns, where 96% of their medium pizzas exceed the maximum (Table 9).

Compliance towards the simple average target appeared to be much more challenging, with only Bella Italia producing more than half of their pizzas at or below 830kcal; all other restaurants and takeaway and delivery companies exceed this target in more than 70% of their range.

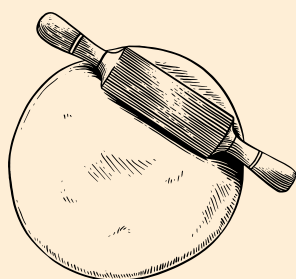
Table 9. Proportion of companies whose pizzas exceed the maximum calorie target for pizzas

Company Name	Total number of products surveyed	Proportion exceeding maximum calorie target (number of products exceeding target)	Proportion exceeding simple average calorie target (number of products exceeding target)
Takeaway	668	78% (519)	99% (662)
Restaurant	305	19% (59)	80% (241)
Papa John's	79	96% (76)	100% (79)
Domino's	426	83% (355)	100% (424)
Caprino's	51	73% (37)	100% (51)
Stonehouse Pizza & Carvery	12	71% (8)	100% (12)
O'Neill's	11	55% (6)	100% (11)
Pizza Hut (Delivery)	88	52% (46)	99% (87)
Zizzi	32	35% (12)	81% (26)
JD Wetherspoons	7	29% (2)	86% (6)
Pizza Hut (Restaurant)	83	24% (20)	95% (79)
Fireaway	24	21% (5)	88% (21)
ASK Italian	26	15% (4)	96% (25)
Bella Italia	40	10% (4)	45% (18)
Pizza Express	94	3% (3)	70% (64)

THE ROLE OF SALT IN PIZZA

Salt has multiple applications in pizza, owing to the various components and ingredients used for the final product. The majority of the salt in pizza typically originates in the dough and cheese, both of which require salt not just for taste but for structural and functional purposes.

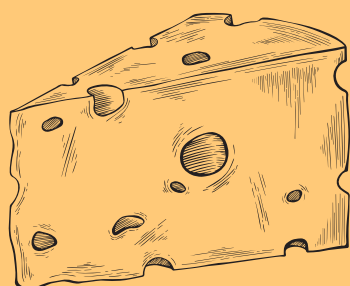
Pizza Dough



Salt helps with processing and strengthens the gluten which is important for the dough's structure. The addition of salt lowers yeast activity while increasing fermentation rate, resulting in a more elastic and resistant dough [15]. Salt also plays a preservation role and allows for extended shelf life.

Nevertheless, it is possible to make fresh pizza dough without adding salt, and there are some available pizza base mixes on the market containing 0.28g salt per 100g of final product [16]. Ready made pizza bases fall under the UK salt reduction target for breads and rolls, with a maximum salt target of 1.01g/100g. A report assessing pizzas sold in local restaurant and takeaways found the salt content of doughs ranged from 0.48-2.23g/100g [17].

Cheese



Salt is used in cheese production for three main reasons – preservation, quality and flavour. The addition of salt impacts the water activity and limits microbial growth, allowing for an extended shelf-life of the final product. Salt also directly contributes to the flavour and texture of cheese, regulating the final pH, degradation of fat and casein and the development of flavour compounds including free amino acids and fatty acids [18].

A report assessing pizzas sold in local restaurant and takeaways found an 11-fold difference between the lowest and highest salt mozzarella used by local establishments [17]. This demonstrates the importance of sourcing good quality low sodium cheese.

THE ROLE OF SALT IN PIZZA

Salt has multiple applications in pizza, owing to the various components and ingredients used for the final product. The majority of the salt in pizza typically originates in the dough [pizza report?] and cheese, both of which require salt not just for taste but for structural and functional purposes.

Pizza Sauce

Freshly made tomato sauce requires minimal ingredients, with salt's presence namely for taste. If using pre-prepared sauces, then salt is often added for preservation and to allow for use of poorer quality ingredients that lack flavour.



The salt content can vary drastically in pizza sauces, depending on whether it is home-made or procured. Home made allows for greater control in salt content, but if not careful, then can also lead to significant levels of salt. A report assessing pizzas sold in local restaurant and takeaways found the sauce recipes varied the most, with one sample containing only 0.02g salt per 100g, whereas the highest contained 1.77g salt per 100g [17].

Toppings



Salt is required in cured meats primarily to inhibit growth of pathogenic microorganisms as well as adding flavour and colour to the final end product [19]. But there are many other ingredients and toppings that can be added in place, or in addition to, cured meats to offset the total salt content of the pizza. High quality fresh ingredients, such as vegetables, chilli, and fresh herbs, could offset the need for salt as a flavour enhancer.

SALT REDUCTION SOLUTIONS

There are several available strategies available to manufacturers and chefs to produce pizzas with less salt. These vary from gradual reductions in salt added during the production process, to using reduced sodium salt replacers.

Dough

1. Thinner bases offer a more authentic pizza and ultimately provides fewer calories and salt to the final dish
2. Reductions in the salt: dough ratio can be done gradually and unobtrusively, allowing taste preferences to adjust. Simply removing added salt by as much as 10% have been shown to go relatively unnoticed by consumers [20].
3. An altered shape of the pizza base offers a more authentic appearance. Oval shapes are more rustic in appearance, look less uniform and allow gradual reductions portion size that go relatively unnoticed by consumers. This will result in less dough and toppings, reducing the total salt, saturated fat and calorie content.
4. A salt coating, whereby the dough is coated with salt but not mixed in, has been shown to enhance the perception of saltiness whilst reducing salt content by as much as 30% without affecting the sensory perception or texture [21].
5. Other ingredients can be used to strengthen the effect of gluten, in place of salt. Corn starch, for example, has been used in previous research due to its ability to form resistant and transparent films that provide efficient barriers to gases during the transformation process. This method was found to improve the visual appearance of the product [22].
6. Use of sodium reduced salts have been shown to be effective at reducing the salt content of dough. This includes, but is not limited to LoSalt, Microsalt, SmartSalt and SaltWell. Many of these ingredients can be used as a direct replacement of salt, or as a blend, and has similar functional, taste and structural properties to salt.

Cheese

1. Other cheese varieties such as fresh mozzarella and ricotta have a lower salt content per 100g. Use a mixture where appropriate to reduce the overall salt content.
2. Sprinkling cheese from a greater height will allow for an even distribution of cheese to the base.
3. A defined amount of cheese added to pizzas will ensure consistency, and allow opportunities for gradual reductions over time.
4. Suppliers play a key role in producing and providing lower salt grated cheese.
5. Use of sodium reduced salts such as SaltWell have been shown to be effective at reducing the salt content of cheese.

Toppings

1. Gradual reductions in the meat content will reduce the salt, saturated fat and energy content of pizzas.
2. Smaller pieces of meat will give a wider distribution across pizza and a more consistent flavour profile, whilst allowing for small reductions in the final quantity of meat used.
3. Use of fresh vegetables will add vibrancy and different textures to your pizza.
4. Avoid additional sauces or drizzles of oil, resulting in fewer calories and saturated fat content.
5. Use of sodium reduced salts have been shown to be effective at reducing the salt content of meat toppings. This includes, but is not limited to LoSalt, Microsalt, SmartSalt and SaltWell. Many of these ingredients can be used as a direct replacement of salt, or as a blend, and has similar functional, taste and structural properties to salt.



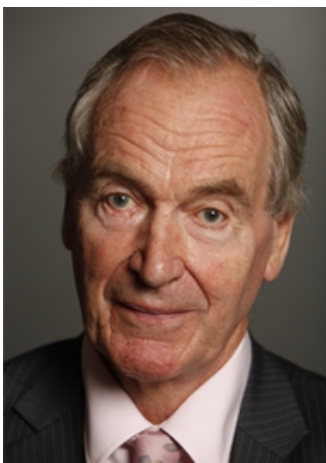
Sonia Pombo, RNutr, Campaign Lead at Action on Salt

“Despite our reliance on the food industry to provide us with access to better, healthier options, it’s infuriating to see some companies ignoring the overwhelming evidence in support of salt reduction, and worse still increasing the salt content further! These companies are showing a complete disregard for public health and are making a mockery of our voluntary reformulation programme. We know it is possible to reduce salt in pizzas, as demonstrated by some responsible businesses, so there is no reason why others can’t also do so.”



Mhairi Brown, RNutr, Policy Lead at Action on Salt

The Government showed brilliant leadership when it launched the Soft Drinks Industry Levy, a tax on sugary drinks manufacturers that lowered the amount of sugar the nation was unknowingly drinking without raising prices. The Chancellor must now expand this successful levy to food companies who refuse to lower excessive salt levels in their food, to protect our health, our economy and our NHS.”



Professor Graham MacGregor, Professor of Cardiovascular Medicine at Queen Mary University of London and Chairman of Action on Sugar

“Reducing salt is the most cost-effective measure to lower blood pressure and reduce the number of people suffering from strokes and heart disease and life changing disabilities associated with this – all of which is completely avoidable. According to the Department of Health & Social Care, each one gram/day reduction in population salt intake, saves more than 4,000 premature deaths per year. Given this, it’s a disgrace that food companies continue to fill our food with so much salt when there is the option to reformulate, which our research shows can easily be done. The Government must act now for the benefit of our future health, and furthermore save the NHS many billions of pounds.”

ENGAGING WITH INDUSTRY

We contacted all 38 companies included in this survey to discuss any successes, challenges and recent reformulation plans within this category.

We received written correspondence from 20 companies: Aldi, Asda, Bakkavor, Chicago Town, Dr Oetker, Dr Schär, Goodfellas, Kirsty's, Lidl, Marks & Spencer, Sainsbury's, Tesco, The Co-operative, Waitrose from the in-home sector, and ASK Italian, Domino's, JD Wetherspoons, O'Neill's, Stonehouse Pizza & Carvery and Zizzi from the out of home sector. We also met with Waitrose, Zizzi, Stonehouse Pizza and Carvery, Kirsty's and ASK Italian prior to the release of the report.

While we have been asked to keep most details confidential, we can share some key themes from our correspondence:

In-home

- Retailers are ahead of the game with regards to calorie reduction targets. These targets were originally designed with the out of home sector in mind, where calorie content is significantly greater than that present in the in-home sector.
- Guidance and interpretation of the calorie reduction targets are inconsistent, with some companies believing the target should be applied to the suggested portion size as declared on pack or online, and not the whole pizza.
- There are inconsistencies with nutrition information provided as sold and as consumed. Whilst nutritional information of a product 'as consumed' is most relevant and appropriate to the consumer, nutrition declarations 'as sold' are required as per EU regulations, and are also used for calculating the Nutrient Profile Score to determine if a product is high in fat, salt and sugar (HFSS). Coupled with this are inconsistencies in salt targets, where most targets are set for products declared 'as sold', whilst the pizza targets are 'as consumed'.
- Salt reduction is ingrained in many nutrition policies, and its importance is not understated.
- Upcoming regulations on advertising restrictions have helped push reformulation further along the agenda.

Out of home

- The last few years have been a challenging time for many in the out of home sector. Most are now back up and running but COVID was a huge setback for many. There are also many other external issues to consider, such as issues with procurement and supply and the cost of living crisis.
- Some out of home businesses are increasingly seeing the importance of reformulation and improving the nutritional quality of foods, and have ingrained health and nutrition in their environmental, social and governance (ESG) strategies.
- Innovative practices are being used in procurement and ingredients, such as using smaller slices of pepperoni for a more even distribution of flavour across the pizza, whilst also reducing the overall number of calories and salt.
- The voluntary nature of the salt reduction targets can sometimes be a barrier, especially when procuring ingredients abroad, where salt reduction targets are not a priority
- Some companies have focused on meeting and prioritising salt targets from a procurement perspective, with out of home salt targets secondary.
- Nutrition information often calculated from raw ingredients and not of the final cooked product, as nutritional analysis is costly and time consuming. This will likely lead to underestimations in total salt and calorie content.

“As a responsible retailer we are committed to the PHE targets and are actively liaising with suppliers to make appropriate changes and / or reformulate products where it is needed. Currently, we are 90% compliant with the salt target for pizza, but the very nature and ingredients of a traditional pizza makes this a challenge. We will continue to work hard on salt and saturated fat reductions to align with the requirements and comply with maximum targets.”



Nomad Foods

Nomad Foods is committed to serving the world with better food, and creating healthier products to empower positive choices by consumers is at the heart of our business. This has inspired the delivery of an ambitious project to innovate and reformulate our Goodfella's pizza portfolio to maximise its proportion of non-HFSS products. From a baseline of <40% of our pizza recipes in 2019, 100% of our pizza recipes will be non-HFSS by the end of 2023. This is being achieved through healthy innovation and nutritional optimisation. We seek to maximise the public health impact of nutritional improvement, focusing on salt and saturated fat reduction, as well as fibre increase. Adherence to PHE 2024 maximum salt targets is a fundamental element of our Goodfella's pizzas product design, and we're proud that 100% of our Goodfella's pizzas are compliant with these. Additionally, long-term salt reduction is part of our wider nutrition programme, and we're thrilled to see how significant the progress has been in salt reduction across our Goodfella's pizza portfolio versus 2014.

Lauren Woodley, Group Nutrition Leader at Nomad Foods

**THE GYM
KITCHEN**

“As a brand, The Gym Kitchen is about producing both nutritious, delicious, and convenient meal solutions to fuel an active lifestyle. Our stone-baked pizzas are less than 400 calories per pizza, providing 22g of protein and one of your five a day. We are committed to providing a quality pizza option that takes the lead on health, with significantly less salt, saturated fat and calories than alternatives out there.”

Segun Akinwaleola, Founder



“At M&S, we make healthy eating easier through clear on-pack labelling, including our Eat Well flower to signpost healthy choices. As part of our pizza range, we offer portion controlled Ultra-Thin and Count On Us pizzas, which are all under 450kcal. We are continually improving our products through our reformulation programme and since 2022, have removed over 10 tonnes of salt across our pizza range. The vast majority of our pizzas already meet the government’s 2024 salt and calorie targets (89% and 96% respectively) – with those that don’t set for reformulation by 2024.”

Waitrose has committed to meeting the maximum salt and calorie targets by December 2024, where quality or taste are not compromised. Currently 90% of in scope lines meet the maximum salt targets and 91% meet the maximum calorie targets. We have maximum saturated fat targets listed in our internal Nutrition and Health Policy. These targets were set a few years ago to deliver a 10% reduction in saturated fat compared to baseline.



Asda are committed to making healthier choices easy for customers, and we are continuing to drive reformulation in product categories like pizza that are important to Asda customers’ diets. Our internal data demonstrates that salt has been reduced in both pizza categories over time, and 91% of our pizza range is compliant with the 2024 maximum salt targets. On a sales-weighted average basis, we achieve 0.89g/100g in salt category 10.2, which is below the average salt target for this category. We will continue to explore opportunities with our key pizza suppliers to drive salt reduction for customers.



Azzurri's purpose is to build better food businesses that sustain happy, healthy lives and therefore we want to make it easy for customers to make informed choices that support their health and wellbeing. Our investment in new recipe management systems ensure a robust process to determine the nutritional content of each dish and allow our businesses to track changes. Our nutritional tables, available online and in restaurants, ensure customers can choose one of the many dishes that are lower in salt and meet the 2024 government targets.

As part of our desire to give peace of mind to parents, ASK Italian and Zizzi have committed to ensuring their kids' menus will meet PHE targets for sugar, salt, fat and calories by 2025 allowing our younger diners to have memorable experiences that also support their health. Both brands' core dishes for kids already sit well underneath the PHE calorie guidelines for 7-10 year olds and they both offer customers the possibility to order two portions of vegetables.* To encourage more intake of vegetables, vegetable toppings are available for pizzas and ASK Italian is offering all kids a complementary side of peas as part of their Peas Please pledge. In 2021, Zizzi was named by the Soil Association as a top 3 brand in the country for young diners eating out.

Through our 2030 Goals, we're committed to going even further, by introducing new goals for salt, fats and sugar.

*Stats based on 2022 Financial Year, for more please visit: The past year has seen some important developments in our food journey, starting with making it easier for customers to make informed choices about their diets through new mandatory calorie labelling in England. When it comes to kids, ASK Italian and Zizzi are keen to give peace of mind to parents. Both brands' core dishes for kids sit well underneath the PHE calorie guidelines for 7-10 year olds and they both offer customers the possibility to order two portions of vegetables. To encourage more intake of vegetables, vegetable toppings are available for pizzas and ASK Italian is offering all kids a complementary side of peas as part of their Peas Please pledge.

Through our 2030 Goals, we're committed to going even further, by introducing new goals for salt, fats and sugar. By 2025, all our kids' menus will meet PHE targets for sugar, salt, fat and calories- all to provide our younger diners with memorable experiences that also support their health. In 2021, Zizzi was named by the Soil Association as a top 3 brand in the country for young diners eating out.

In addition to our menus offering over 60% vegan and vegetarian options, we also offer gluten free options to cater to a variety of needs. We're acutely aware of our responsibilities in this area and work hard to embed the management of food hypersensitivity in our restaurants, creating a strong food safety culture.

RECOMMENDATIONS

Below are recommendations for the government, food industry and consumers to help reduce population salt intake and improve the nutritional profile of pizzas in both retail and out of home.

Government

- Introduce a levy on companies who fail to work towards salt reduction targets
- Introduce legislation that would make salt targets mandatory and ensure that all manufacturers, retailers and companies operating in the out of home sector would reduce excess levels of salt in their products.
- Promote the use of sodium-reduced salt for challenging categories of food struggling to meet salt reduction targets, such as cheese and cured meats
- Develop consumer awareness campaigns to inform the public of the dangers of salt hidden within everyday food.
- Ensure that reporting of progress towards salt reduction targets, and total salt sales, are included as mandatory metrics within the upcoming Food Data Transparency Partnership.

Food Industry

- Embed the Government's salt and calorie reduction targets into in-house nutrition strategies for improved public health, particularly for key contributors of salt to UK diets
- Adopt self-regulatory measures and initiatives to improve the health and well-being of consumers through their corporate social responsibility strategy and governance
- Retailers and manufacturers to offer realistic and consistent portion sizes
- Use guidance and advice from this report to gradually reduce the salt content of their pizzas.

Consumers

- Read nutrition labels and opt for lower salt variations. Use the FoodSwitch UK App [11] to help identify healthier alternatives so that you can swap to a lower salt choice.
- Switch to pizzas with thinner bases, fewer meat toppings and more fresh vegetables
- Make pizza just one element of your meal – eat with a salad to increase your 5 a day
- Be mindful of portion sizes and choose smaller pizzas
- Avoid meal deals on promotion as these will add additional calories, saturated fat and salt to your diet

APPENDICES

Appendix 1. Inclusion criteria for retail bought pizzas

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • All chilled and frozen pizzas • Branded and retailer own brand (no brands were excluded) • Pizzas with nutrition information declared on packaging • All pizza categories/flavourings e.g., pepperoni, meat, margherita, vegetarian and vegan options • Pizzas of a standard size, similar in size to restaurant pizzas and likely to be consumed by one person • All pizza bases e.g., deep pan, thin crust, stuffed crust 	<ul style="list-style-type: none"> • Pizzas without nutrition information declared on pack i.e., fresh pizza counters • Garlic breads • Pizza baguettes • Pizzas out of scope of a standard size, either explicitly labelled as a mini, snacking, extra-large or sharing pizza, and therefore not directly comparable in size and eating occasion to other pizzas. • Pizzas aimed specifically for children and therefore smaller in size • Products that are out of stock • Duplicates of the same pizza in a different size

Appendix 2 - Inclusion criteria for pizzas sold in large restaurant and takeaway chains

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • All pizzas available as a main dish on restaurant menus • All pizza categories/flavourings e.g., pepperoni, meat, margherita, vegetarian and vegan options • All pizza bases, e.g., deep pan, Romana, thin crust, stuffed crust • Pizzas declared on company nutrition information declarations (NB availability of certain pizzas may vary across different stores and franchises) • Where different pizza sizes are available, only nutrition information for medium pizzas or equivalent in size were collected (defined as 11.5 inches in diameter or similar) 	<ul style="list-style-type: none"> • Pizzas without nutrition information declared online • Garlic bread • Calzones • Pizzas available as a starter, side or sharing dish, as these are likely not directly comparable in size and eating occasion to other pizzas. • Pizzas aimed specifically for children and therefore smaller in size • Duplicates of the same pizza in a different size (only medium or equivalent was collected)

APPENDIX 3. Voluntary salt and calorie reduction targets for pizza.

There are a number of different salt targets for pizzas, specific to the type of pizza base (traditional or takeaway) and toppings used.

Maximum salt reduction targets for pizzas in retail, restaurant and takeaway sector

Application	Category	Maximum Salt Target
Retailer/ Manufacturer	Pizzas with cured meat toppings (as consumed)	1.25g/100g
	Pizzas with all other toppings (as consumed)	1.13g/100g
Take away	Take away style pizza with cured meat toppings	1.13g /slice
	Takeaway style pizza with all other toppings	0.88g /slice
Restaurant	Traditional Italian style pizza with cured meat toppings	6g /pizza
	Traditional Italian style pizza with all other toppings	4.75g /pizza

Retailers, manufacturers and the eating out, takeaway and delivery sector have joint calorie guidelines for pizza. The guidelines focus on pizza likely to be consumed by an individual in a single occasion, based on an analysis of products described as personal, small, or medium, or up to 11.5 inches in diameter.

Simple average and maximum calorie reduction targets for pizzas in retail, restaurant and takeaway sector

Category	Simple Average Guideline per portion	Maximum Guideline per portion
Pizza	830kcal	1,230kcal

APPENDIX 4. Average nutrition content of pizzas surveyed, split by Pizza category and eating outlet

Pizza Category	Outlet	(n)	Average Energy /Pizza (kcal)	Average Saturated Fat/Pizza (g)	Average Salt/Pizza (g)
Meat	Takeaway	482	1629	31.6	9.73
	Restaurant	142	1108	19.6	5.99
	Manufacturer	65	982	15.1	4.33
	Retailer	184	941	13.9	3.88
Vegetarian	Takeaway	144	1370	24.4	7.01
	Restaurant	94	1017	18.2	5.12
	Manufacturer	36	986	16.8	4.00
	Retailer	109	895	14.8	3.28
Vegan	Takeaway	42	1449	29.6	7.14
	Restaurant	67	872	14.9	5.29
	Manufacturer	13	858	9.4	3.76
	Retailer	9	865	10.9	3.73

APPENDIX 5. Average nutrition content of pizzas surveyed, split by company and sorted highest to lowest for salt content

A. Restaurant, takeaway and delivery companies (nutrition content displayed per pizza)

	Company Name	(n)	Average Energy/Pizza (kcal)	Average Saturated Fat/Pizza (g)	Average of Salt/Pizza (g)
Takeaway	Dominos	426	1616	31.1	10.03
	Papa John's	79	1793	36.9	9.91
	Caprino's	51	1540	29.6	7.16
	Pizza Hut (Delivery)	88	1255	21.7	5.20
Restaurant	O'Neill's	11	1268	24.9	6.72
	JDWetherspoons	7	1141	16.1	6.71
	Pizza Hut	83	1111	20.3	6.45
	ASK Italian	26	1099	19.0	5.98
	Stonehouse Pizza & Carvery	12	1289	20.8	5.67
	Zizzi	32	1112	26.0	5.30
	Fireaway	24	1023	17.3	5.13
	Pizza Express	92	901	12.4	5.00
	Bella Italia	40	863	17.4	4.43

B. Retailers and manufacturers (nutrition content displayed per 100g)

Company Name	(n)	Average Energy /100g (kcal)	Average Saturated fat /100g (g)	Average Salt /100g (g)
Zizzi Restaurants Ltd	4	234	3.6	1.65
Freiberger	2	262	5.0	1.45
Franco Manca	4	223	2.8	1.36
Bakkavor	2	275	4.7	1.28
Crosta & Mollica	9	234	2.8	1.24
The Pizza Company	5	269	4.1	1.22
Iceland	31	264	4.6	1.18
Cosmo Products Ltd	2	217	2.9	1.15
Gino d'Acampo	2	257	3.4	1.15
Carluccio's	4	254	3.1	1.10
Schar UK Ltd	1	230	5.0	1.10
Aldi	30	260	4.3	1.03
Marks & Spencer	28	240	3.4	1.03
Dr. Oetker	10	231	3.5	1.03
Wicked Kitchen	2	271	2.8	1.00
Pizza Express	13	239	3.4	1.00
Sainsbury's	52	249	3.4	0.99
Lidl	26	252	4.1	0.99
Waitrose	21	259	3.9	0.96
Tesco	34	251	3.7	0.96
Asda	31	250	4.0	0.96
Chicago Town	20	259	4.9	0.95
The Co-operative	16	246	3.9	0.93
Morrisons	33	252	4.0	0.91
Kraft Heinz	1	217	2.5	0.9
Kirsty's	3	221	1.4	0.81
Goodfella's	28	231	3.7	0.78
The Gym Kitchen	2	181	1.7	0.70

APPENDIX 6. Average salt content of pizzas surveyed in both 2014 and 2023, split by restaurant and takeaway establishment

Company	Number of products	Average Salt content /pizza 2014	Average Salt content/pizza 2023	Percentage Difference
ASK Italian	9	2.40	5.03	-110%
Domino's	268	7.97	10.29	-29%
Papa John's	33	9.87	10.29	-4%
Pizza Express	12	4.85	4.93	-2%
Zizzi	7	6.24	5.86	6%
Pizza Hut (Restaurant)	34	5.27	6.00	-14%
Pizza Hut (Delivery)	25	5.73	5.29	8%
Total	388	7.49	9.22	-23%

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- [7] [Action on Salt Pizza Survey 2014](#)
- [8] [Statista Report Market size of the fast food and takeaway industry in the UK 2013-2023](#)
- [9] In 2022 pizza was named the UK's [most popular takeaway](#) with a reported 3.8% growth
- [10] [Action on Salt Pizza Survey 2012](#)
- [11] [FoodSwitch](#) is a free smartphone app which allows you to scan the barcodes of food and drink products and instantly see whether they are high, medium or low in fat, saturated fat, sugar and salt. It also searches the database for similar but healthier alternative products, making it easier to switch to healthier food choices.
- [12] [Public Health England Calorie Reduction Targets](#)
- [13] PHE salt reduction targets
- [14] EU Regulation No. 1169/2011 on the provision of food information to consumers (EU FIC), stipulates in point 3 of the Article 31, Section 2, Chapter IV Mandatory Food Information that “The energy value and the amounts of nutrients referred to in Article 30(1) to (5) shall be those of the food as sold”. Therefore, as per the regulation our salt value per 100g is declared on the product as sold, even though the salt reduction targets for pizzas are as consumed.
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