

"Low Risk" Reference Levels				
Arsenic	Cadmium	Lead	Mercury	
µg/day	µg/day	µg/day	µg/day	
6.8	22.6	3.6	2.3	7 Year Old
12.2	40.8	6.5	4.1	12 Year Old
21.0	70.0	11.2	7.0	Adult

Heavy Metal Data Analysis												
Sample ID	Sample Description	Sample Size in Ounces	Sample Size in kg	Arsenic µg/entre	Cadmium µg/entre	Mercury µg/entre	Lead µg/entre	Limit of Detection	Limit of Detection	Limit of Detection	Limit of Detection	
								1.9 to 2.3 µg/kg	1.1 to 1.3 µg/kg	1.7 to 2.0 µg/kg	0.8 to 1.0 µg/kg	
								Limit of Quantitation	Limit of Quantitation	Limit of Quantitation	Limit of Quantitation	
								8.7 to 10.0 µg/kg	2.5 to 3.0 µg/kg	8.7 to 10.0 µg/kg	2.5-3.0 µg/kg	
								Arsenic µg/kg or PPB	Cadmium µg/kg or PPB	Mercury µg/kg or PPB	Lead µg/kg or PPB	
								21.0	70.0	11.2	7.0	Adult
S10961	PIZZA HUT - Pepperoni and cheese pizza- extra pepperoni	8.00	0.23	D	4.49	ND	D	D	19.8	ND	D	
S10962	PIZZA HUT - Vegetable topped pizza	9.50	0.27	2.61	4.90	ND	0.81	9.7	18.2	ND	3	
S10963	TACO BELL - Beef taco supreme	3.00	0.09	D	1.22	ND	0.69	D	14.3	ND	8.1	
S10964	TACO BELL - Chicken and cheese quesadilla	5.30	0.15	D	1.95	ND	1.22	D	13	ND	8.1	
S10965	KFC - Fried chicken breasts	8.00	0.23	D	0.84	ND	0.82	D	3.7	ND	3.6	
S10966	KFC - Fried chicken sandwich	8.00	0.23	D	2.47	ND	0.91	D	10.9	ND	4	
S10967	IN-N-OUT BURGER - Cheese burger	6.30	0.18	D	2.43	ND	D	D	13.6	ND	D	
S10968	IN-N-OUT BURGER - Fries	3.33	0.09	ND	5.47	ND	0.73	ND	57.9	ND	7.7	
S10971	PANERA BREAD - Steak and cheddar sandwich	14.50	0.41	D	4.81	ND	D	D	11.7	ND	D	
S10972	PANERA BREAD - Deli ham sandwich	12.00	0.34	D	7.35	ND	D	D	21.6	ND	D	
S10973	JACK IN THE BOX - Bacon cheese burger with lettuce, onions and tomato	6.30	0.18	ND	2.43	ND	D	ND	13.6	ND	D	
S10974	JACK IN THE BOX - Fries	3.66	0.10	D	5.03	ND	D	D	48.5	ND	D	
S10975	CHIPOTLE - Carnitas bowl with everything	35.00	0.99	17.36	10.72	ND	5.95	17.5	10.8	ND	6	
S10976	CHIPOTLE - Beef burrito with cheese	20.00	0.57	8.96	5.78	ND	D	15.8	10.2	ND	D	
S10977	POPEYES LOUISIANA KITCHEN - 5 piece tenders	10.33	0.29	D	3.66	ND	1.00	D	12.5	ND	3.4	
S10978	POPEYES LOUISIANA KITCHEN - Spicy Chicken Sandwich	8.00	0.23	D	1.93	ND	0.84	D	8.5	ND	3.7	
S10979	SONIC DRIVE-IN - Cheese Burger	8.00	0.23	D	1.95	ND	10.34	D	8.6	ND	45.6	
S10980	SONIC DRIVE-IN - Fries	3.00	0.09	D	4.68	ND	D	D	55	ND	D	
S10981	LITTLE CAESARS - Pepperoni pizza	23.00	0.65	D	12.00	ND	2.67	D	18.4	ND	4.1	
S10982	LITTLE CAESARS - Sausage pizza	23.00	0.65	D	12.39	ND	2.48	D	19	ND	3.8	
S10983	DUNKIN - Breakfast sandwich - sausage, egg and cheese	8.00	0.23	D	1.11	ND	0.91	D	4.9	ND	4	
S10984	DUNKIN - Glazed Donut	2.13	0.06	D	1.12	ND	D	D	18.6	ND	D	
S10985	PANDA EXPRESS - Orange Chicken + White Rice	16.00	0.45	16.42	2.04	ND	D	36.2	4.5	ND	D	
S10986	PANDA EXPRESS - Beef and broccoli with fried rice	16.00	0.45	14.51	4.76	ND	D	32	10.5	ND	D	
S10987	DAIRY QUEEN - FlameThrower Grillburger	6.30	0.18	D	1.89	ND	D	D	10.6	ND	D	
S10988	DAIRY QUEEN - Fries	4.30	0.12	D	4.50	ND	D	D	36.9	ND	D	
S10989	WENDY'S - Chicken Sandwich	8.00	0.23	ND	2.81	ND	D	ND	12.4	ND	D	
S10990	WENDY'S - Cheese Burger	7.60	0.22	D	2.48	ND	D	D	11.5	ND	D	
S10993	DOMINO'S - Pepperoni cheese pizza - extra pepperoni	14.40	0.41	D	7.35	ND	D	D	18	ND	D	
S10994	DOMINO'S - Pepperoni cheese pizza Gluten Free crust - extra pepperoni	13.00	0.37	8.18	6.52	ND	1.47	22.2	17.7	ND	4	
S11004	BURGER KING - Impossible Burger	8.00	0.23	D	3.08	ND	1.34	D	13.6	ND	5.9	
S11005	BURGER KING - Quarter Pounder with lettuce and tomato and cheese	8.00	0.23	D	2.15	ND	0.93	D	9.5	ND	4.1	
S11006	STARBUCKS - Double-Smoke Bacon, Cheddar and Egg Sandwich	5.33	0.15	D	1.99	ND	0.60	D	13.2	ND	4	
S11007	SUBWAY - Cold Cut Combo - Footlong	16.00	0.45	D	4.58	ND	1.59	D	10.1	ND	3.5	
S11008	SUBWAY - Veggie Delight - Footlong	12.00	0.34	D	7.65	ND	1.22	D	22.5	ND	3.6	
S11009	STARBUCKS - Impossible Breakfast Sandwich	5.33	0.15	D	1.28	ND	0.68	D	8.5	ND	4.5	
S11010	CHICK-FIL-A* - Chicken sandwich	6.33	0.18	D	1.62	ND	D	D	9	ND	D	
S11011	CHICK-FIL-A* - Chicken nuggets	2.33	0.07	D	0.29	ND	D	D	4.4	ND	D	
S11016	MCDONALD'S - Big Mac - Beef, Lettuce, Pickle, American Cheese	7.60	0.22	D	6.59	ND	D	D	30.6	ND	D	
S11017	MCDONALD'S - Breakfast egg sausage and cheese sandwich	5.33	0.15	D	1.48	ND	0.47	D	9.8	ND	3.1	
S11027	ARBY'S - Classic Chicken Sandwich	6.60	0.19	D	3.50	ND	0.65	D	18.7	ND	3.5	
S11028	ARBY'S - Roast Beef & Cheddar Sandwich	6.30	0.18	D	2.16	ND	D	D	12.1	ND	D	

Reference Values taken from the Review:
 Review of regulatory reference values and background levels for heavy metals in the human diet, Candace Wong, Stephen M. Roberts, Imad Neal Saab, Regulatory Toxicology and Pharmacology 130 (2022) 105122
<https://doi.org/10.1016/j.vrtph.2022.105122>
 This Review considered risk analyses conducted by the following:
 Joint FAO/WHO Expert Committee on Food Additives JECFA
 US Environmental Protection Agency EPA
 Agency for Toxic Substances and Disease Registry ATSDR
 European Food Safety Authority EFSA
 Food and Drug Administration FDA

Reference Values for Heavy Metals		
		µg/kg body weight/day
Inorganic Arsenic		0.3
Cadmium		1
Lead	Children 11.4	0.26
	Adult 80 kg	0.16
Mercury		0.1