

Food category, major nutrients and obesity

This idea aims to analyze the nutrients contents like fat, saturated fat and cholesterol in dairy products so as to determine if their consumption leads to obesity. By doing this analysis we can make better food choice next time picking dairy products. This analysis will help cut down on the consumption of dairy products and and contribute towards a healthier lifestyle.

Goals:

Which dairy is least healthy and most related to obesity in all age?

First we plan to get the nutrients value of the dairy products, than we are going to check the annual consumption of those nutrients in an age demographic. Lastly, we are going to see the obesity rate corresponding to age.

For this project, three datasets were used:

1.(NIH)[https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity\(2017-2018\)](https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity(2017-2018))

Data Brief 360. Prevalence of Obesity and Severe Obesity Among Adults: United States, 2017–2018

Data table for Figure 1. Prevalence of obesity among adults aged 20 and over, by sex and age: United States, 2017–2018

Sex	Age group			
	20 and over	20–39	40–59	60 and over
Percent (standard error)				
Total	42.4 (1.8)	40.0 (2.6)	44.8 (1.9)	42.8 (2.5)
Men	43.0 (2.7)	40.3 (3.8)	46.4 (3.2)	42.2 (3.3)
Women	41.9 (2.0)	39.7 (2.7)	43.3 (2.7)	43.3 (3.0)

NOTES: Estimates for adults aged 20 and over were age adjusted by the direct method to the 2000 U.S. Census population using the age groups 20–39, 40–59, and 60 and over. Crude estimates are 42.5% for total, 43.0% for men, and 42.1% for women.

SOURCE: NCHS, National Health and Nutrition Examination Survey, 2017–2018.

2.<https://www.ars.usda.gov/northeast-area/beltsville-md-bhnrc/beltsville-human-nutrition-research-center/food-surveys-research-group/docs/fndds-download-databases/>

Ingredient Nutrient Values				
2019-2020 Food and Nutrient Database for Dietary Studies - At A Glance				
Ingredient code	Ingredient description	Nutrient code	Nutrient description	Nutrient value
1001	Butter, stick, salted	202	Protein	0.85
1001	Butter, stick, salted	204	Total Fat	82.2
1001	Butter, stick, salted	205	Carbohydrate	0.06
1001	Butter, stick, salted	208	Energy	743
1001	Butter, stick, salted	221	Alcohol	0
1001	Butter, stick, salted	225	Water	15.8
1001	Butter, stick, salted	262	Caffeine	0
1001	Butter, stick, salted	263	Theobromine	0
1001	Butter, stick, salted	266	Lipids, total	0.58
1001	Butter, stick, salted	291	Fiber, total dietary	0
1001	Butter, stick, salted	301	Calcium	21
1001	Butter, stick, salted	303	Iron	0.06
1001	Butter, stick, salted	304	Magnesium	2
1001	Butter, stick, salted	305	Phosphorus	22
1001	Butter, stick, salted	306	Potassium	23
1001	Butter, stick, salted	307	Sodium	324
1001	Butter, stick, salted	309	Zinc	0.07
1001	Butter, stick, salted	312	Copper	0.006
1001	Butter, stick, salted	317	Selenium	0
1001	Butter, stick, salted	319	Retinol	744
1001	Butter, stick, salted	320	Vitamin A, RAE	758
1001	Butter, stick, salted	321	Carotene, beta	168
1001	Butter, stick, salted	322	Carotene, alpha	2
1001	Butter, stick, salted	323	Vitamin E (alpha-tocopherol)	0
1001	Butter, stick, salted	328	Vitamin D (D2 + D3)	0.4
1001	Butter, stick, salted	334	Cryptoxanthin, beta	8
1001	Butter, stick, salted	337	Lycopene	0
1001	Butter, stick, salted	338	Lutein + zeaxanthin	0

3.<https://www.ers.usda.gov/data-products/food-consumption-and-nutrient-intakes.aspx>

Nutrient intake by food source and demographic characteristics, 2015–16 and 2017–18										
Nutrient group	Total	At home	Away from home					Total	At home	Total
			Total	Restaurant	Fast food	School	Other			
2015–16										
Energy (calories)										
Total population ¹	2048.24	1369.60	678.64	178.61	330.94	34.62	134.47	2093.14	1402.55	690.60
Children age 2–19	1868.78	1180.14	688.64	112.21	291.52	144.01	140.91	1894.42	1231.77	662.66
Adults age 20–64 ²	2187.00	1444.17	742.83	208.91	396.53	NA	137.40	2207.05	1446.14	760.91
Seniors age 65 and above ³	1798.29	1374.88	623.41	164.91	144.65	NA	113.85	1955.41	1493.11	462.30
Household income < 185% poverty line	1992.09	1373.99	618.10	133.58	292.65	51.88	139.99	2032.53	1378.77	653.76
Household income 185–300% poverty line	2029.01	1375.25	653.75	158.30	315.88	34.39	145.18	2160.13	1528.84	631.25
Household income > 300% poverty line	2110.72	1362.92	747.79	230.84	374.38	18.06	124.50	2126.73	1379.73	747.00
Calcium (mg)										
Total population ¹	956.45	665.64	290.80	60.10	132.56	27.36	70.79	968.02	680.48	287.55
Children age 2–19	979.17	651.15	328.01	35.79	121.70	113.81	56.72	973.21	672.11	301.10
Adults age 20–64 ²	978.78	673.35	305.43	70.28	157.16	NA	77.99	987.60	675.74	311.86
Seniors age 65 and above ³	838.77	658.54	180.23	58.49	56.79	NA	64.95	884.85	711.37	173.48
Household income < 185% poverty line	919.40	652.70	266.70	46.10	112.99	41.58	66.03	934.46	669.56	264.85
Household income 185–300% poverty line	977.16	692.03	285.13	53.18	127.12	29.73	75.10	981.60	716.26	265.34
Household income > 300% poverty line	983.19	666.69	316.50	76.59	153.78	12.62	73.51	995.09	677.99	317.10
Cholesterol (mg)										
Total population ¹	282.09	183.76	98.33	33.27	45.13	3.73	16.21	287.39	187.71	99.68
Children age 2–19	225.12	142.12	83.01	19.89	33.53	15.50	14.09	225.08	148.80	76.28
Adults age 20–64 ²	312.65	198.70	113.95	40.03	56.49	NA	17.43	314.48	200.48	114.00
Seniors age 65 and above ³	253.18	190.30	62.88	28.05	20.01	NA	14.82	277.40	197.43	79.96
Household income < 185% poverty line	276.89	186.93	87.97	26.75	38.15	5.76	17.31	271.60	182.97	88.63
Household income 185–300% poverty line	293.38	197.01	96.27	28.30	44.83	3.75	19.40	297.09	209.05	88.04
Household income > 300% poverty line	282.24	173.03	109.22	41.71	51.98	1.76	13.76	298.94	184.55	114.38