



## ESTIMATES OF CONSUMPTION OF CONFECTIONERY PRODUCTS IN THE AVERAGE DAILY DIETS OF THE POPULATION IN THE SUMMER-AUTUMN SEASON

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***Аннотация:** Давлатимизнинг муҳим сиёсий устувор йўналишларидан бири соғлом овқатланишнинг тиббий жиҳатларини ривожлантириши бўлиб, аҳоли истеъмол қиладиган озиқ-овқатларнинг сифатини, ва ҳолатини, шунингдек овқатланиш билан боғлиқ бўлган касалликларнинг тарқалиши ва аҳолининг турли гуруҳларида саломатлик ҳолатини доимий назорат (мониторинг) қилишни таъминлашдан иборатдир*

***Аннотация:** Одним из направлений государственной политики является разработка медицинских аспектов здорового питания, которая предусматривает осуществление постоянного наблюдения за качеством питания населения, пищевым статусом, а также распространенностью алиментарно-зависимых заболеваний и состоянием здоровья различных групп населения. Эта задача тесно связана с реализацией системы социально-гигиенического мониторинга, является ее обязательной составной частью в плане разработки критериев качества питания и здоровья населения, точек приложения мониторинга.*

**Relevance of the topic:** By changing the content and ratio of certain food components supplied with functional products, it is possible to regulate many metabolic processes occurring in organs and tissues through direct or indirect effects on cellular and nuclear receptors, hormonal-enzyme systems, processes of absorption and excretion, thereby by catalyzing or inhibiting the corresponding metabolic processes, the microbial population of the gastrointestinal tract, which should lead to a positive modification of the physiological functions of the body, reducing the effect of damaging factors, restoring the balance between the environment and the internal environment of the body, reducing the manifestation of symptoms of maladaptation. Modern nutritional science has many effective ways to restore physical disability and mental activity. These include an appropriate diet and balanced nutrition in general. From a scientific point of view, it is necessary to



adhere to healthy eating rules. At the same time, nutritionists note the special role of confectionery products, both from the point of view of the principles of healthy nutrition and food safety.

**Purpose of the work:** Assess the actual consumption of various types of confectionery products in different regions of the Republic among the urban and rural population by season. Analysis of the nutritional and biological value of the main types of confectionery products produced by industrial and artisanal methods and development of risk assessment criteria at control critical points in the production and sale of confectionery products according to microbiological, chemical, sanitary-hygienic and radiological indicators.

**Results obtained:** Actual nutrition was studied by the method of frequency and 24-hour recall, recommended by WHO for epidemiological studies with adaptation for Uzbekistan, questionnaires developed by us and approved by the Ministry of Health in 140 households of Tashkent, Samarkand region, 210 volunteer students of the Tashkent Medical College. When assessing the adequacy of nutrition, the norms of physiological needs for energy and nutrients for different age and sex groups of the Republic of Uzbekistan, as well as the norms of nutrient consumption according to the FAO/WHO scale, were taken as reference values.

As an analysis of the average daily food consumption in the study sites shows, for all types of products there are deviations from the rational nutrition standards adopted in Uzbekistan in the summer-autumn season (Table 1), except for coffee, tomato paste and spices.

**Assessment of food consumption in the average daily diets of the adult population in the studied regions, in the summer-autumn season, in comparison with rational standards, g/day, M±m**

**Table 1.**

Product Name	Samarkand region		Tashkent	College students in Tashkent	Rational norms	P
	city	village				
Legumes	10,0±0,2	12, 0±0,2	15, 0±0,3	5,0±0,2	15,0	<0,01
Wheat flour	55,5±1,5	63,0±1,8	60,0±1,4	40,0±1,6	20,0	<0,01
Rice	45,0±1,8	43,0±1,9	42,8±1,6	34,0±1,6	50,0	<0,01
Cereals (without rice)	4,5±1,1	3,5±1,0	12,4±1,4	10,0±1,1	20,0	<0,01



Wheat bread	352,5±15,5	433,0±18,8	324,2±14,6	225,0±13,6	250,0	<0,01
Rye bread	15,2±1,2	10,2±1,1	45,2±1,5	33,2±1,2	80,0	<0,01
Bread made from other grains	50,4±152	20,0±1,1	35,0±1,5	23,2±1,2	absent	
Pasta	36,6±1,1	32,0±1,0	44,4±1,2	43,0±1,0	30,0	<0,01
Potato	152,4±11,5	163,0±11,8	240,0±7,2	270,0±1,6	200,0	<0,01
Cabbage	25,5±1,2	44,0±1,7	54,2±1,6	23,2±1,1	50,0	<0,01
cucumbers	11,0±0,5	13,6±0,8	12,2±1,1	5,0±0,6	50,0	<0,01
Tomatoes	13,0±0,8	26,0±1,5	14,2±1,3	3,5±0,6	50,0	<0,01
Beet	6,0±0,3	8,0±0,8	6,5±0,7	2,5±0,2	30,0	<0,01
Carrot	22,5±1,8	25,0±1,5	24,2±1,4	63,0±1,6	50,0	<0,01
Onion	14,4±1,1	16,0±1,2	18,5±1,1	12,0±1,0	40,0	<0,01
Other vegetables	11,0±0,5	16,0±0,8	12,2±1,1	4,0±0,6	60,0	<0,01
Total vegetables	103,4±3,3	148,8±3,8	142,0±3,6	113,2	200,0	<0,01
Melons	16,5±1,3	43,0±1,5	34,2±1,5	23,0±1,2	50,0	<0,01
Pumpkin	15,2±1,2	23,0±1,3	14,2±1,0	6,0±1,0	30,0	<0,01
Fresh fruits and berries	25,0±1,1	42,0±178	54,2±1,4	33,0±1,2	200,0	<0,01
dried	5,0±0,5	8,0±0,8	4,2±0,4	6,0±0,6	20,0	<0,01
Fresh grapes	15,5±1,0	45,0±1,8	20,0±1,3	12,0±1,0	30,0	<0,01
Citrus	2,5±0,5	3,0±0,8	5,2±0,4	5,0±0,6	15,0	<0,01
Beef	30,0±1,5	32,0±1,0	34,2±1,3	23,0±1,6	60,0	<0,01
Mutton	52,0±1,4	33,0±1,0	24,2±1,4	21,0±1,2	30,0	<0,01
Rabbit meat	1,5±0,5	6,0±0,8	2,2±0,4	000	25,0	<0,01



offal	11,5±0,5	8,0±0,8	12,2±0,4	6,1±0,4	absent	
Bird house.	45,1±1,2	53,0±1,3	44,4±1,5	33,0±1,2	70,0	<0,01
Fresh fish	15,5±0,5	12,0±0,7	20,0±1,4	5,0±0,6	35,0	<0,01
Fish products	16,0±0,5	6,0±0,6	22,0±1,5	4,0±0,4	30,0	<0,01
Whole milk	90,0±1,6	73,0±2,5	131,±1,5	60,0±1,3	400,0	<0,01
Sour cream, cream	5,0±0,5	10,0±1,1	14,2±1,2	10,0±0,6	15,0	<0,01
Animal oil	5,5±0,5	8,0±0,8	8,2±0,6	6,0±0,6	30,0	<0,01
Cottage cheese	14,5±1,1	15,0±1,0	20,1±1,1	13,0±1,0	30,0	<0,01
Cheese, feta cheese	4,5±0,5	6,0±0,8	14,5±1,3	8,0±0,6	20,0	<0,01
Eggs (pieces)	0,5±0,1	0,6±0,08	0,5±0,04	0,5±0,06	1,0	<0,01
Sugar	24,0±0,5	20,0±0,8	28,0±0,6	20,0±1,0	30,0	<0,01
chocolate	2,0±0,05	1,0±0,07	4,0±0,4	5,0±0,5	absent	
Caramel candy	1,5±0,4	2,0±0,06	5,0±0,4	2,0±0,06	absent	
iris	1,0±0,05	2,0±0,08	2,0±0,4	2,0±0,6	absent	
dragee	1,5±0,05	1,2±0,07	2,0±0,4	2,0±0,06	absent	
Oriental sweets (category includes: halva, Turkish delight)	2,5±0,05	2,0±0,07	2,5±0,4	2,0±0,06	absent	
marmalade	2,0±0,04	1,5±0,07	2,8±0,4	2,0±0,06	absent	
navat	10,5±0,4	16,0±0,6	20,0±1,0	5,0±0,4	absent	
Flour confectionery products (cakes, pastries)	10,0±0,5	15,0±0,5	10,0±0,6	20,0±0,6	absent	
Sugar with confectionery count	47,5±0,5	54,0±0,7	66,0±1,5	48,5±0,9	30,0	<0,01
Honey	6,0±0,3	4,4±0,2	5,0±0,4	2,0±0,2	20,0	<0,01



Margarine	10,0±0,5	9,0±0,7	12,0±1,2	4,0±0,6	5,0	<0,01
Vegetable oil	34,5±2,5	40,0±3,0	33,0±2,4	25,0±1,6	25,0	<0,01
Iodine salt.	8,5±1,5	10,0±1,7	8,8±1,4	8,0±1,6	5,0	<0,01
tea	4,4±0,5	5,0±0,5	6,0±0,6	4,0±0,5	2,0	<0,01
coffee	1,5±0,05	1,0±0,07	1,5±0,04	2,0±0,06	2,0	≥0,01
Tomato paste	1,0±0,5	1,2±0,6	2,0±0,4	2,0±0,3	3,0	≥0,01
Spices	1,5±0,05	2,0±0,07	2,0±0,04	2,0±0,06	2,0	≥0,01
Calorie kcal.	2651,6±15	2840,7±16,8	2797,7±14	2070,0±16,0	3104,4	<0,01
Squirrels	98,8±8,5	98,0±6,6	107,1±7,4	70,1±5,0	118	<0,01
Fats	85,5±5,5	91,7±6,7	95,6±7,5	72,0±5,6	119,5	<0,01
Carbohydrates	388,9±8,8	488,9±8,8	488,9±14,2	373,37±11,6	561,2	<0,01
Ratios B:F:U	1:0,9:4,2	1:0,9:4,8	1:0,9:4,3	1:1,1:5	1:1:4	

According to the research results, for the first time in Uzbekistan, data were obtained characterizing the consumption of confectionery products by type of product. Sugar consumption, excluding confectionery products, in Samarkand in the summer-autumn season was  $24.0 \pm 0.5$  grams per day, or 9.2 kg per year. Converting confectionery products to sugar or 17.3 kg per year. In Tashkent in the summer-autumn season, sugar consumption was  $28.0 \pm 0.6$  g per day, or 10.2 kg per year.

With the conversion of confectionery products  $66.0 \pm 1.5$  g/day or 24 kg per year.

**Conclusion:** At a low level of adherence to the principles of rational nutrition, the energy intensity of carbohydrates in the average daily diets in the studied objects is high, while the energy intensity of proteins is low. This provision indicates the need to develop measures to ensure the safety of confectionery products according to a modern system from “farm to dastarkhan”.



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