

HEALTHY NUTRITION for CHILDREN in PRIMARY EDUCATION



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PREFACE

Nutrition is one of the most important factors in protecting and developing human health beginning from the pregnancy stage of the mother. Healthy, satisfactory and balanced nutrition is essential for everybody, especially for children, because nutritional habits that are made in our early ages turn out to be our lifetime habits.

Infancy, childhood and adolescence periods, as being periods of rapid growth and development, are important stages for the making of good, healthy and satisfactory nutritional habits. Growth and development is deeply related with various factors like nutrition, genetic structure, gender, environment, socio-economic position, culture and traditions. It is not always possible to control genetic and environmental factors, but at least by making conscious nutritional habits beginning from childhood, we can make a strong effect on our health, happiness and the quality, length and productivity of our life.

“While healthy nutrition is the basis of healthy childhood, healthy childhood in its turn is the basis of healthy life”. This is the motto with which the Ministry of Health and the Ministry of Education of Republic of Turkey started a program called “Nutritional Training in Primary Education”. We expect to make an important contribution to the nutritional education of our children with this book which is published with the joint efforts of the Ministry of Health of Republic of Turkey and the Baskent University.

I strongly hope that this book will be useful for our children, and their teachers and families. And I would like to thank to esteemed academician Prof. Dr. Nilgün Karaağaoğlu from the Department of Nutrition and Dietetics of Faculty of Health Sciences of Baskent University and all those who have made a contribution to the preparation of this book.

Professor Recep AKDAĞ, MD
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AM I HAVING A HEALTHY DIET?

Dear students, do you remember the first days of your school life when your parents were coming to school with you in order to give support? Nowadays, your parents are surely not coming to your school with you as they used to do in those days. You are in a completely new environment with your friends and teachers. Besides, you are rapidly growing up and learning new things.

And you are also eating outside your home much more than you did before you go to school. At this point let me ask you a question: Do you know what and how much you have to eat to get a healthy nutrition, or do you just eat because you feel hungry and you want to taste your favourite dishes? Are all dishes healthy and helpful for you? How many times a day you eat something? What are the nutrients in your foods and why are they necessary for you? Does your eating habit affect your happiness, your health and your strength and success?

In short, if you have questions about your nutrition and if you want to regulate your nutrition consciously you will find useful information in this book. When you learn this information and practice what you learn, you will soon get healthy nutritional habits which will create a good effect on your present and future health.

FOODS AND NUTRIENTS



We can divide all of the foods necessary for our survival into two major groups according to their sources:

- 1) Animal products such as, milk, eggs, cheese, meat, poultry, fish,
- 2) Herbal products such as vegetables, fruits, lentils, beans, wheat.

All of these foods contain various materials that contribute our body in different ways. These materials are called nutrients. Nutrients are carbohydrates, fats, vitamins, minerals and water. Our body is composed of these materials too. For the proper functioning of our organs and for the continuation of our daily activities our body needs each of these nutrients every day. The more or less we have these nutrients effects our health closely. Therefore we must be very careful about the types and amounts of nutrients we have.

NUTRIENTS

Proteins

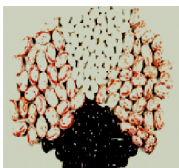
Our growth and development depends on the increase of the numbers of cells in our body. We need proteins for the production of our cells. Cells come together to form our organs and tissues. Proteins are also essential for our immune system which protects us from diseases.



What happens if we do not get enough proteins?

- our growth and development slows down
- we easily get sick
- our illnesses last longer
- health of our tissues like hair, skin and nails is affected badly
- functioning of our organs is seriously harmed.

- Animal proteins like those contained in milk, yogurt, meat and eggs are easily transformed into body proteins
- Having sufficient amount of protein in our diet is essential for our growth and development
- Having more than enough protein in our diet is harmful for our body.



Herbal proteins like those contained in beans, lentils and wheat are also useful proteins .

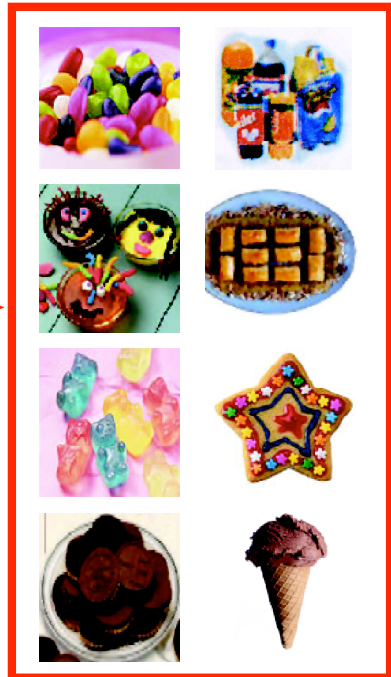
Carbohydrates

Most of the energy we need for the operation of our body is provided by carbohydrates.

Some carbohydrates have simple structures. These are the ones which give us a sweet taste. For example, simple sugar that we add to our tea or coffee can be included to this group.

If you are not sufficiently active in your daily life and do not exercise much, you cannot spend all of the energy coming from these carbohydrates which are rich in sugar content. A diet which contains a lot from this group causes fatness. Moreover, these foods can easily be dissolved in our blood causing a decrease in our appetite which means that we cannot eat other useful foods. And also it is not right for our health to eat foods which belong to this group before our main meals.

Candies, waffles, sweet drinks, chocolates, biscuits, sweet pastries, wafers and other foods containing sugar are rich in simple carbohydrates, so they provide too much energy.



Foods containing sugar have negative effects on our dental health as well. The most important factor of tooth decays is excess consumption of these foods.



TO PROTECT YOUR DENTAL HEALTH

- Do not eat much foods having excessive sugar content.
- Brush your teeth at least twice a day



Some carbohydrates have complex structures. They don't have sweet taste and they are found in the structure of herbal foods like starch and fiber.

Complex carbohydrates dissolve in our blood gradually, so they help us to have a stable blood sugar which is good for our health.

Fiber is necessary for digestive system. Consuming foods that are rich in fiber content protects us against many diseases. Peas, lentils, beans, vegetables and fruits contain fiber.

In order to have enough fiber

- We must eat foods that are rich in fiber content everyday



- We must eat thoroughly washed vegetables and fruits like apples and cucumbers without peeling,

Fats

Fats are the highest energy sources among the nutrients. They are divided into two: Liquid and solid fats.

Liquid fats are produced from certain herbs like olives, corns, nuts, soybeans.

Solid fats are mainly margarine and butter. Red meats, sausages, salami and ham contain solid fat as well. Eating excessive amounts of these foods is harmful for our cardiovascular health.



Mayonnaise, creamy foods, fatty meats, salamis, sausages, chocolates, foods with chocolate and all of the foods which are fried with oil contain excessive amount of oil.



Small amount of oil we add to our dishes while cooking and the fat which already exists in the structure of certain foods is quite sufficient for us.

Eating butter on bread, soaking your bread in oil or having excessive amounts of foods which are rich in fat increases your fat intake.

What happens if we have too much fat?

- We have unnecessary extra energy
- It affects our cardiovascular health negatively
- Our blood composition degenerates
- Solid fats are especially dangerous for our cardiovascular health

Vitamins

Vitamins are necessary for the protection of our body from illnesses and for the stable functioning of our body.



There are different vitamins in the compositions of different foods. Fresh vegetables and fruits are the best vitamin sources. Especially vitamin A taken from these foods is essential for the growth and development of our body. Vitamin A also helps us to see well. Vitamin C protects us against illnesses like flu and is also necessary for our gingivitis.



Vitamin D is needed for the health of our bones. If we expose our body to sunshine for a sufficient time, then we can utilize from vitamin D that we have taken from our foods much more efficiently.

Group B vitamins are needed for blood production and for the proper functioning of muscle and nerves system. All of these vitamins are found in different foods in different proportions.

If we eat all types of foods in sufficient amounts in a balanced diet, we can take the necessary vitamins for our body.



Minerals

Greatest amount of mineral found in our body is calcium. It is essential for our bone and tooth health. Best sources of calcium are milk and milk products. If we do not consume adequate amount of milk, yogurt and cheese each day, then we cannot meet our calcium requirements.



What happens if our calcium intake is not enough?

- Our bones and teeth will not be strong enough
- Since bones will grow at a slower pace, our height will be shorter
- The operation of our muscle and nerves system will slow down

There are other minerals in our body which are little in amount but very effective. One of them is iron. It is generally found in foods such as meat, egg, bean, chick-pea, lentil and dark green leafy vegetables. In order to benefit from our iron intake, we must also take enough vitamin C with it. Therefore, we must be careful about consuming in each one of our meals a food which belongs to either fruit group or vegetable group which are rich in vitamin C content.

What happens if we have iron deficiency?

- Our blood composition degenerates and we encounter with a medical condition which is called anaemia. Our tissues cannot get sufficient oxygen.
- We feel tired and exhausted.
- Our concentration decreases and we begin having difficulty in learning.
- We easily get sick.



Tea, coffee, coke and chocolate consumption with your meals decreases the benefits you get from iron. But if you like them very much, then you should consume them in small amounts and before or after 1 or 1.5 hours of your meals. Besides, this negative effect diminishes if you drink a light tea with lemon.



Water

We need to drink 2 -2.5 L of water each day for the normal functioning of our body. Generally, in order to meet most of our water requirement, we drink about 1-1.5 L of normal water and some other drinks. We provide rest of our water requirement unconsciously from other foods which contain water.



The water we drink is disposed by sweat, urine and stools. Our body also disposes a small amount of water though respiration. Our water disposal is high in warm weather and during physical training. On the other hand, when we have diarrhea we dispose a lot of water with stools.

If our body loses too much water, we have to drink enough water to meet the necessary requirement of our body. Otherwise our cells cannot function well.

LET'S LEARN ABOUT OUR FOODS

There are four main food groups according to the similar nutrients they contain. These are:



1. Milk Group
2. Meat- Egg- Bean Group
3. Fresh Vegetable and Fruit Group
4. Bread and Cereal Group



Below, you will learn which foods are included to each group; which important nutrients those foods provide us and what should be the amount of food we must eat totally in one day? You should eat those amounts of foods given in the boxes in one day, as a sum total of all meals.

1. Milk Group



The foods in this group:

Milk,
Yogurt
Cheeses
Buttermilk
Milk powder
Deserts made with milk (like ice cream).

What important nutrients they provide us?

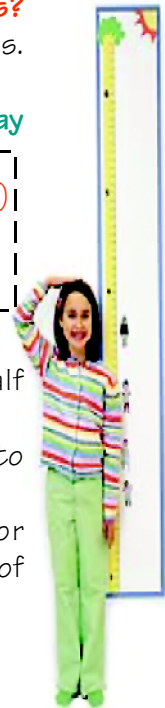
Calcium, protein, vitamin D, some B group vitamins.

The recommended amount of consumption for a day

350-450 gram milk or yogurt (about 2-3 glasses)
+
30 gram cheese (about 1 matchbox size)

You must also keep in mind that:

- A glass of buttermilk is equivalent to half glass of yogurt
- A portion of desert made of milk is equivalent to one glass of milk
- If you do not consume a glass of milk or yogurt in one day, you should eat 30 grams of cheese.



2. Meat - Egg - Bean group



The foods in this group:

Red meats (sheep or cow)

White meats (Chicken, turkey, fish)

Eggs

Beans (lentil, bean and pea)

Meat products (sausage, ham, salami)

What important nutrients they provide us?

Protein, iron and some B group vitamins.

In addition to the above mentioned benefits, beans are also rich in fiber content.

The recommended amount of consumption for a day

Meat, chicken, fish, turkey: size of 2-3 pieces of meatballs

+

1 egg: 3-4 times in a week

+

3-4 servings of beans in a week

- When you don't eat eggs, you must eat meat, chicken or fish, having the size of 1 piece of meatball.
- To have enough fiber, you must eat beans
- When you eat beans, lentils and peas, you can decrease your meat consumption.

3. Fruit and Vegetable Group



The foods in this group:

All vegetables: Foods such as tomatoes, carrot, cucumber, aubergine, fresh pepper, leek, broccoli, cabbage, spinach, celery root, potato, parsley, dill, lettuce belong to this group.

All fruits: Foods such as apple, orange, strawberry, berry, peach, grape, banana belong to this group.

What important nutrients they provide us?

They provide vitamins such as C and A, minerals and fiber.

The recommended amount of consumption for a day

You should eat  five servings of these foods in a day.

- You eat raw at least three servings of these foods (either salads or fruits) in a day your vitamin intake increases.
- In order to have totally five servings per day, you may eat one serving of either a vegetable or fruit in each breakfast, dinner and lunch and also two servings in snacks.

4. Bread and Cereal Group



The foods in this group

Breads made of wheat, rye, oat, corn, pasta, cereal, noodle, sago and rice belong to this group.

What important nutrients they provide us?

They provide carbohydrates, minerals, fiber and some B group vitamins.

The recommended amount of consumption per day

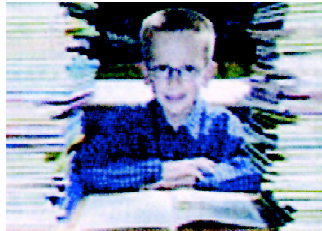
4-6 pieces of bread (200-300 gram)
+
1 serving of rice, pasta (6-8 spoon) or one piece of pastry
+
1 cup of cereal soup

- For each one of excess servings of rice, pasta or pie, you should give up eating one of your bread slices.
- Eating 4-6 pieces of biscuit or 1 - 1.5 packages of cracker is equivalent to eating 1 piece of bread
- If you are overweight be careful about eating excessive amounts of above mentioned foods.

OUR MEALS

In order to have a balanced and healthy diet your daily food consumption from each food groups must be divided into 3 meals and 2 snacks.

Breakfast, lunch and dinner are the main meals. Other than these main meals you must also have two snacks per day: One between breakfast and lunch and the other between lunch and dinner. Missing one of them, especially the main meals, will degenerate your food regime.



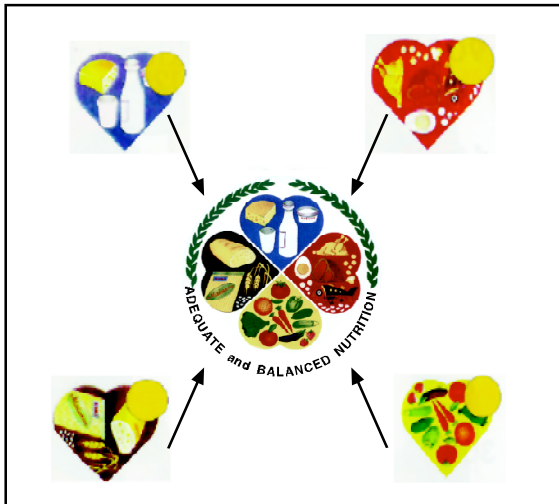
Breakfast

Breakfast is the most important meal of the day, because it comes after an all night long hunger. You feel better ourselves after a good breakfast. It also increases your learning capacity. It is generally accepted that, children coming to school without having a breakfast are less successful in their school life. Therefore you must be very careful about having your breakfast before going to school.



LET'S PLAN A MENU

We must be careful about including foods from each one of the four food groups to our main meals to ensure increasing the benefit our body gets from these nutrients. If you check again which foods belong which food groups you can choose right alternatives for your meals.



Below, different alternatives are given for breakfasts, lunches and dinners. With the help of your mother you can prepare balanced menus for each meal with the foods in your kitchen. Thus you can make healthy eating habits by sharing your knowledge with your parents.

If you have your meals in your school cafeteria, then you can work out best solutions with your friends, teachers and school managers for a healthy nutrition.

If your school doesn't have a cafeteria where lunch and snacks are served, then you can prepare your foods at home and take them with you to school.

SAMPLE MENUS FOR THE MAIN MEALS

BREAKFAST

cheese, boiled eggs, fresh fruit juice, bread	milk pastry tangerine
milk boiled eggs tomatoes and cucumbers bread	omelette with cheese tomatoes and cucumbers bread linden tea
toast with cheese fresh fruit juice	milk halvah-bread apple
<ul style="list-style-type: none">• If your weight is not too much you can add honey and jam to your menus• You can make changes in the fruits and vegetables given in the above menus according to the season you are in	

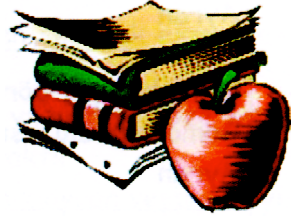
If you want to have a different breakfast you can eat cereals with milk.

BUT, DO NOT FORGET TO EAT FRUITS WITH THEM!



WHAT ARE THE FOODS THAT WE MUST EAT AT SNACKS

Foods that you prefer at snacks when you are in school or especially when you come home from school and feel hungry while you study or rest is important for the amount of your energy intake. If you eat foods which contain a lot of sugar or fat you will have an unnecessary amount of extra energy.



Fruits, buttermilk, milk, fresh fruit juices, cheese sandwich, small cakes or pastry are good choices at snacks for a much more healthy nutrition. When you want to have dessert at snacks best choices are desserts made with milk such as rice puddings.



LUNCH or DINNER

haricot beans wheat dish salad buttermilk	courgette with minced meat pasta yogurt
pastry with minced meat tomato salad buttermilk	lentil soup stuffed vegetables and yogurt fruits
roasted chicken rice carrot-iceberg salad	meatballs with mashed vegetables string beans rice pudding




If there is a cafeteria in your school which regularly serves lunch, it is better to eat there to get a healthy and balanced nutrition

What must you do if lunch is not served at the school?

You can prepare your school nutrition bag including foods from each one of the four food groups. You must note that liquid foods are difficult to carry from home to school in your lunch box. Healthy sandwiches like the ones below offer a good alternative for you:

- You can put in your sandwich foods given in the first group below.
- Vegetables and fruits in the second group will meet your vitamin needs.
- A glass of milk or buttermilk that you can buy from school canteen will be a good option.

First Group	Second Group
<p>Boiled egg Cheese Grilled meatball Boiled chicken Boiled meat</p>	<p>You can choose thoroughly washed fresh fruits and vegetables which best fit season:</p>  <p>(tomato, cucumber, lettuce, carrot, tangerine, apple, grape, cherry, plum etc.)</p>
<p>• Consuming dried fruits such as hazelnut, walnut in addition to them is a good option to support your energy, protein and mineral intake.</p>	

Sometimes, a toast and a buttermilk or milk that you can buy from your school canteen can be a good choice for your lunch. But when you use such an option don't forget to bring a vegetable or fruit in your nutrition bag from home.



Don't forget! Your lunch box must be cleaned thoroughly everyday.

WHAT ARE THE SAFE FOODS?

Safe foods are clean, uncontaminated foods which do not include unhealthy substances. Unpackaged foods are not clean and may become rancid. Therefore:

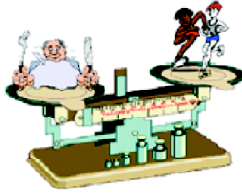
- Do not buy unpackaged foods,
- Do not eat vegetable and fruits unless you wash them thoroughly,
- Be careful about the expiration dates of the foods,
- Keep foods that could be easily deteriorated in the refrigerator.



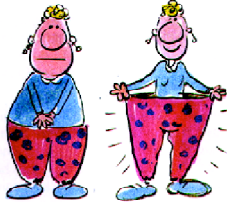
Moreover, the plates, forks, spoons and glasses we use must be clean. Before and after the meals you must wash your hands with a soap.



WHAT IS THE ENERGY BALANCE?



We provide energy from our daily foods and drinks. When energy intake is excess, we gain weight which leads to an unhealthy condition called obesity. On the other hand, if the energy we provide is less than our consumption, then we begin losing weight giving way to an unhealthy condition called malnutrition.

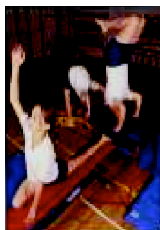


We consume our energy with activities like walking, sitting and sports. Besides, we need energy for the operation of our organs such as brain, heart and kidney and for the repair of tissues and for our growth.

In order to preserve our weight we must get a balanced and healthy nutrition, exercise and be careful about not having a sedentary life style. Having an active and sportive way of life is important for our heart-vessel and bone health.

Therefore, you must be very careful about having an active way of life.

Instead of wasting your time with computer games or watching TV;



- You can make sports that you like, such as swimming, basketball and tennis,
- You can play active games or bike with your friends in secure fields such as parks, gardens or you can jog,
- You can go for walks with your family,
- You can walk, for reasonable ranges, instead of taking a vehicle,
- You can use stairs instead of an elevator,
- You can be more enthusiastic at gym classes at school.



Apart from our daily activities; there are various periods in our life in which energy requirements of our body decrease or increase. For example:

- Because of the fast growth of the body in infancy and childhood periods, energy requirements of the body are high,
- Energy requirement of girls is less than the energy consumed by the boys,
- Infectious diseases increase the energy requirements of the body.
- Those who have a more muscle tissue, consume more energy for the functioning of their body,
- Those who have a fatty body consume less energy for the functioning of their body,
- Sportive persons consume more energy for the functioning of their body.



EVALUATION OF GROWTH ACCORDING TO AGE

By a sufficient and balanced diet and an active life, you can have a body weight and height which is appropriate to your hereditary characteristics.

There are some standards for the evaluation of your body height and weight with respect to your age.

You can use the tables given at the back pages for evaluating your weight and height.

In these tables values from 5 to 95 percentile your height and weight are given for each age.



Normal values are printed in blue. The values which are under or above the normal values are printed in red.

You can compare your height with the values given in **Table 1** and compare your weight with the values given in **Table 2**.



Evaluating height and weight separately may not give an idea about the whole picture and may mislead us. Therefore there is a better evaluation method which is called as Body Mass Index and designated as BMI.

How Can We Calculate Body Mass Index?

First of all, have your body height measured by one of your parents and write it on a paper in order not to forget. Then find a correct scale to learn your body weight.

For the calculation, write your body length in the unit of metres and find out the square of it (to find out the square of a number, multiply the number by itself). Then divide your body weight to the number you find. And then compare the number you found with the numbers in **Table 3**.

For example: Let's think of a 9 years old boy. His height is 113 cm, his weight is 36 kilograms.

- His height is 1.13 metres
- To find out the square of it, you must multiply this number by itself

- $1.13 \times 1.13 = 1.27$

- **Body Mass Index (BMI): $\frac{36 \text{ kilogram}}{1.27 \text{ m}^2} = 28.34$**

Find 28.34 in table. You can see that it is above the 95 percentile in the Table 3 which indicates obesity.

If the number you find for yourself is in the red area of the table (which indicates abnormal values) you must discuss the problem with your family. Your family may apply to a medical institution in order to find the real causes of this problem.

Table 1. Height Measurements of 6-13 Years Old Age*

Age (year)	Percentiles (cm)						
	5	10	25	50	75	90	95
Boy							
6.0	107.7	109.6	112.5	116.1	119.2	121.9	123.5
6.5	110.4	112.3	115.3	119.0	122.2	124.9	126.6
7.0	113.0	115.0	118.0	121.7	125.0	127.9	129.7
7.5	115.6	117.6	120.6	124.4	127.8	130.8	132.7
8.0	118.1	120.2	123.2	127.0	130.5	133.6	135.7
8.5	120.5	122.7	125.7	129.6	133.2	136.5	138.8
9.0	122.9	125.2	128.2	132.2	136.0	139.4	141.8
9.5	125.3	127.6	130.8	124.8	138.8	142.4	144.9
10.0	127.7	130.1	133.4	137.5	141.6	145.5	148.1
10.5	130.1	132.6	136.0	140.3	144.6	148.7	151.5
11.0	132.6	135.1	138.7	143.3	147.8	152.1	154.9
11.5	135.0	137.7	141.5	146.4	151.1	155.6	158.5
12.0	137.6	140.3	144.4	149.7	154.6	159.4	162.3
12.5	140.2	143.0	147.4	153.0	158.2	163.2	166.1
13.0	142.9	145.8	150.5	156.5	161.8	167.0	169.8
Girl							
6.0	106.6	108.4	111.3	114.6	118.1	120.8	122.7
6.5	109.2	111.0	114.1	117.6	121.3	124.2	126.1
7.0	111.8	113.6	116.8	120.6	124.4	127.6	129.5
7.5	114.4	116.2	119.5	123.5	127.5	130.9	132.9
8.0	116.9	118.7	122.2	126.4	130.6	134.2	136.2
8.5	119.5	121.3	124.9	129.3	133.6	137.4	139.6
9.0	122.1	123.9	127.7	132.2	136.7	140.7	142.9
9.5	124.8	126.6	130.6	135.2	139.8	143.9	146.2
10.0	127.5	129.5	133.6	138.3	142.9	147.2	149.5
10.5	130.4	132.5	136.7	141.5	146.1	150.4	152.8
11.0	133.5	135.6	140.0	144.8	149.3	153.7	156.2
11.5	136.6	139.0	143.5	148.2	152.6	156.9	159.5
12.0	139.8	142.3	147.0	151.5	155.8	160.0	162.7
12.5	142.7	145.4	150.1	154.6	158.8	162.9	165.6
13.0	145.2	148.0	152.8	157.1	161.3	165.3	168.1

* NCHS-National Center For Health Statistics

Table 2. Body Weight Measurements of 6-13 Years Old Age*

Age (year)	Percentiles (kg)						
	5	10	25	50	75	90	95
Boy							
6.0	16.93	17.72	19.07	20.69	22.40	24.31	26.34
6.5	17.78	18.62	20.02	21.74	23.62	25.76	28.16
7.0	18.64	19.53	21.00	22.85	24.94	27.36	30.12
7.5	19.52	20.45	22.02	24.03	26.36	29.11	32.73
8.0	20.40	21.39	23.09	25.30	27.91	31.06	34.51
8.5	21.31	22.34	24.21	26.66	29.61	33.22	36.96
9.0	22.25	23.33	25.40	28.13	31.46	35.57	39.58
9.5	23.25	24.38	26.68	29.73	33.46	38.11	42.35
10.0	24.33	25.52	28.07	31.44	35.61	40.80	45.27
10.5	25.51	26.78	29.59	33.30	37.92	43.63	48.31
11.0	26.80	28.17	31.25	35.30	40.38	46.57	51.47
11.5	28.24	29.72	33.08	37.46	43.00	49.61	54.73
12.0	29.82	31.46	35.09	39.78	45.77	52.73	58.09
12.5	31.64	33.41	37.31	42.27	48.70	55.91	61.52
13.0	33.64	35.60	39.74	44.95	51.79	59.12	65.02
Girl							
6.0	16.05	16.72	17.86	19.52	21.44	23.89	25.75
6.5	16.85	17.51	18.76	20.61	22.68	25.50	27.59
7.0	17.71	18.39	19.78	21.84	24.16	27.39	29.68
7.5	18.62	19.37	20.95	23.26	25.90	29.57	32.07
8.0	19.62	20.45	22.26	24.84	27.88	32.04	34.71
8.5	20.68	21.64	23.70	26.58	30.08	34.73	37.58
9.0	21.82	22.92	25.27	28.46	32.44	37.60	40.64
9.5	23.05	24.29	26.94	30.45	34.94	40.61	43.85
10.0	24.36	25.76	28.71	32.55	37.53	43.70	47.17
10.5	25.75	27.32	30.57	34.72	32.44	37.60	40.64
11.0	27.24	28.97	32.49	36.95	42.84	49.96	54.00
11.5	28.83	30.71	34.48	39.23	45.48	53.03	57.42
12.0	30.52	32.53	36.52	41.53	48.07	55.99	60.81
12.5	32.30	34.42	38.59	43.84	50.56	58.81	64.12
13.0	34.14	36.35	40.65	46.10	52.91	61.45	67.30

* NCHS-National Center For Health Statistics

Table 3. Boys and girls body mass index for 6-13 years

Age (year)	Percentiles (kg/m ²)								
	5	10	15	25	50	75	85	90	95
Boy									
6.0-6.9	13.7	14.1	14.3	14.8	15.3	16.4	17.2	18.0	19.3
7.0-7.9	13.7	14.1	14.3	14.9	15.6	16.7	17.5	18.2	19.5
8.0-8.9	13.8	14.3	14.6	15.0	15.9	17.1	18.0	19.1	21.1
9.0-9.9	14.1	14.6	14.8	15.3	16.3	17.7	19.0	19.9	21.8
10.0-10.9	14.6	15.0	15.3	15.8	17.1	18.7	19.8	21.2	23.4
11.0-11.9	14.7	15.1	15.7	16.2	17.4	19.8	21.5	22.5	25.3
12.0-12.9	15.2	15.7	16.1	16.7	17.9	20.2	21.7	23.7	25.8
13.0-13.9	15.6	16.4	16.6	17.2	18.7	20.7	22.2	24.0	25.9
Girl									
6.0-6.9	13.5	13.7	13.9	14.3	15.2	16.2	17.0	17.5	18.7
7.0-7.9	13.7	14.1	14.2	14.7	15.4	16.8	17.5	18.3	19.6
8.0-8.9	13.8	14.1	14.4	14.9	15.8	17.4	18.7	19.8	21.7
9.0-9.9	14.0	14.6	14.8	15.3	16.5	18.1	19.8	21.5	23.3
10.0-10.9	14.0	14.5	15.0	15.6	16.9	18.9	20.7	22.0	24.1
11.0-11.9	14.8	15.3	15.6	16.3	18.1	20.3	21.8	23.4	26.2
12.0-12.9	15.0	15.6	16.2	17.0	18.9	21.2	23.1	24.6	27.0
13.0-13.9	15.4	16.3	16.7	17.7	19.4	22.2	23.8	25.2	28.6

* NCHS-National Center For Health Statistics

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