MINISTRY OF HEALTH OF UKRAINE

ODESA NATIONAL MEDICAL UNIVERSITY

Departments of Pediatrics №2

CONFIRMED by

Vice-rector for research and educational work

_____ Svitlana KOTYUZHYNSKA

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METHODOLOGICAL RECOMMENDATIONS ON PRACTICAL CLASSES FOR STUDENTS

International Medical Faculty, course 6

Educational discipline "**PEDIATRICS**"

Approved
at the meeting of the department of Pediatrics №2
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Head of the department of Pediatrics №2 _____ Tetiana STOIEVA
Signature

Authors:
Head of the department of Pediatrics №2, MD, PhD in Pediatrics, DM, Professor Stoieva Tetiana
Associate Professor of the department of Pediatrics №2, PhD in Pediatrics Prokhorova Svitlana
Associate Professor of the department of Pediatrics №2, PhD in Pediatrics Titkova O. V.
Associate Professor of the department of Pediatrics №2, PhD in Pediatrics Portnova O. O.
Associate Professor of the department of Pediatrics №2, PhD in Pediatrics Vesilyk N. L.
Associate Professor of the department of Pediatrics №2, PhD in Pediatrics Godlevska T. L.
Assistant of the department of Pediatrics №2, PhD in Pediatrics Fedin M. V.
Assistant of the department of Pediatrics №2, PhD in Pediatrics Jagiashvili O. V.
Assistant of the department of Pediatrics №2, PhD in Pediatrics Reshetilo O.V.
Assistant of the department of Pediatrics №2, PhD in Pediatrics Soboleva H. B.
Assistant of the department of Pediatrics №2 Bratkova L. B.

1. Topic No. 3

Medical observation of children of the first three years of life in the polyclinic. The procedure for mandatory preventive examinations of a child under the age of three. Rational feeding and nutrition of a child under the age of three. Assessment of problems of natural feeding in the context of Integrated management of childhood diseases.

Medical observation of children of the first three years of life in the polyclinic. Assessment of physical and psychomotor development of a child up to three years of age. Peculiarities of observation of premature children and those born with low birth weight. Tactics of a general practitioner in case of physical and neuropsychological development disorders of children in the first three years of life. Principles of effective counseling.

Medical observation of children of the first three years of life in the polyclinic. Differential diagnosis and prevention of the most common deficiency conditions (rickets, iron-deficiency anemia, protein-energy deficiency) in infants. Preventive vaccinations for children under three years of age.

2. Relevance of the topic. Medical supervision of a young child is a set of measures carried out by medical workers with the involvement of the family in accordance with the needs of each age period of the child's development, aimed at creating optimal conditions for its healthy harmonious development in a favorable safe environment, at ensuring rational feeding and nutrition, preventing diseases and injuries, the formation of healthy lifestyle skills.

3. Lesson objectives:

3.1. Common goals:

1. To get acquainted with the current goal and procedure for mandatory medical preventive examinations of children under the age of 3 years.

2. To get acquainted with modern ideas about feeding / nutrition of young children.

4. To get acquainted with the methods of assessing anthropometric indicators and constructions and graphs of the child's physical development.

3.2. Educational goals: To get acquainted with the contribution of domestic scientists in the study of the problem of feeding young children, monitoring the psychophysical development of young children; be able to explain to the mother the need for regular preventive examinations of the child.

3.3. Specific goals:

- *know:*

1. The purpose and procedure for mandatory medical preventive examinations of children under the age of 3 years.
2. Principles of feeding / feeding young children.
3. Methods for assessing anthropometric indicators and constructions and graphs of the child's physical development, assessing the psychomotor development of a child in the first three years of life.
4. Interpretation of the graphs of the child's physical development.
5. Methodology for counseling mothers on care for the development of the child.
6. Analyze various clinical options and complications during dispensary observation of healthy and sick children in the clinic.
7. To determine the tactics of a general practitioner in violation of the physical and neuropsychic development of children of the first 3 years.
8. Issue medical documentation for a healthy child.
9. To carry out prenatal nursing of pregnant women, nursing of newborn children.

3.4. Based on theoretical knowledge on the topic:

- *master the techniques / be able to /:*

1. Examination and clinical examination of a sick child.

2. Assessments of the physical development of the child according to the nomograms of sigma deviations by age.

3. Assessments of the child's psychomotor development in accordance with age.

4. Assessment of the child's sexual development in accordance with age.

5. Palpation of the skin, subcutaneous tissue, soft tissues, abdomen, blood vessels.

6. Determination of characteristics and heart rate.

7. Percussion of the lungs, heart, abdomen.

8. Auscultation of the lungs, heart, abdomen.

9. Measurement of blood pressure in the upper and lower extremities.

10. Evaluation of laboratory research data.

11. According to the approximate scheme for the introduction of foods and foods for complementary foods during natural feeding of 1-year-old children, carry out the feeding correction (if necessary).

12. Determine the "risk group" for social factors and prescribe certain adjustments (if necessary and possible).

13. Provide parental counseling depending on the identified problems.

14. Make a medical conclusion about the child's health, record it in the history of the child's development.

15. Assess the state of organization and equipment of the office of a healthy child, office of preventive vaccinations.

16. To issue the necessary medical documentation for the dispensary contingent of children.

17. To carry out active calls to sick children, active visits and patronage to pregnant women and newborns at the site.

4. Materials for classroom self-study (interdisciplinary integration).

Disciplines	**To know**	**To be able to do**
1. Preliminary (disciplines that provide): - anatomy	Features of the anatomical structure of organs and systems in children	Assess the physiological structure of organs and systems in children
- pathological anatomy	Pathological changes in various diseases in children	Determine pathological changes in various diseases in children
- pathological physiology	Pathophysiological changes in various diseases in children	Determine pathophysiological changes in various diseases in children
- radiology	X-ray signs of various forms of growth pathology in children	Interpret X-ray data to assess the compliance of bone marrow with passport age in children
- pediatric propedeutics	APF organs and systems in children Child examination method	Conduct a clinical examination of the child
- pediatrics, module No. 4	Etiology, pathogenesis, clinic, diagnosis and treatment of diseases at the outpatient stage in children	Justify the clinical diagnosis on the basis of clinical examination

		data, laboratory and instrumental studies
2. The following disciplines (which are provided this discipline) postgraduate pediatrics (internship)	Etiology, pathogenesis, clinic, diagnosis, differential diagnosis and treatment of children at the outpatient stage. Preventive examinations of children of different ages.	Justify the clinical diagnosis on the basis of clinical examination data, laboratory and instrumental studies. Determine the tactics of treatment and prevention. Provide assistance in case of emergency
3. Intra-subject integration (topics of this discipline, with which the one being studied is integrated): - neonatology, endocrinology.	Features of the physical development of a newborn child, depending on the gestational age - signs of perinatal damage to the central nervous system - signs of adreno-genital syndrome - signs of the child's gender - signs of congenital hypothyroidism.	- Assess the state of physical development of a newborn child, depending on the gestational age. - Determine the signs of perinatal lesions of the central nervous system. - Determine the signs of adrenogenital syndrome. - Determine the signs of violations of the sexual development of a newborn child. - Determine the signs of congenital hypothyroidism.

5. Content of the topic. The procedure for compulsory preventive examinations of a child under the age of three.

The purpose of preventive examinations	determination of the health status of children and the implementation of effective measures to protect the health and development of children of this age group
Health measures	• assessment of the state of health of each child; • assessment of feeding and nutrition; • assessment of physical and psychomotor development; • vaccination; • timely detection of diseases and pathological conditions; counseling parents on child care, balanced nutrition, child development, prevention of accidents and injuries, etc .; • determination of tactics for further medical observation and examination of the child based on the results of the mandatory medical preventive examination.

List of components of early childhood care that should be available to every child:
• compulsory preventive medical examination;
• rational feeding and nutrition;

• developmental care;
• creation of a safe environment.

Terms of compulsory medical examinations	Child's age (months)
Doctor	1, 2, 3, 4, 5, 6, 9, 12, 18, 24, 36
Nurse	7, 8, 10, 11
The number of inspections cannot be less! If abnormalities in the child's health are found, the doctor may increase the frequency of examinations and prescribe additional consultations and examinations justified in the medical record in writing, coordinating them with the child's parents or legal representatives of the parents.	

The main tasks of compulsory preventive medical examinations of a healthy child under the age of 3 years

Initial examination of the child by a doctor at home after the child is discharged from obstetric institutions	
Goal	**Obtaining primary information about the child and a family, assessing the state of her health with subsequent counseling.**
Main tasks	*1. To find out: obstetric history (during pregnancy and childbirth), the presence of bad habits in parents. Collect an allergic history. Pay attention to the social status of the family.* *2. Examination of organs and systems, to assess the state of health of the child,* ***pay special attention to****:* • *the presence of congenital anomalies, stigma of dysembryogenesis; discharge from the eyes* • *condition of the skin and mucous membranes;* • *assessment of reaction to sound and light;* • *palpation of the pulse in the femoral arteries;* • *assessment of muscle tone and spontaneous motor activity;* • *reflexes of a newborn;* • *the state of the umbilical wound, umbilical remnant (umbilical ring)* • *body temperature of the newborn;* *assessment of the hip joints for the presence of congenital dislocation, dysplasia;* • *the presence of testicles in the scrotum.* *3. Evaluate feeding, correct attachment to the breast, effectiveness, safety.*
Targeted counselling	1. Exclusive breastfeeding. 2. The basics of newborn care: - emotional contact of the family with the child; - observance of the thermal regime in order to prevent hypothermia of the newborn; - care of the umbilical wound, umbilical cord; - other hygiene issues. 3. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 4. Prevention of rickets. 5. Parents should be provided with information about the work schedule of a doctor (paramedic), nurse, healthcare institution, emergency and ambulance numbers.
Examination of the child during the neonatal period by a nurse at home	

Goal	Dynamic monitoring of the child's health, monitoring the implementation of the doctor's recommendations, assessing the feeding of the child, strengthening the skills of the mother and family in feeding and caring for the child for development, counseling.
Main goals Targeted counseling	*1. Collecting data for registration and filling in the history of the child's development (f. 112o).* *2. Assessment of health status.* ***Pay special attention to:*** *- the condition of the skin, mucous membranes;* *- breathing rate;* *- the state of the umbilical wound (umbilical remnant, umbilical ring)* *- Assessment of muscle tone and spontaneous motor activity;* *- discharge from the eyes;* *- the frequency and nature of stool, urination.* *3. Evaluation of feeding, its effectiveness and safety.* *Prevention of sudden death syndrome.* *Feeding a baby.* *Newborn care.* *Signs that threaten the life of a child, in the event of which you should immediately seek the help of a medical professional.* *Care for development.*
Examination of a child at the age of 1 month by a doctor on an outpatient basis	
Main tasks	*1. Inspection by organs and systems. Assess the child's health. Emphasize on* *- the condition of the skin and mucous membranes;* *- clinical signs of infection.* ***Pay special attention to:*** *- the presence of regurgitation, vomiting after feeding (exclusion of pyloric stenosis)* *- Assessment of the hip joints (exclusion of dysplasia, dislocation)* *- the presence of testicles in the scrotum;* *- the presence of torticollis;* *- Assessment of muscle tone and spontaneous motor activity;* *Assessment of the reaction to sound and light.* *2. Assessment of the BCG sign.* *3. Evaluation of feeding.* *4. Assessment of the physical development of the child.* *5. Assessment of the child's psychomotor development.* *6. Control of the receipt and interpretation of the results of screening for phenylketonuria and congenital hypothyroidism, carried out in obstetric institutions.* *7. Vaccination with the informed consent of the mother.* *8. Prevention of rickets.*
Targeted consulting	1. Exclusive breastfeeding. 2. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 3. The need for vaccination and information about possible complications in the post-vaccination period. 4. Caring for a child for the purpose of development. 5. Prevention of rickets.
Examination of a child at the age of 2, 3, 4, 5 months by a doctor on an outpatient basis	

Main tasks	*1. Overview of organs and systems. Assess the child's health. Emphasize on* *- symmetry of movements, muscle tone* *- clinical signs of infection;* *- signs of rickets, anemia.* ***Pay particular attention to:*** • *Examination of the hip joints at 2, 3, 4, 5 months, with suspicion of pathology - consultation with a pediatric orthopedic traumatologist;* • *the presence of testicles in the scrotum, if cryptorchidism is suspected, consultation with a pediatric endocrinologist and a pediatric urologist;* • *the presence of hernias, in case of suspicion of their presence - consultation with a pediatric surgeon.* *2. Assessment of the BCG sign.* *3. Evaluation of feeding.* *4. Assessment of the physical development of the child.* *5. Assessment of the child's psychomotor development.* *6. Vaccination with the informed consent of the mother.*
Examination of a child at the age of 6 months by a doctor on an outpatient basis	
Main tasks	*Inspection by organs and systems. Assess the child's health, pay attention to:* *- clinical signs of infection;* *- signs of rickets, anemia* *- the presence of teeth.* ***Pay particular attention to:*** *- an overview of the hip joints, if pathology is suspected* *- consultation with a pediatric orthopedic traumatologist;* *- the presence of testicles in the scrotum, with suspicion of cryptorchidism, consultation with a pediatric endocrinologist and a pediatric urologist.* *- the presence of hernias, in case of suspicion of their presence - consultation with a pediatric surgeon.* *2. Assessment of the BCG sign.* *3. Evaluation of feeding, introduction of adequate complementary feeding.* *4. Assessment of the physical development of the child.* *5.Evaluation of the child's psychomotor development*
Targeted consulting	1. Feeding and nutrition of the child, the introduction of complementary foods. 2. Care for development. 3. Advising on vaccination. 4. Prevention of injuries and accidents. 5. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 6. Prevention of rickets and anemia.
Examination of a child at the age of 7, 8, 10, 11 months by a nurse on an outpatient basis	
Goal	*Dynamic monitoring of the child's health, counseling.*
Main tasks	*1. Assessment of health status.* ***Pay special attention to:*** • *the condition of the skin and mucous membranes (pallor, cyanosis)* • *breathing rate;* • *clinical signs of infection;* • *signs of rickets, anemia* • *the frequency and nature of stool, urination.* *2. Evaluation of feeding and nutrition of the child.* *3. Assessment of the physical development of the child.*

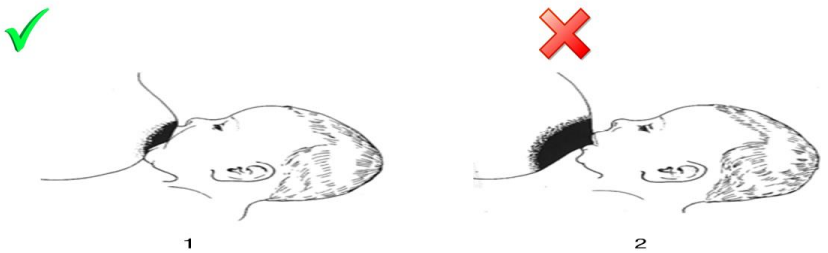
	4. Assessment of the child's psychomotor development. *5. Immediate notification of the doctor in case of revealing signs of deviation from the standard indicators of the child's physical development, lag in psychomotor development and clinical symptoms of the disease.*
Targeted consulting	1. Feeding and nutrition. 2. Care for development. 3. Prevention of injuries and accidents. 4. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 5. Preventive vaccinations.
Examination of a child at the age of 9 months by a doctor on an outpatient basis	
Goal	*Dynamic monitoring of the child's health, counseling, screening tests to identify anemia.*
Main tasks	*1. Inspection by organs and systems. Assess the child's health, pay attention to:* • *clinical signs of infection;* • *signs of rickets, anemia* • *the presence of teeth.* ***Pay particular attention to:*** *- an overview of the hip joints, if a pathology is suspected - consultation with a pediatric orthopedic traumatologist;* *- the presence of testicles in the scrotum, with suspicion of cryptorchidism, consultation with a pediatric endocrinologist and a pediatric urologist.* *the presence of hernias, if their presence is suspected - consultation with a pediatric surgeon.* *2.Laboratory examination: determination of the level of hemoglobin in blood with the informed consent of the mother.* *3. Assessment of the BCG mark.* *3. Evaluation of feeding and nutrition.* *4. Assessment of the physical development of the child* *5. Assessment of the child's psychomotor development.*
Examination of a child at the age of 1 year by a doctor on an outpatient basis	
Main tasks	*1. Anamnesis for the first year of life.* *2. Assessment of health status. Overview of organs and systems.* ***Pay special attention to:*** • *clinical signs of infection;* • *signs of anemia* • *the number of teeth in case of violation of the timing of teething, pathological changes in the formation of bite, etc. - consultation with a pediatric dentist (orthodontist) with the informed consent of the mother;* • *condition of the foot, assessment of the course;* • *signs of urological and surgical pathology (cryptorchidism, phimosis, hernia).* *2. Assessment of the BCG sign.* *3. Evaluation of feeding and nutrition.* *4. Assessment of the physical development of the child.* *5.Evaluation of the child's psychomotor development* *6. Registration of the milestone epicrisis.*
Targeted consulting	1. Rational feeding and nutrition. 2. Care for development

	3. Prevention of injuries and accidents 4. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 5. Preventive vaccinations.
Examination of a child at the age of 18 months by a doctor on an outpatient basis	
Main tasks	*1. Assess the state of health. Overview of organs and systems.* ***Pay special attention to:*** • *signs of infection;* • *signs of anemia* • *the condition of the foot;* • *the number and condition of teeth, occlusion, signs of urological and surgical pathology (cryptorchidism, phimosis, hernia).* *2. Evaluation of feeding and nutrition.* *3. Assessment of the physical development of the child.* *4. Assessment of the child's psychomotor development.*
Targeted consulting	1. Rational feeding and nutrition. 2. Care for development 3. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 4. Prevention of injuries and accidents. 5. Preventive vaccinations.
Examination of a child at the age of 2 years on an outpatient basis by a doctor	
Main tasks	*1. Assess the state of health. Overview of organs and systems.* ***Pay special attention to:*** • *clinical signs of infection;* • *signs of anemia;* • *the condition of the foot;* • *the number and condition of teeth, occlusion;* • *signs of urological and surgical pathology (cryptorchidism, phimosis, hernia).* *2. Evaluation of nutrition* *3. Assessment of the physical development of the child.* *4. Assessment of the child's psychomotor development.* *5. Registration of a milestone epicrisis.*
Targeted consulting	1. Rational nutrition. 2. Care for development. 3. Prevention of injuries and accidents. 4. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 5. Tuberculin diagnostics and preventive vaccinations.
Examination of a 3-year-old child by a doctor on an outpatient basis	
Goal	*Dynamic monitoring of the child's health, counseling*
Main tasks	*1. Assess the state of health. Overview of organs and systems.* ***Pay special attention to:*** • *clinical signs of infection;* • *signs of anemia* • *the condition of the foot;* • *posture;* • *the number and condition of teeth, occlusion, signs of urological and surgical pathology (cryptorchidism, phimosis, hernias).*

	2. Evaluation of nutrition. *3. Assessment of the physical development of the child.* *4. Assessment of the child's psychomotor development.* *5. Registration of a milestone epicrisis.*
Targeted consulting	1. Rational nutrition. 2. Care for development. 3. Prevention of injuries and accidents. 4. Signs that threaten the life of the child, in the event of which you should immediately seek help from medical professionals. 5. Tuberculin diagnostics and preventive vaccinations.

Rational feeding and nutrition of a child under the age of 3 years.

The best form of breastfeeding for a baby under 6 months of age is exclusive breastfeeding**.**

Breast-feeding	
Health benefits of breastfeeding	
Children	**Mothers**
- less likely to suffer from infectious and allergic diseases, - have a lower risk of developing otitis media, diarrhea, sudden death syndrome and in older age bronchial asthma, obesity, - have the best indicators of mental development.	- have a lower risk of contracting diseases (breast and ovarian cancer).
Basic rules for successful breastfeeding - To put the baby on the mother's breast during the first hour of life, if there are no contraindications. - Round-the-clock joint stay of a mother with a child. - Correct attachment of the baby to the mother's breast. - Breastfeeding at the request of the child, including at night. - Do not give a baby under 6 months of age any other foods or liquids unless medically indicated. - Do not use pacifiers, pacifiers. - Exclusively breastfeeding for up to 6 months. - Mandatory introduction of adequate complementary foods from 6 months. - Continuing breastfeeding for up to 1 year, and if possible longer.	
Signs of correct attachment of the baby to the mother's breast - the child's head and body are in the same plane; - the child's body is pressed against the mother, facing the breast, the nose is opposite the nipple; - the mother supports the whole body of the child from below, and not only his head and shoulders; - the mother supports the breast from below with her fingers while the index finger is below and the thumb is on top (fingers should not be close to the nipple) - first, the mother should touch the baby's nipple with the nipple and wait for the baby to open his mouth wide, and then quickly bring the baby closer to the breast, directing her lower lip below the nipple so that the baby grabs the lower part of the areola; - the position of the mother should be comfortable for her. - signs of effective sucking: the child has a slow, deep sucking with short interruptions.	
 1 2	

A child under 6 months should receive only breast milk, there is no physiological need for the introduction of additional liquid into the diet in the form of water, tea (black, green or herbal), juices, decoctions, and the like.

Significant signs of insufficient breastmilk intake

• weight gain less than 500 g per month;

• urination of the child less than 6 times a day, the urine is yellow concentrated with a pungent odor.

Age periods when a baby may need more breast milk:

• 3 weeks;

• 6 weeks

• 3 months.

This is due to the intensive growth of the child during these age periods, which requires more frequent attachment to the breast and should not be the reason for the introduction of infant formula into the child's diet.

Advising a mother on feeding a baby up to 6 months of age.

If the baby is not getting enough milk, it is important to identify the possible cause and provide the mother with appropriate **recommendations:** 1) The number of feedings is NOT less than 8-10 times a day. 2) The principle of feeding at the request of the baby, feed at night. 3) It is important to teach the mother to properly latch the baby to the breast. 4) If the baby is receiving other foods or drinks, the mother should be advised to breastfeed more often, reduce portions of other foods or drinks, and then discard them. 5) It is necessary to advise the mother to eat well and involve other family members in caring for the child to ensure her good rest. 6) Give up nipples, pacifiers.	If the baby is getting enough breast milk, it is important to praise the mother for her efforts.

It is necessary to re-evaluate breastfeeding no later than 2 days after the preliminary assessment and further as necessary if abnormalities in the physical development and feeding of the child are found

If the mother is sick with acute respiratory illness, breastfeeding should be continued. Breastfeeding should be discontinued if the mother is taking medications that, in accordance with the instructions for use, have contraindications for breastfeeding children.

In some cases, when breastfeeding is not possible, the baby is supplemented (mixed feeding) or completely formula-fed (formula feeding with highly adapted formulas).

One of the most common reasons for introducing infant formula into a baby's diet and stopping exclusive breastfeeding is that the mother is concerned about what she believes is not enough breast milk.

Parents need to be consulted:

- about the risks to the health of the child associated with artificial feeding;
- how to prepare the mixture safely (for example, do not use well water to prepare the mixture)
- how to store the mixture correctly (do not use the mixture if more than 40 minutes have passed since its preparation).

With mixed feeding, it is necessary to feed with a mixture from a spoon only after the baby is attached to both breasts.

The diet with artificial feeding remains free.

Estimated **daily food volume** for a child under 12 months of age.*	
Age	Daily food volume
10 days-2 months	**1/5 of body mass**
2-4 months	**1/6 of body mass**
4 - 6 months	**1/7 of body mass**
6 - 12 months	**1/8-1/9 body mass**
after 1 year	**1 litre**
**** If the child's body weight corresponds to the age norm***	
NB! The amount of food a baby eats in one feeding is not always the same throughout the day	

Feeding and feeding a child at the age of 6-12 months.
At the age of 6 months, breast milk remains the main product for the baby, but there is a need to expand the baby's diet and introduce additional products (complementary foods) into it. **Breast milk at the age of 6 months can no longer satisfy the baby's need for calories, micronutrients, primarily iron, to ensure its normal development.**
Complementary foods are foods that are introduced in addition to breast milk (formula milk in the case of artificial feeding) to a baby in the first year of life.

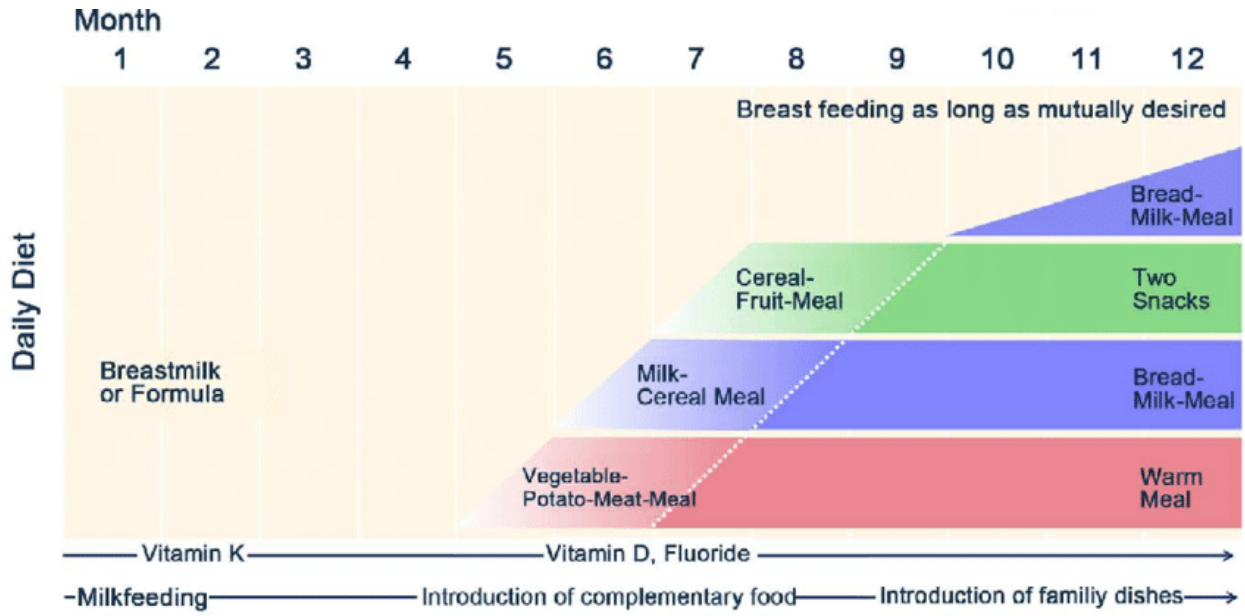
Signs of a child's readiness to introduce complementary foods	**Complementary feeding rules**
- holds his head; - sits with little or no support (in a highchair) - opens his mouth when they bring a spoon with food; - turns away from a spoon with food when not hungry; - closes his mouth with a spoon in his mouth, holds food in his mouth, and then swallows, rather than pushes or spits out.	1) Introduction of complementary foods is the process of introducing food products recommended in accordance with the age of the child with a gradual change in the dynamics of their consistency, taste, smell and appearance, while continuing to breastfeed. 2) Make sure the baby is ready to introduce complementary foods. 3) Complementary foods should be given when the child is active and hungry, preferably during breakfast or lunch with other family members. 4) Complementary feeding is given after a short breastfeeding (in the case of artificial feeding - a small amount of milk mixture). 5) During feeding, the baby should be in an upright position, in a comfortable position on the hands or knees of the mother, or in a special highchair. 6) Complementary foods should be given from a spoon. 7) Complementary feeding should be started by placing a small amount of food on the tip of a teaspoon. Hold the spoon so that the child can see it. Then touch the baby's lips with a spoon so that some of the product remains on the lips. And only when the child opens his mouth, put a spoon with food in the middle of the tongue, then the child will easily swallow it. 8) Each complementary food product is introduced starting with 1 teaspoon and increasing gradually, 5-7 days to a full serving, dividing it into 2 feedings. The child himself will

	show that he is full by turning his head away, pushing away the spoon or not opening his mouth. 9) Each time, after the baby has received complementary foods, it is advisable to apply it to the breast. This will help maintain lactation and keep the baby happy. 10) In case of refusal of the child from complementary foods, it is not necessary to force-feed, since the child can refuse all other products altogether. You can offer a different product (different taste and / or consistency), or the same, but on a different day. During feeding, it is necessary to communicate with the baby. 11) Each next new complementary food product should consist of one ingredient and be given to the child for at least 5 days, only then can mixed complementary foods from these products be given. This will provide an opportunity to determine the cause of the food allergy, if any. 12) It is recommended to add breast milk to complementary foods to facilitate the baby's habituation to new foods. 13) Complementary foods should be freshly prepared, have a delicate homogeneous consistency, cooled to body temperature (36-37 ° C). 14) For the prevention of iron deficiency anemia from 6 months, complementary foods that contain iron (meat, then liver, egg yolk, fish) must be introduced. 15) It is not recommended to drink any kind of tea and coffee for children under 2 years old, as these drinks interfere with the process of iron absorption. 16) Do not give whole, undiluted cow's milk to children under 9 months of age (a factor in the development of iron deficiency anemia). 17) Whole milk and dairy products can be given to a baby from 9-12 months. 18) During the introduction of complementary foods, salt and spices should not be added to complementary foods. 19) In case of signs of poor tolerance of the complementary food product (dysfunction of the digestive system, allergic reactions, etc.), the introduction of this complementary food product should be stopped and another one should be introduced.

Approximate scheme for the introduction of products

and complementary foods for children of the first year of life

Age of Child	Introduction of New Foods	Reason for Introduction	Developmental Skills
0–4 mo	Breast milk or iron-fortified formula (until 1 year of age).	Meets all of the infant's needs for the first 4–6 months.	
4–6 mo	Iron-fortified infant cereal mixed with breast milk or formula. Typically start with rice cereal, then oatmeal and barley. In the breast-fed infant, consider meats.	Provides a dietary source of iron when the body stores from birth are depleting. Meat provides a source of zinc for the breast-fed infant.	Sits with support. Holds head steady. Reaches for objects and can grab them.
6–8 mo	Strained fruits and vegetables. Sips of 100% fortified juice from a cup.	Provides dietary sources of vitamins, minerals, and calories. Introduces new food flavors.	Sits without support. Holds small objects in hand. Eats with up-and-down munching movement.
8–10 mo	Wheat cereal, strained chicken and other meats, mashed cooked beans; finger foods such as crackers, small pieces of meat, and cheese sticks.	Provides additional protein, vitamins, and iron for rapid growth. Encourages chewing when teeth erupt.	Can bite into foods. Uses finger and thumb to grab pieces of food. Can drink from a cup with help.
10–12 mo	Mashed table food, plain yogurt, cottage cheese, and cooked scrambled eggs. Pasteurized whole milk can be added at age 1 year.	Encourages the development of hand-to-mouth coordination and proper chewing. Infant gains more experience with self-feeding. Can drink from a cup and should be weaned from bottle.	Is able to coordinate hand-eye movements. Can hold and use a spoon.
12–24 mo	Mixed table food diet. Avoid foods that may pose choking hazard (grapes, nuts, hot dogs, raisins, raw vegetables, peanut butter).	Foods of high nutrient value should be offered, because intake declines with decreased rate of growth.	Names food, expresses preferences, and may go on food jags.



Between the ages of 12 months and 3 years:

- the number of meals at least 5 times a day (three main and two additional meals);
- dishes can be from the family table, if the family adheres to a healthy diet;
- breastfeeding can be continued in the second year of life;
- the child's diet should be varied, each containing fresh vegetables and fruits;
- low-fat varieties of meat, fish, liver, eggs are recommended,
- dishes should be soft, mushy, homogeneous consistency, in the form of mashed potatoes, soufflés, meatballs, steamed cutlets, and finely chopped fruits and vegetables;
- with the appearance of molars in children, food in consistency can be the same as in adults;
- up to 2 years of age, milk and dairy products in the child's diet should be of normal fat content (3.2 or 3.5%), and milk and dairy products with a reduced fat content are recommended for children over 2 years old;
- use fermented milk products in the diet;
- for the prevention of iodine deficiency states, iodized salt should be used when cooking;
- food must be thoroughly cooked and given to the child no later than 30 minutes after cooking.

In 2017, a group of American experts published Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach.
Children: A Responsive Parenting Approach): Dietary Guidelines for Americans (DGA) on food and drink to promote health, prevent chronic disease, and help people achieve and maintain a healthy weight.
The following definitions for young child nutrition have been included in these guidelines:
Baby-led weaning (BLW) is a method of adding solid foods to a baby's diet with breast milk or formula. Following a "food progression" approach, BLW aims to develop age-appropriate oral motor control while maintaining a positive, interactive view of nutrition. BLW is expected to contribute to toddlers' ability to self-regulate their solid food intake by allowing them to self-feed and explore their senses (touch, smell, lick) from the first introduction of solid food.
Complementary feeding is a process that begins when breast milk or infant formula is supplemented with other foods and drinks and ends when the young child completely switches to family meals.
The complementary feeding period usually lasts up to 24 months of age.
Complementary foods are foods and beverages other than breast milk or infant formula (liquids, semi-solids, and solids) provided to an infant or young child to provide nutrients and energy.
Early Care and Learning Programs are a variety of non-parental childcare activities, including childcare centers, family or non-relative home care.
The first 1000 days is the period of life that lasts from conception to two years of age.
Healthy foods are foods that contribute to a healthy diet when consumed in appropriate amounts.
Neophobia is the rejection of new products.
Irresponsible (irresponsible) feeding is feeding characterized by a lack of reciprocity between the child and the caregiver and may include:
a) the guardian (parent, legal representative of the child, caregiver) takes control and dominates the feeding, which is reflected in the control and pressure on behavior;
b) the child is in control of the situation, which leads to condescension;
c) a caregiver who does not take care of the child and ignores him.
When the caregiver controls feeds too much, it not only potentially redefines the child's internal regulatory signals for hunger and satiety, but can also interfere with the child's development of autonomy and commitment to competence.
Responsible nutrition is a key aspect of responsive parenting, which implies reciprocity between the baby and the caregiver in the feeding process. It is based on the following three steps:
(1) the child signals hunger and satiety through motor actions, facial expressions or vocalization;
(2) the caregiver recognizes signals and quickly responds emotionally favorably, depending on the signal, and developmentally;
(3) the child feels the intended response to the cues.
Responsible parenting is a parenting style that promotes self-regulation and cognitive, social and emotional development. Self-regulation includes constructs that can influence eating behavior, including self-control, willpower, performance control, pleasure delay, emotional regulation, executive function, and inhibitory control.
Unhealthy foods are foods high in saturated fat, trans fatty acids, added sugars, or sodium (i.e., energy dense, nutrient poor foods).

Infant Feeding Guidelines (according to Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach, 2017). **Infant feeding rules: what to feed from pregnancy to one year**
Prenatally / postnatally: • Eating a healthy diet during pregnancy and breastfeeding, including eating lots of vegetables and fruits, will help shape your baby's healthy and nutritious food preferences.

- Eating oily fish during pregnancy and while breastfeeding will provide your baby with more omega-3 fatty acids, which are needed for optimal brain development.

0 to 6 months:

• For the first 6 months (or before the introduction of solid foods), most babies only need breast milk (or formula). Breast milk provides almost all the nutrients needed for optimal growth and strengthening the infant's immune system. The composition of breast milk changes as your baby grows according to his individual nutritional needs.

• Breastfeeding is recommended to continue for at least 1 year.

• It is recommended for exclusively breastfed infants to receive a daily vitamin D supplement (400 IU) as breast milk is low in this vitamin. Infant formulas are fortified with vitamin D. However, if your child consumes less than 1 liter of formula per day, your doctor may recommend a vitamin D supplement for your child.

• If you are not breastfeeding your baby, iron-fortified formula is the next best choice to meet your baby's nutritional needs during the first 6 months. life. Do not feed your baby a low iron formula (less than 6.7 mg iron per liter).

• Newborns consume 1 to 2 ounces (30-60 ml) of formula for each feeding during the first month of life. This volume increases to about 2 to 3 ounces (60 to 90 ml) per feed during the second month, and then gradually increases to 4 to 6 ounces at 5 months.

• Pay attention to your child's hunger and satiety cues and never push him to finish the bottle. Your child sometimes does not need to finish the entire bottle mixture.

• Be careful about the volume of formula or expressed breast milk each feed. Research has shown that bottle size matters. The larger the bottle is used, the more likely the child will consume more than he needs.

• It is not recommended to offer fruit juices or sugary drinks until your baby's first year of life.

• The baby should only be fed with breast milk or formula. Do not add cereals to milk in a baby's bottle. This practice will not improve your baby's sleep at night; it may interfere with the absorption of nutrients in breast milk or formula.

6-12 months:

• From 4 to 6 months of age, look for signs of development to see if your baby is ready to start eating solid foods. Signs of a child's readiness for complementary foods: sitting without support, chewing, chewing food, swallowing food, grabbing and delivering food to the mouth. If your child pushes solids out with his tongue when food is offered (craving reflex) and / or taps when a spoon or food is placed in his mouth, he is not yet ready to introduce solid food.

• Sometimes between 4 and 6 months (when your baby is ready for further development) your baby's nutritional needs can no longer be satisfied with only breast milk or formula. At this time, gradually begin introducing solid foods by offering 1–2 teaspoons of mashed potatoes, slowly increasing the amount, paying attention to the baby's hunger and satiety signals. If your baby is still hungry after consuming the recommended small amount of solids, supplement with breast milk or formula.

• Mothers who choose to breastfeed are advised to continue breastfeeding until the baby is at least 1 year old.

• From 6 to 12 months, breast milk or formula continues to be your baby's most important source of nutrition. Solid foods should be introduced gradually. Solid food initially provides about a third, up to half, of the total calories your baby needs until he is 1 year old.

• Exclusively breastfed babies should start eating solid foods rich in iron and zinc between 4 and 6 months. Iron and zinc fortified baby cereals or puree is recommended as the first solid food for exclusively breastfed babies. In general, about 2 servings of cereals per day (2 tablespoons / serving) OR 1 to 2 ounces of meat per day is recommended to meet the need for these nutrients. However, each child needs a different amount to start with. Pay attention to the baby's hunger and satiety signals to find out how much your baby needs to eat.

• If you choose bottle feeding, it is recommended that you give your baby a formula fortified with iron and zinc. The gradual introduction of solid foods to a baby between 4 and 6 months is

important as it supports her ability to learn to eat a variety of healthy foods with different textures and tastes. Introducing solid foods also helps your little one develop, including social skills.
• After introducing porridge or meat puree fortified with iron and zinc, do not follow a special order for introducing solid food. At this point, your child is able to digest and absorb nutrients from healthy foods that belong to different food groups. It is important to remember, however, that the sooner vegetables are introduced (once your child is ready to eat solid foods), the more she is likely to be able to take them easily.
• When introducing a new vegetable, it is recommended that you first mix it with your usual food, such as breast milk, formula or cereals. The combination of new foods is more difficult for children to perceive, for example, some vegetables, with food they are already familiar with can help your child to perceive and learn to love vegetables more easily.
• Introduce your child to a variety of foods from all food groups (vegetables, fruits, grains, meat / proteins, dairy products) until she is 7 to 8 months old.
• Offering a variety of vegetables and fruits and avoiding foods with limited nutritional value, such as high in calories, sugar, salt, fat (eg french fries, sugary cereals, biscuits).
• What your child eats at about 9 months of age indicates that he will love to eat at school age. Offer your child a variety of fruits and vegetables, and whole grains (such as brown rice, whole grains).
• It is important to introduce your child to a wide variety of vegetables and fruits prepared in different healthy ways and with different textures before he turns 1 year old. This will bring your child a set of flavors and textures to help them accept and learn to love healthy foods from all food groups (fruits, vegetables, whole grains, dairy products and proteins). Your child will also learn to self-control the cravings for unhealthy foods that are high in sugars, sodium (salt), saturated fat, and calories.
• Between 6 and 8 months, introduce mousses, mashed potatoes, and gradually switch to soft foods. Then, between 8 and 12 months, your baby can start eating minced meat, chopped foods, and solid foods. Applying different textures will help your child with her chewing skills, as well as teach them to accept and love different healthy foods. Encourage your baby to self-feed as soon as he is ready.
• From 6 to 11 months, babies eat about every two to three hours, or about five to six times throughout the day.
• In addition to 6-8 ounces of breast milk or iron-fortified formula, with each meal, you can offer your baby:
• Up to 4 tablespoons of iron-fortified baby grains or protein foods (meat, eggs, legumes) or dairy products such as cottage cheese (up to 4 ounces), cheese (up to 2 ounces), or yogurt (up to 8 ounces)
AND
- up to 2 tablespoons of vegetables or fruits
• For a snack, you can offer breast milk or formula (2 to 4 ounces) and:
- up to ½ slice of whole grain bread, or up to 2 croutons, or up to 4 tablespoons of iron-fortified baby cereal
AND
- up to 2 tablespoons of vegetables or fruits, or a combination of both
• After your child starts eating solid foods, it is recommended that you offer just 4 to 8 ounces of plain drinking water in a cup. This will help your child become familiar with the taste and learn to love plain water.
• When preparing food for a baby, do not add salt and sugar. Also, when choosing baby food that is already prepared, choose options without (or with a limited amount) added salt or sugars. This will help your child learn the natural flavors of food and avoid consuming excessive amounts of salt and sugar later in life.
• Feed only healthy foods that provide plenty of vitamins, minerals, and fiber, including age-appropriate fresh vegetables, fruits, and whole grains. Also make sure you feed your baby

nutritious foods that provide enough protein (eg eggs, fish, meat) and energy.Продукты, которые следует избегать или ограничивать:

• Cow's milk should NOT be offered to a baby under 1 year of age as this may cause intestinal bleeding.

• Plant-based drinks (such as soy, rice, almond milk) are NOT recommended for your baby as a substitute for breast milk or formula unless directed by your pediatrician (such as soy formula). These drinks are not designed to meet your baby's nutritional needs as much as breast milk or infant formula.

• It is recommended to offer fresh fruit puree instead of fruit juices as they are of great nutritional value. Also keep in mind that fruit juices and sugary drinks with sugars are a concentrated source of calories that can crowd out other foods with better nutritional value or alienate your child from other nutritious foods that are not sweet. Avoid the introduction of fruit juices during the first year of life. Avoiding sugar-sweetened drinks can also help maintain dental health.

• It is strongly recommended NOT to offer sugar drinks such as flavored drinks (including Kool-Aid, fruit drinks, sodas, horchata (salted rice water), sports drinks, sweetened teas, or any other sugar-laden drinks) to your child during the first year life. This can increase your child's cravings for sugary foods and drinks and make it harder for him to love healthy foods such as vegetables, fruits, and plain water.

• Check the label and ingredient list before choosing food for your child. Choose foods with no or very limited amounts of added sugars and sodium (salt).

• Honey should NOT be given to babies under 12 months of age as it can cause a serious condition known as botulism.

• Supervise your baby while feeding and avoid offering choking hazards such as nuts, grapes, popcorn, hot dogs, and hard candy.

Spoon, cup and self-feeding

• Between 6 and 12 months, babies are encouraged to switch from bottle to cup.

• Up to 12 months, your baby should be able to spoon feed independently and hold the cup with both hands.

• Up to about 6 months old, you can use a baby spoon to start offering mashed food and water in a cup held by an adult.

• After about 8 months, your baby will start trying to spoon feed on its own and will most likely be able to drink from a cup.

• Children prefer to use their hands to examine solid foods. Although it looks sloppy, it gives the child the opportunity to explore and learn to love healthy foods. Encourage your baby to self-feed.

12-24 months:

Nutrition that promotes development

• One- and two-year-olds can only eat small meals at a time, so they should be fed five to six times a day. Chopped fresh fruits (such as apples, peaches, strawberries), cooked or chopped vegetables (such as carrots, broccoli, peas), and whole-wheat croutons with cheese are a good range of healthy snacks.

• Up to 1 year old, babies need about 1000 calories a day. However, every child has different needs, so pay attention to her hunger and satiety signals.

• After your baby is 1 year old, he needs three meals a day and two to three healthy snacks at about the same time every day. Keeping a regular schedule will help your child know when and what to expect during the day. However, don't worry if your child decides to skip a meal or snack. It is important for you to remember that you are offering food and let him decide how much he wants to eat.

• Make the most of your child's meals as part of the family meal. Toddlers learn to eat table foods and socialize during family meals.

Water, fruit juices and sugary drinks with sugar

• Water is the best option for quenching your thirst. Your baby needs about 2 glasses of water a day to cover her fluid needs. Use a cup to offer water. Avoid giving sugar drinks (such as soft drinks, sports drinks, fruit drinks, energy drinks, sweetened teas).
• Whenever possible, offer your little one fresh fruit instead of 100% fruit juice, since whole fruit contains less sugar and more fiber than juice. Avoid fruits canned in heavy syrup or added sugar. Excess fruit juices and fruits with added sugars can crowd out other nutritious foods and lead to tooth damage.
• If you choose to offer your baby 100% fruit juice, limit your intake to no more than 4 ounces per day and offer it in a cup, not a bottle.
• Don't put your baby to bed with a bottle or cup. This can cause oral health problems.

Diet variety

• Plan meals and snacks to provide a variety of healthy foods from all food groups (fruits, vegetables, meat / protein, dairy, whole grains).
• Multivitamins are not needed if your child is eating healthy, nutritious foods. If your doctor recommends giving your child a multivitamin, choose brands that are low in sugar. Ask your dentist if you are unsure which ones are low in sugar.
• Include a variety of vegetables, especially dark greens, reds and oranges. These vegetables are rich in nutrients that are difficult to get enough from other foods. The influence of different vegetables will also help your child learn to love vegetables. Offer 1/2 cup vegetables for most meals.
• Offer different fruits in different colors. Offer your child ¼ ½ cup of fruit at each meal.
• Provide your baby with a variety of poultry, fish, meat and meat substitutes (eg beans, lentils, tofu). Offer 1 ounce of poultry, fish, meat alternating on most meals and snacks. Avoid feeding your baby food that is high in salt, such as processed meats such as ham, lunch meats, and packaged breaded chicken and fish.

Snacks

• Offer your baby only nutritious snacks. Remember, at this age, snacks are a very important source of nutrients for growth and development and help shape eating habits for life. For most snacks, include fruits or vegetables in combination with a grain or dairy meal.

Whole grains and fiber, omega-3 fatty acids

• Offer your little one whole grain foods, such as whole wheat bread, wheat pasta, corn tortillas, or brown rice. These foods are rich in fiber, which is often lacking in children's diets. Offer ½ to 1 slice of whole grain bread, or ¼ to ½ cup whole grain cereals or pasta in most meals and snacks.
• Offer your little one fish such as salmon, white tuna and trout. Fish is a good source of healthy fats known as omega 3s, which are very important for brain development.
• Choose foods for your little one made with healthy oils such as olive, canola, corn or sunflower oil.

Limit sugar and sodium and avoid trans fats

• Avoid adding too much salt or sugar to your baby's food. Otherwise, your child will develop strong cravings for salty and sweet foods and drinks. Remember that the food you cook can be seasoned with natural herbs and spices (like basil, oregano, cumin, chili, ginger) instead of salt, sugar, honey, and other sweeteners.
• Read labels and ingredient lists when choosing ready-to-eat foods for your little one. Avoid foods that are high in any type of added sugars, including high fructose corn syrup (such as sugar-sweetened drinks such as Kool-Aid, sodas, sports drinks) or sodium (such as packaged pasta and cheese), or containing Any amount of trans fat (such as fries) The American Heart Association and the Academy of Nutrition and Dietetics recommend that children under 2 do not consume added sugars from food or beverages.
• Limit your little one's intake of high-sodium and sugar-added snacks.

Food safety recommendations for caregivers and babies:

Pasteurization and cooking temperatures

• Do not offer unpasteurized juice, milk, or dairy products to your child.
• Do not offer unprocessed meat, poultry, eggs, or seafood to your child.

4 STEPS TO KEEP FOOD SAFETY FROM BACTERIA

• **Is always:**

- CLEANING: Wash your hands and food preparation and serving surfaces frequently. Fruits and vegetables should be rinsed thoroughly with warm water before offering to your child.
- CUTTING: Keep raw meat, poultry, eggs and fish separate from other ready-to-eat foods.
- COOKING: Cook food to appropriate internal temperatures.
- STORAGE: Store cold food in the refrigerator and keep other food in the refrigerator for two hours after opening or cooking.

Cold storage

Strained fruits and vegetables: Store in the refrigerator for a maximum of two to three days.
Chopped meats and eggs: Store in the refrigerator for a maximum of one day.
Mixed meat and vegetable dishes: keep in the refrigerator for a maximum of one to two days.
The temperature in the refrigerator must be maintained at 0 - 4 0 C.

Processing leftover food

• At each meal, give the portion your baby is most likely to eat separately from the jar or bowl. This way you can avoid mixing the residue with the baby's saliva and save it for later feeding. Discard any unabsorbed food that was part of your child's serving.
• Always throw away any leftover food or breast milk. Do not feed your baby with breast milk or formula left at room temperature for more than one hour.

Preventing mouth burns

• When microwaving solid food, do so in a container and for short periods of time (eg test after 15 seconds at maximum). Let food stand for 30 seconds after microwave and before serving to child; stir before serving.
• Always check the temperature of the food offered before serving cooked food or warmed solid food to your baby. It should feel warm.
• There is no medical reason for warming breast milk or formula. If you do this, do not heat bottles of breast milk or formula in the microwave. They do not heat up evenly and can burn your baby's mouth.
• You can warm up a bottle of breast milk or formula by placing it under hot running tap water for about two minutes.
• You can also heat the bottles by heating the water on the stove, then removing it from the heat and placing the bottle in the water until it is warm.

Prevent food aspiration

• Supervise your baby during feeding and avoid foods that present a choking hazard.
• Toddlers may choke on foods that are shaped (small and round) and / or textured (hard, very slippery or elastic). Examples of common hazards are grapes, nuts, peanuts, popcorn, hard candy, carrots, hot dogs, meatballs, and chewing gum. Avoid these foods and cut round foods in half or quarters before serving.
• Have your child sit in a high chair and supervise him while eating. Remember that eating while walking can increase the risk of aspiration.
• If you are offering fish to your baby, it is highly recommended that you make sure it is completely stoned.

Food allergy problems for babies and toddlers

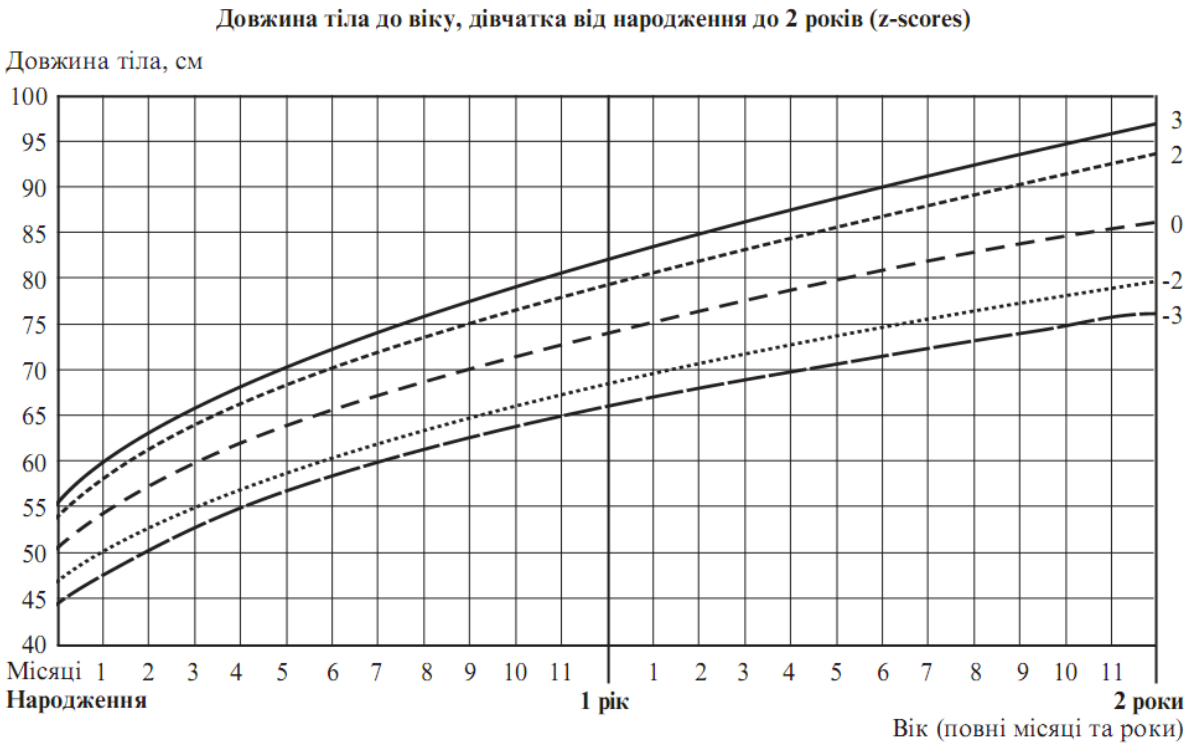
• Pregnant and breastfeeding women do not need to avoid common allergenic foods such as eggs, milk, peanuts, tree nuts, fish, shellfish and wheat. This does not help reduce the risk of food allergies in children.

• If the biological father is allergic to any food, talk with the child's doctor about any steps to take before introducing habitual allergenic foods (such as foods with peanuts, eggs, dairy, or wheat) to your child.
• Consult your doctor if you plan to use hydrolyzed or “hypoallergenic” formulas as they have not been shown to prevent food allergies in babies.
• You can give your child common allergenic foods when they are ready to eat solid foods (usually 4 to 6 months).
• Introduce common allergenic foods to the child after other solid foods have been offered and tolerated, and the first sample is at home. If a reaction does not occur, then you can gradually increase the amount at the rate of one new product every three to five days.
• Don't avoid acidic foods for your baby, such as berries, tomatoes, citrus fruits and vegetables, which can cause rashes around the mouth or buttocks. The rash is the result of irritation from the acid in the food, not from an allergic reaction to the food.
• Some babies and toddlers develop food allergies. If your baby develops signs of a food allergy (for example, skin rashes, trouble breathing, nausea, vomiting, or loose stools in response to feeding) seek immediate medical attention and advice.
• Your doctor can recommend a comprehensive assessment and development of a personalized solid food intake plan for your child.

Assessment of physical development.

It is carried out at every mandatory medical examination of a child under the age of 3 years. For this, the nurse takes measurements of the child's **length / height, body weight, and head circumference**. The measurement results are recorded in the corresponding graphs. This makes it possible to see the tendency of the child's physical development over the period and to identify the problems of physical development. In the overwhelming majority of cases, deviations from the standard rates of increase in body weight and length / height indicate impairments in the child's health and require a careful analysis of the situation and appropriate measures.

The interpretation of Growth Indicators depends on where the Growth Indicator is on the graph.



Normally, the lines of indicators of physical development run parallel to the median (line "0" on each graph). On the graphs, other lines define standard deviations (σ), indicating the remoteness of the physical development indicator from the average. The standard deviation lines on the graphs of the child's physical development have positive (1 σ, 2 σ, 3 σ) or negative (-1 σ, -2 σ, -3 σ) values. In the overwhelming majority of cases, a significant deviation from the standard growth rates of anthropometric indicators indicates impairments in the child's health, requiring a thorough analysis of the situation and appropriate measures.

The point of the value of body length for a given age, identified at each examination of the child, is established at the intersection of the indicator of full weeks, months or years and months on the horizontal axis and the value of body length on the vertical axis of the corresponding graph. Normal body length for a given age is recorded if the point is in the interval: above -2 σ - below 3 σ (Table 20). If the point is in the interval between -2 σ and -3 σ, this is a growth retardation. If the point is below -3 σ - this is an excessive growth retardation. After plotting points based on the results of two or more surveys, they are connected with a straight line in order to build a growth curve and see the dynamics.

The point that corresponds to the indicator of body weight for a given age, determined during each examination of the child, is set at the intersection of the values of full weeks, months or years and months on the horizontal axis and the value of body weight - on the vertical axis of the corresponding graph. Normal body weight for a given age is recorded if the point is between 1 σ and -2 σ. If the point is above 1 σ, the child may have developmental problems, which can be detected based on the analysis of indicators of the ratio of weight and length / height or body mass index (BMI) for a given age. If the point is in the interval between -2 σ and -3 σ - this is underweight, below -3 σ - excessively underweight. After plotting points based on the results of two or more examinations, they are connected with a straight line in order to build a curve of body weight and see the dynamics. The point corresponding to the ratio of body weight and body length / height is located at the intersection of the length / height value on the horizontal axis and the body weight value - on the vertical axis.

The normal ratio of body weight and length / height is recorded if the point is between 1 σ and -2 σ. If it is in the interval between -2 σ and -3 σ - the child is exhausted; below -3 σ - very depleted; between 1 σ and 2 σ - the risk of overweight; between 2 σ and 3 σ - overweight; above 3 σ - obesity.

The BMI point for age is set at the intersection of the child's age value on the horizontal axis and the BMI calculation result on the vertical axis.
The interpretation of BMI is the same as the ratio of body weight to length / height.

Methodology for assessing the physical development of a child			
Graph body length/age	**Graph body mass/age**	**Graph body mass/body length/age**	**Graph body mass index/age**
1. On the horizontal axis, mark the value of complete weeks, months, or years and months. Value dots should be placed on a vertical line (not between vertical lines). For example, if the child is 5.5 months old, the value is plotted on the distribution of 5 months (rather than between 5 and 6 months). 2. Mark the length / height on the vertical axis. Value points should be placed on or between horizontal lines. For example, if your child's body length is 60.5 cm, plot the value in the cell between the horizontal lines. 3. After plotting points based on the results of two or more surveys, it is necessary to connect the points with a straight line in order to build a curve and see the dynamics.	1. On the horizontal axis, mark the age in complete weeks, months, or years and months. Value dots should be placed on a vertical line (but not between vertical lines). 2. Mark the body weight on the vertical axis. The value points should be placed on a horizontal line. 3. After plotting points from the results of two or more surveys, connect them with a straight line to build a curve and see the dynamics.	1. Mark the length or height on the horizontal axis. The value points should be placed on the vertical line. The value must be rounded to the nearest whole centimeter. 2. On the vertical axis, plot the weight value. Dots should be placed on or between horizontal lines. 3. After plotting the indicators of the ratio of body weight to length / height for two or more examinations, connect the points with a straight line to build a curve and see the dynamics.	Body mass index is determined by the formula: body weight divided by height squared (kg / m^2). Round off the calculation result to the nearest tenth. In order to plot the body mass index for a given age, you should: 1. On the horizontal axis, mark the age in complete weeks, months, or years and months. The value points should be placed on the vertical line. 2. Mark the BMI value on the vertical axis. The value points should be placed on a horizontal line or between lines. 3. After plotting points from two or more inspections, connect them with a straight line to build a curve and see the dynamics.

The "normal" graph of the child's physical development will run parallel to the median (the line indicated by 0 on each graph) and the standard deviation lines. Most children develop on a “schedule” that runs along or between standard deviations and more or less parallel to the median; the graph can run below or above the median. Situations that indicate a problem or risk:
1) the curve of the child's physical development crosses the standard deviation line;
2) there is a sharp rise or decrease in the curve (s) of the child's physical development;
3) the absence of positive dynamics of the graph of the child's physical development (the child's weight or height does not increase).

Interpretation of risk is based on where exactly in relation to the median the changes began, the dynamics of these changes, with the obligatory taking into account the history. If the growth curve of a child crosses the standard deviation line, this means that significant changes have occurred in his development.
If the curve of physical development has acquired the direction of the median, this means that the changes have a positive trend. If the growth curve has taken a direction away from the median, this indicates a risk or a problem. If the growth curve of the child runs close to the median, crossing it from time to time, this is normal. If the growth curve rises or falls, while crossing the standard deviation line, an analysis of the cause of such changes should be performed.

Interpretation of standard deviations of indicators of physical development

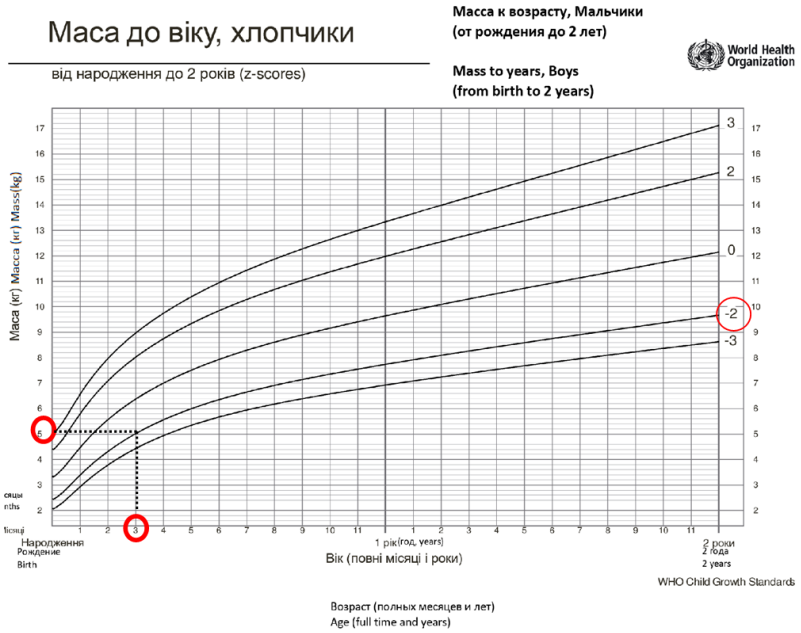
<table>
<tr><th rowspan="2">Standard deviation</th><th colspan="4">Physical development indicators</th></tr>
<tr><th>Length / height ratio for a given age</th><th>Body weight for a given age</th><th>Weight-to-length / height ratio</th><th>BMI for a given age</th></tr>
<tr><td>Above 3</td><td>See note. 1</td><td rowspan="3">See note. 2</td><td>Obesity</td><td>Obesity</td></tr>
<tr><td>Above 2</td><td>Norm</td><td>Overweight</td><td>Overweight</td></tr>
<tr><td>Above 1</td><td>Norm</td><td>Potential risk of being overweight (see note 3)</td><td>Potential risk of being overweight (see note 3)</td></tr>
<tr><td>0 (median)</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr>
<tr><td>Below −1</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr>
<tr><td>Below −2</td><td>Growth retardation (See note 4)</td><td>Underweight</td><td>Emaciated</td><td>Emaciated</td></tr>
<tr><td>Below −3</td><td>Excessive growth retardation (See note 4)</td><td>Excessively underweight</td><td>Highly emaciated</td><td>Highly emaciated</td></tr>
</table>

If a score is directly on the standard deviation line, it is considered to fall into the lower severity category. For example, if the mass reading for a given age is on the "-3" line, the child is considered to be underweight, but not excessively underweight.
To draw a conclusion about the physical development of the child, it is necessary to evaluate all the graphs of physical development and the results of observation of the child.
Looking at all of the child's growth charts together helps determine the nature of the developmental problems. It is also necessary to look at the dynamics of indicators for the period of observation of the child. For example, if a child is underweight on the age-specific weight / height chart, you should also consider the age-specific length / height chart and weight-to-length / height ratio.

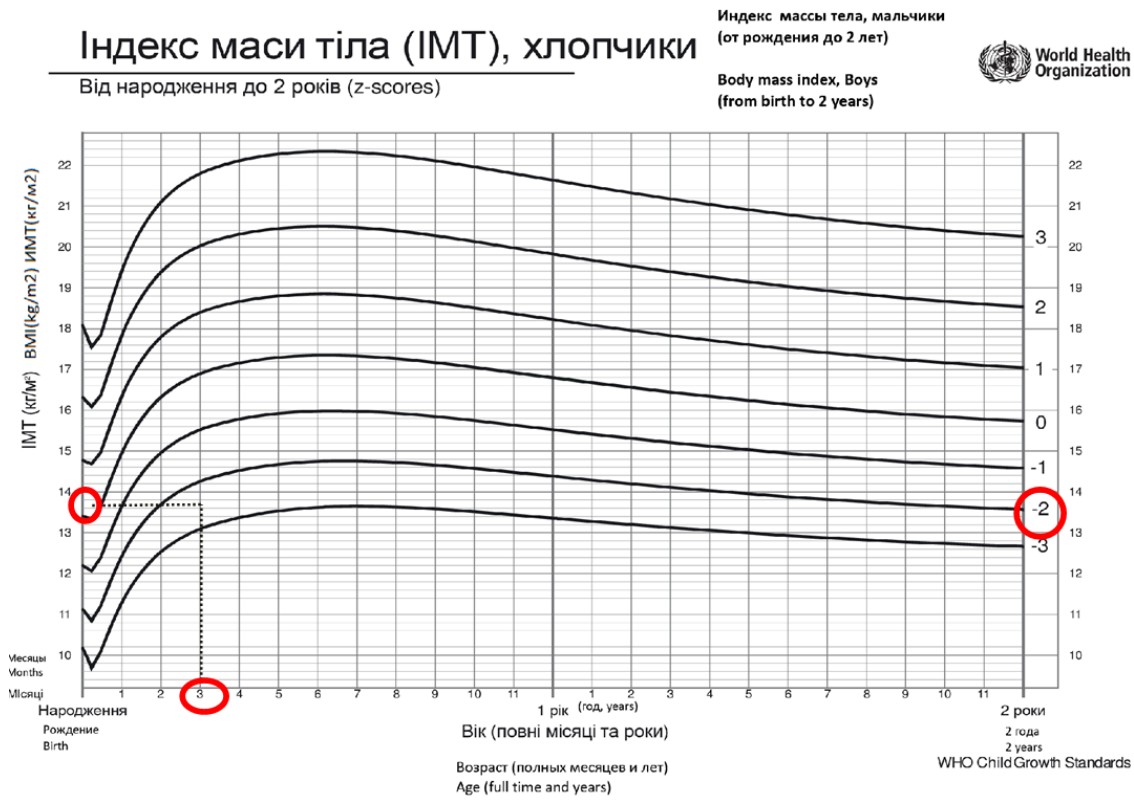
An example of assessing the physical development of a child.
A boy is 3 months old. On examination, the body weight is 5000, the body length is 60 cm. Recently he had been ill with pneumonia.
1. Prepare age- and gender-appropriate nomograms.

2. Find a point on the nomogram for assessing body length with age and evaluate the result: 0 - -2σ - normal.

3. Find a point on the nomogram for assessing body weight with age and evaluate the result: below -2 is insufficient body weight.



4. Calculate body mass index using the calculator using the Quetelet formula BMI = weight (kg) / height (m2) = 5: 0.36 = 13.89 and evaluate the result: below -2 means the child is exhausted.



5. Make a conclusion regarding the physical development of the child, taking into account the estimates obtained: protein-energy deficiency, due to pneumonia.

Assessment of the child's psychomotor development.

The child's psychomotor development reflects the formation of various parts of the child's nervous system at certain periods of life. The assessment of the child's psychomotor development is carried out at each preventive examination using a table in which the age characteristics of the child's psychomotor development are determined. The assessment of the child's psychomotor development is carried out according to the following criteria:

• motor skills - purposeful manipulative activity of the child;

• statics - fixation and maintenance of certain parts of the body in the required position;

• sensory reactions - the formation of responses to light, sound, pain, touch;

• speech - expressive speech and understanding of speech;

• mental development - positive and negative emotions, the formation of social age.

When assessing the psychomotor development of a child, it should be borne in mind that the examination results depend on a number of factors, such as the child's mood, the child's comfort level, the environment in which the review is carried out, and more. Re-inspection is necessary to verify that there is no function or a decrease in it. Based on the results of the assessment of the child's psychomotor development, the tactics of further medical supervision are determined. If the child is doing all the activities appropriate for his or her age, developmental care counseling should be provided. If the child is unable to perform the suggested actions or there is a delay in the emergence of skills, it is necessary to teach the mother how to conduct activities with the child for the purpose of development and how to use additional stimuli to develop skills that are lagging behind. The intensity of development and changes in the dynamics of the motor, mental, sensory spheres are most pronounced in the first year of life, and requires regular medical supervision of the child.

It is important to know that all children have the same rate of development for all criteria of psychomotor development. For the first time, the lag in the appearance of certain skills in the first year of life by 1 month, in the second by 3 months, in the third by 6 months is not a reason for establishing a diagnosis and consulting a pediatric neurologist. In this case, it is necessary to consult the mother on developmental care and schedule an examination of the child in dynamics with a re-assessment of psychomotor development. The doctor determines the term of the repeated examination. In the absence of positive dynamics, when re-evaluating the psychomotor examination, a child's examination is prescribed, including a consultation with a pediatric neurologist.

The doctor's tactics in accordance with the results of the assessment of the child's psychomotor development

Assessment results	Tactics
Indicators of psychomotor development correspond to the age of the child	Further observation. Developmental care counseling.
A lag in the appearance of skills in a child by 1 month in the first year of life was revealed	Nursing counseling for development and remedial training. Re-examination is after 1 month. A consultation with a pediatric neurologist is necessary if a lag is found during a second examination after 1 month.
Skills development lag by 3 months at the age of 1 to 2 years	Nursing counseling for development and remedial training. Re-examination after 1 to 3 months. If a lag is detected, it is necessary to consult a pediatric neurologist.
Skills development lag by 6 months at the age of 2 to 3 years	Developmental care counseling. Re-examination after 2-6 months. If a lag is found that persists, a consultation with a pediatric neurologist is necessary.

Note: The term for re-examination is determined individually.

6. Materials for methodological support of the lesson.

6.1. Tasks for self-examination of the initial level of knowledge and skills:

1. The purpose and procedure for mandatory medical preventive examinations of children under the age of 3 years.
2. The procedure for vaccination of young children.
3. Feeding / nutrition of young children.
4. Assessment of anthropometric indicators and charting the physical development of the child.
5. Interpretation of the graphs of the child's physical development.
6. Assessment of the child's psychomotor development in the first three years of life.
7. Advising a mother on child development care.
8. Compulsory medical preventive examinations of children in the first month of life.
9. Initial examination of the child at home after discharge from obstetric institutions.
10. Physiological and pathological jaundice in newborns.
11. The condition of the newborn child is considered satisfactory.
12. Condition of a newborn child requiring specialist advice.
13. Counseling on breastfeeding.
14. Etiology and pathogenesis of jaundice.
15. Early diagnosis of various forms and clinical variants of jaundice.
16. Differential diagnosis of jaundice.
17. Conservative methods of treatment.
18. Complications and prognosis of neonatal jaundice.

6.2. The information necessary for the formation of knowledge and skills can be found in the textbooks:

- *educational basic*:

1. Volosovets O.P, Snisar V.I. Recommendations for cardiopulmonary resuscitation in children. Methodical manual. Dnepropetrovsk: ART-PRESS, 2015. 48 p.
2. Zubarenko A.V, Aryaev N.L, Starets E.A etc. Pediatric skills in the practice of family doctor and pediatrician: textbook. - Odessa: Printing House Print South, 2014. - 232p.
3. Differential diagnosis of the most common diseases of childhood. Textbook / ed. V.M. Dudnyk, 1st edition. Vinnytsia: Nilan Ltd., 2017. 560 p.
4. Karen J. Markdante, Robert M. Kligman. Fundamentals of Pediatrics according to Nelson: translation of the 8th English. edition: in 2 volumes. Volume 1. Kyiv: VSV "Medicine", 2019. XIV, 378 p.
5. Karen J. Markdante, Robert M. Kligman. Fundamentals of Pediatrics according to Nelson: translation of the 8th English. edition: in 2 volumes. Volume 2. Kyiv: VSV "Medicine", 2019. XIV, 426 p.
6. Kryuchko T.A, Abaturov A.E, Kushnereva T.V Pediatrics: textbook (University IV level. A); under ed. AND. Kryuchko, A.E. Abaturov. Kiev: VSI "Medicine", 2020. 224 p.
7. Emergencies in pediatric practice: Textbook for students of medical institutions of higher education, interns. - 2nd type. Recommended by the Ministry of Education and Science, Recommended by the Academic Council of NMU. O.O. Bogomolets / Marushko Y.V, Chef G.G etc. Kyiv: VSV "Medicine", 2020. 440 p.
8. Pediatrics: a national textbook: in 2 volumes / Ed. prof. Berezhnogo V.V Kyiv, 2013. Vol.1. Kyiv, 2013. 1040 p.
9. Pediatrics: a national textbook: in 2 volumes / Ed. prof. Berezhnogo V.V Kyiv, 2013. Vol.2. Kyiv, 2013. 1024 p.
10. Pediatrics: a textbook for students of higher education institutions IV level accred. / for ed. prof. OV Severe. View. 5th, ed. and add. Vinnytsia: Nova Kniga, 2018. 1152 p .: ill.
11. Maidannyk V.G, Yemchynska E.A. Clinical guidelines for the diagnosis and treatment of community-acquired pneumonia in children from the standpoint of evidence-based medicine. - K., 2014.- 43 p. http://pediatrics.kiev.ua/library/metod/5.pdf
2. Pediatrics in two volumes, edited by Aryaev M.L, Kotova N.V. T2, Diseases of young children. Pulmonology. Allergology. Cardiology. Gastroenterology. Nephrology. HIV infection. Primary health care textbook - Odessa .: ONMedU. - 2014. - P. 205-211, 212-218
3. Order of the Ministry of Health of Ukraine dated 20.03.2008 № 149 "On approval of the Clinical Protocol of medical care for a healthy child under 3 years of age".

- *additional:*

1. Obesity and overweight. WHO [Internet]. 2018[cited 2019 Des 16]. Available from: https://www.who.int/news-room/ fact-sheets/detail/obesity-and-overweight
2. Pérez-Escamilla R, Segura-Pérez S, Lott M. Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach. Healthy Eating Research: Building evidence to prevent childhood obesity. 2017 68p. Available from: https://healthyeatingresearch.org/wpcontent/uploads/2017/02/her_feeding_guidelines_report_021416-1.pdf
3. Nader PR, Huang TT, Gahagan S, Kumanyika S, Hammond RA, Christoffel KK. Next steps in obesity prevention: altering early life systems to support healthy parents, infants, and toddlers. Child Obes. 2012;8(3):195-204. doi: 10.1089/chi.2012.0004
4. Perez-Escamilla R, Bermudez O. Early life nutrition disparities: where the problem begins? Adv Nutr. 2012;3(1):71-2.doi: 10.3945/an.111.001453
5. Perez-Escamilla R, Kac G. Childhood obesity prevention: a life-course framework. Int J Obes Suppl. 2013;3(1):S3-S5.doi: 10.1038/ijosup.2013.2

6.3. An orientation map for independent work with literature on the topic of the lesson.

№	Main goals	Instructions	Answers
1	2	3	4
1	Explore: compulsory preventive examinations of the child	Specify the timing of the introduction of complementary foods	Textbook "Pediatrics" ed. Aryaev M.L., Kotova N.V., volume II, pp. 212-218 Clinical protocol for the medical care of a healthy child under 3 years of age. Order No. 149 of 03/20/2008
2	Rational feeding and nutrition of the child	Breastfeeding, partially breastfeeding, artificial feeding	Textbook "Pediatrics" ed. Aryaev M.L., Kotova N.V., volume II, pp. 212-218 Clinical protocol for the care of a healthy child under 3 years of age. Order No. 149 of 03/20/2008
3	Physical development of the child	Length / height / age charts, weight / age charts, weight / length / height / age charts, BMI / age charts	Textbook "Pediatrics" ed. Aryaev M.L., Kotova N.V., volume II, pp. 212-218 Clinical protocol for the medical care of a healthy child under 3 years of age. Order No. 149 of 03/20/2008
4	Psychomotor development of a child	Motor skills, statics, sensory reactions, speech, mental development	Textbook "Pediatrics" ed. Aryaev M.L., Kotova N.V., volume II, pp. 212-218 Clinical protocol for the medical care of a healthy child under 3 years of age. Order No. 149 of 03/20/2008

7. Materials for self-control of preparation quality:

1. The purpose and procedure for mandatory medical preventive examinations of children under the age of 3 years.

2. The procedure for vaccination of young children.

3. Feeding / nutrition of young children.

4. Assessment of anthropometric indicators and charting the physical development of the child.

5. Interpretation of the graphs of the child's physical development.

6. Assessment of the child's psychomotor development in the first three years of life.

7. Advising a mother on child development care.

8. Compulsory medical preventive examinations of children in the first month of life.

9. Initial examination of the child at home after discharge from obstetric institutions.

10. Physiological and pathological jaundice in newborns.

11. The condition of the newborn child is considered satisfactory.

12. Condition of a newborn child requiring specialist advice.

13. Counseling on breastfeeding.

14. Etiology and pathogenesis of jaundice.

15. Early diagnosis of various forms and clinical variants of jaundice.

16. Differential diagnosis of jaundice.

17. Conservative treatment methods.

18. Decomposition and prognosis of neonatal jaundice.

8. Materials for classroom self-study:

A. Tasks:

<table>
<tr><td colspan="2">Task 1, 2, 3, 4, 5. A boy at the age of 6 months. The doctor examines during a scheduled preventive visit. The baby is born full-term. During the first half of the year, the child was not sick. Breastfeeds on demand. Vaccinated according to the mandatory vaccination schedule. Body weight is 9 kg, body length is 70 cm. General condition is satisfactory, temperature is 36.7 °C. He can independently turn from back to stomach and from stomach to back. Grabs the offered toy, transfers it from one hand to another. Begins to sit down, leaning on his hand. He recognizes the mother and father, reacts negatively to strangers if they try to take the child away from the mother. Tries to reach the object by changing the position of the body. Pronounces various syllables with varying pitch and pitch. The skin and mucous membranes are pink, moist, clean. The subcutaneous fat layer is developed satisfactorily, soft tissue turgor is satisfactory. The head is rounded, with a large fontanelle 1 × 1 cm at the level of the skull bones. Respiration rate is 40 in 1 min, vesicular breathing; heart rate is 110 per 1 min, heart sounds are clear and clear. The abdomen is soft, the liver and spleen do not protrude from the edge of the costal arch. Free urination. Stools are 1 time in 2 days.</td></tr>
<tr><td>Using the data from the graphs of the child's physical development, evaluate the physical development:
1.Physical development is normal, age appropriate
2. Insufficient body weight
3. Risk of being overweight
4. Exhaustion</td><td>Answer 1. Physical development is normal, age appropriate. This is evidenced by the fact that body weight and length are in the range from 0 to 2 σ, the ratio of body weight to length and BMI (18.4 kg / m2) is in the range from 0 to 1 σ.</td></tr>
<tr><td>Using the data set forth in add. 2, rate the child's psychomotor development:
1. Psychomotor development is age appropriate</td><td>Answer 2. Psychomotor development is age appropriate. All skills found in a child are 6 months old</td></tr>
</table>

2. The lag in the development of gross motor skills for 1 month. 3. Lagging skills of speech development for 1 month. 4. Lagging of all skills of psychomotor development for 1 month.	
Provide recommendations for feeding your baby: 1. Continue exclusive breastfeeding **2. Introduce alternately milk-cereal porridge, vegetable puree, fruit puree** 3. Introduce fermented milk products and cheese 4. Introduce vegetable puree, meat and fish into the diet	**Answer 3.** Introduce alternately milk-cereal porridge, vegetable puree, fruit puree. Meat, fish, fermented milk products are introduced after porridge, vegetable / fruit puree.
What are the recommendations to give mothers on breastfeeding in connection with the introduction of complementary foods? 1. Give complementary foods when the baby is hungry, do not breastfeed before and after complementary foods. 2. Give complementary foods after full breastfeeding 3. Give breast only after complementary feeding **4. Short-term breastfeeding before and after complementary feeding, breastfeed according to his needs without restrictions**	**Answer 4.** Short-term breastfeeding before and after complementary feeding, breastfeed the baby according to his needs without restrictions. With the introduction of complementary foods, it is given after a short breastfeeding; it is also necessary to apply the baby to the breast every time after the baby has received groundbait. This approach makes it possible to maintain lactation and meet the needs of the baby. It is advisable for the mother to breastfeed the baby for up to 1-2 years.
What vaccination is appropriate for a child? **1. Against hepatitis B** 2. Against whooping cough, diphtheria, tetanus, poliomyelitis 3. Against hemophilic infection 4. Against measles, rubella, mumps	**Answer 5.** Against hepatitis B. According to the calendar of compulsory vaccinations (order of the Ministry of Health of Ukraine dated September 16, 2011, No. 595), hepatitis B vaccinations are given at 6 months
Task 6. A district pediatrician examines a newborn baby on the 5th day of life at home. The child was born full-term from a physiological pregnancy, was discharged home on the 3rd day of life. From the extract of the newborn's card, it is known that the infant received prophylactic vaccinations against viral hepatitis B and BCG and screening examinations for phenylketonuria and congenital hypothyroidism. It was indicated that the mother was not found to have sexually transmitted infections, HIV infection, tuberculosis. Family history of hereditary and allergic diseases is not burdened.	

What else needs to be determined during the initial examination of the child? 1. The health group of a newborn child **2. The presence of bad habits among parents and the social status of the family** 3. Family composition, presence of other children 4. Who will look after the baby?	**Answer 6.** The presence of bad habits among parents and the social status of the family. During the initial examination of a newborn child, it is necessary to determine the risk group for social factors, which includes children from families in difficult life circumstances. It is inappropriate to define a health group.
Problem 7. When examining a newborn child at home on the 5th day of life, it was revealed that in the last two days of his life he had an icteric staining of the skin. An objective examination found that the baby's condition was satisfactory. The child is active, has clear periods of sleep and activity, she has a good sucking reflex, a stable body temperature. Breastfeeds exclusively when necessary. The skin of the face, trunk above the umbilical line is pink-icteric in color, the lower abdomen and limbs are pink. Respiration rate is 40 in 1 min, vesicular breathing; Heart rate is 120 in 1 min, heart sounds are clear. The abdomen is soft, the liver protrudes 1 cm from under the edge of the costal arch, the spleen is not palpable. The urine is colorless, the stool is colored, yellow.	
What type of jaundice is likely in a newborn baby? **1. Physiological jaundice** 2. Complicated physiological jaundice 3. Late jaundice 4. Prolonged jaundice	**Answer 7.** Physiological jaundice. This is indicated by the following: jaundice occurred on the 3rd day of life, it turns out to be above the navel line (zone 2 on the Kramer scale), the general condition of the child is not disturbed; the liver and spleen are not enlarged; light urine, stained stools; the child's age does not exceed 2 weeks.
Task 8. When examining a full-term newborn baby at the age of 16 days, the doctor at home revealed that the child retains an icteric skin coloration, which first appeared on the 3rd day of life. An objective examination found that the baby's condition was satisfactory. The child is active, has clear periods of sleep and activity, she has a good sucking reflex, brisk reflexes of the neonatal period, a stable body temperature. The infant is exclusively breastfed when needed. The skin of the face, trunk and proximal extremities is jaundiced (zone 4 on the Kramer scale); the distal extremities are pink. Respiration rate is 44 in 1 min, vesicular respiration; heart rate is 128 in 1 min, heart sounds are clear. The abdomen is soft, the liver protrudes 1.5 cm from the costal margin, the spleen is palpable at the costal margin. There are straw-yellow urine and stained stools.	
What are the tactics for managing this child? 1. Immediate hospitalization **2. Determination of the level of bilirubin, its fractions and transaminases** 3. General analysis of blood, general analysis of urine 4. Surveillance at home without additional research	**Answer 8.** Determination of the level of bilirubin, its fractions and transaminases. The child has prolonged (protracted) jaundice, because it is determined after the 14th day of life in full-term. This is pathological jaundice, it needs additional examination of the child, determination of the level of bilirubin, its fractions, transaminases. Immediate hospitalization of a child with pathological jaundice is necessary: when her condition worsens; if total serum bilirubin exceeds 200 micromol / l; if the fraction of direct bilirubin is more than 34 micromol / l (or more than 20% of the total bilirubin level) in the presence of hepato-, splenomegaly and / or dark urine or discolored stools.
Task 9. The district pediatrician examines the newborn baby on the 5th day of life at home. The baby was born full-term, was discharged home on the 3rd day of life. It is known from the	

<table>
<tr><td colspan="2">extract from the newborn's card that no pathology was found in the child on the 1st day of life. The mother complains that the baby sluggishly suckles at the breast, while she has a blue nasolabial triangle. On objective examination: at rest, the child's condition is satisfactory, physical activity is sufficient. The skin is pink, the mucous membranes are pink, clean, moist. Muscle tone is satisfactory. Reflexes of the neonatal period are vivid, symmetrical. Respiration rate is 56 per 1 min, vesicular breathing; heart rate is 156 in 1 min, cardiac impulse is visible, relative cardiac dullness is within the age norm, heart sounds are loud, a rough systolic murmur is heard above the apex of the heart, pulsation in the femoral arteries is satisfactory. The abdomen is soft, the liver protrudes 1.5 cm from the costal margin, the spleen is not palpable. There are free urination and stools 4-5 times a day.</td></tr>
<tr><td>What are the tactics for managing this child?
1. Immediate hospitalization
2. Send the child for a consultation with a cardiac surgeon
3. Send the child for a consultation with a cardiologist and for additional examination
4. Surveillance at home without additional research</td><td>Answer 9. Send the child for a consultation with a cardiologist and for additional examination. The presence of systolic murmur at the apex of the heart, the appearance of cyanosis of the nasolabial triangle during breast sucking are symptoms of VVS, did not appear in the first days of life, therefore, a consultation with a cardiologist and additional examination of the child (echocardiography, ECG, etc.) is needed. The child has no manifestations of HF, therefore, immediate hospitalization and consultation with a cardiac surgeon are inappropriate.</td></tr>
</table>

B. Tests:

1. The number of mandatory medical preventive examinations of a child under 3 years old cannot be less than

A. 11 physician examinations and 7 nurse examinations.

*** B. 13 examinations by a doctor and 6 examinations by a nurse.**

C. 15 physician examinations and 9 nurse examinations.

D. 12 examinations by a doctor and 5 examinations by a nurse.

E. 17 physician examinations and 11 nurse examinations.

2. What is the first complementary food product offered to a child at the age of 6 months?

A. Egg yolk.

B. Juice.

C. Fish.

D. Meat.

*** E. Porridge.**

3. How many times should a baby under 8 months receive complementary foods?

A. 2 times a day.

B. A wide variety of complementary foods from each product group.

*** C. 3 times a day.**

D. Once a day.

E. None at all.

4. What are the schedules of physical development?

A. Length / height / age charts.

B. Weight / age charts.

C. Weight / length / height / age charts.

D. Body mass index / age charts.

*** E. All of the above.**

5. What assessment is not included in the child's psychomotor development by the following criteria?
A. Motorics.
*** B. Physical development.**
C. Speech.
D. Statics.
E. Sensory reactions.

6. In a full-term baby with blood group A (P) rhesus (+), who was born from a mother with blood group 0 (1) rhesus (+), jaundice appeared on the 2nd day of life, the level of bilirubin on the 2nd day is 150 micromol / l when calculating the indirect fraction. Is the drug prescribed to reduce hyperbilirubinemia in a newborn baby?
A. prednisolone.
B. Vitamin E.
C. Carsil.
*** D. Phenobarbital.**
E. Essentiale.

7. A full-term baby born from a first normal pregnancy, burdened childbirth, had a cephalohematoma. On the 2nd day, jaundice appeared, on the 3rd day, changes in the neurological state appeared: nystagmus, Gref's syndrome. The urine is yellow, the stool is golden yellow of the same color. The mother's blood group is A (P) rhesus (+). On the 3rd day, the hemoglobin level is 200 g / l, erythrocytes are 6.1 x 1012 / l, blood bilirubin is 58 micromol / l due to the unbound fraction, hematocrit is 57. How to explain jaundice in a child?
A. Atresia of the biliary tract.
B. Physiological jaundice.
C. Hemolytic disease.
D. Fetal hepatitis.
*** E. Traumatic birth injury.**

8. What is characteristic of pathological neonatal jaundice?
A. Emergence on the 2-3rd day of life.
B. Duration less than 10 days.
*** C. A repeated increase in the intensity of jaundice.**
D. The level of direct bilirubin in the blood is less than 25 micromol / L.
E. The level of indirect bilirubin in the blood is less than 205 micromol / L.

9. What can be an indication for exchange transfusion in hemolytic disease of the newborn?
A. Hyperbilirubinemia more than 342 micromol / l.
B. The growth rate of bilirubin is more than 6.0 micromol / l in 1 hour.
C. The level of bilirubin in the umbilical cord blood is more than 60 micromol / L.
*** D. All of the above.**
E. None of the above.

10. What is jaundice caused by the incompatibility of the blood of the mother and the fetus?
A. Conjugation.
*** B. Hemolytic.**
C. Mechanical.
D. hepatic.
E. None of the above

9. Guidance materials for mastering professional skills:
9.1. Methodology for performing work, stages of implementation.
1. Assessment of theoretical knowledge on the topic of the lesson - solving a situational clinical problem;
2. Assessment of practical skills on the topic of the lesson - demonstration of the assignment;
3. Evaluation of work with the patient on the topic of the lesson - with an assessment in four positions:
a) complaints, anamnesis of illness and life,
b) clinical examination data
c) substantiation of the clinical diagnosis,
d) drawing up a treatment plan.

10. Materials for self-control of mastering knowledge, abilities, skills provided for by this work.

1. The number of mandatory medical preventive examinations of a child under 3 years old cannot be less than
A. 11 physician examinations and 7 nurse examinations.
*** B. 13 examinations by a doctor and 6 examinations by a nurse.**
C. 15 physician examinations and 9 nurse examinations.
D. 12 examinations by a doctor and 5 examinations by a nurse.
E. 17 physician examinations and 11 nurse examinations.

2. What is the first complementary food product offered to a child at the age of 6 months?
A. Egg yolk.
B. Juice.
C. Fish.
D. Meat.
*** E. Porridge.**

3. How many times should a baby under 8 months receive complementary foods?
A. 2 times a day.
B. A wide variety of complementary foods from each product group.
*** C. 3 times a day.**
D. Once a day.
E. None at all.

4. What are the schedules of physical development?
A. Length / height / age charts.
B. Weight / age charts.
C. Weight / length / height / age charts.
D. Body mass index / age charts.
*** E. All of the above.**

5. What assessment is not included in the child's psychomotor development by the following criteria?
A. Motorics.
*** B. Physical development.**
C. Speech.
D. Statics.
E. Sensory reactions.

11. Topic of the next lesson: №44 «Optimal nutrition of young children. The concept of "Nutrition in the first 1000 days of life».

12. Tasks for research independent student work on the topic of the next lesson: «The concept of "Nutrition in the first 1000 days of life».