

BREASTFEEDING OF INFANTS

**Academic discipline «Pediatric Propedeutics»
*Self-study guide for the 3rd year
English medium students***

ПРИРОДНЕ ВИГОДОВУВАННЯ НЕМОВЛЯТ

**З дисципліни «Пропедевтика педіатрії»
*Методичні вказівки
до самостійної роботи студентів 3-го курсу
медичного факультету***

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
Харківський національний медичний університет

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Compiled by: Klymenko V.A.
Sirenko T.V.
Lupaltsova O.S.

Природне вигодовування немовлят: метод. вказ. до самост. роботи студентів 3 курсу медичних факультетів / упор. В.А.Клименко, Т.В. Сіренко, О.С.Лупальцова. – Харків, ХНМУ, 2016. – 16 с.

Упорядники: Клименко В.А.
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Contents

Many researchers of the epidemiology of breastfeeding in developed countries and in developing countries have observed that breastfeeding performs a wide range of vital functions and regulated of development and differentiation. Breast milk provides many health benefits and it is the ideal first food for infants. In addition to providing the absolute best nutrition for a growing body, breastmilk supplies the factors needed to develop the immune system and protect the child against infectious disease. However, there is the particularity of nutrition according the age which provides the normal functioning of all organs and systems. In the second half of the first year after birth, children with breastfeeding require some qualitative changes in the diet, such as increase of the protein and minerals, and should be introduced to appropriate the solid foods. The knowledge of main principles of breastfeeding and introduction of solid foods is important for organization of feeding as for full-term and pre-term infants.

Specific goals

- To define modern aspects of breastfeeding of infants.
- To expect and prepare the daily diet for children with breastfeeding.
- To adjust the daily regime of feeding for children older than one year.

To know:

1. The modern aspects of breastfeeding of infants.
2. To identify the benefits of breastfeeding for newborn.

3. To define the quantitative and qualitative composition and the immunological role of a breast milk.
4. To demonstrate the calculating of volum of milk for infants using the volumetric feeding method.
5. To provide the correct technique of breastfeeding.
6. To define main difficulties in breastfeeding, the prevention of hypogalactia and mastitis.
7. To define the needs of child with breastfeeding in proteins, fats, carbohydrates and calories.
8. To define needs in proteins, fats, carbohydrates and calories in child which had the introduction of solid foods.

Be able to:

1. To collect anamnesis of infants and evaluate it.
2. To calculate the amount of food per day for child, according to the age.
3. To make a one-day menu for child one year with breastfeeding, taking into account the needs in food ingredients.
4. To evaluate the correct techniques of breastfeeding.
5. Issues in the prevention of hypogalactia and mastitis.
6. To demonstrate the methods of calculation for child with introduction of solid foods, taking into account the needs in food ingredients.

Basic knowledge, abilities, and skills, which are necessary for studying the topic (interdisciplinary integration).

The names of previous disciplines	Skills
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1. Bases of psychology.	To analyze the emotions of the patient, interpersonal relationships, and children's behavior.
2. General anatomy	To know the structure of the organs and systems of child's body. Clarifying the meaning of certain anatomical features of child's organism in the organizing of childcare.
3. Normal physiology	To know the features of functioning of the organs and systems of child's body in dependence of the age of the child.

Graphical structures of individual issues of the topic.

1. Graphical structure of the topic « Natural feeding of infants» - Appendix 1.
2. Graphical structure of the topic «Breastfeeding of infants» - Appendix 2.
3. Graphical structure of the topic « Breastfeeding of infants after the introduction of solid foods » - Appendix 3.

The list of study materials:

Main:

1. Propaedeutics of Paediatrics: Manual for foreign students / V. A. Fjoklin, V. A. Klymenko, O. M. Plakhotna, T. V. Sirenko, A. I. Kojemiaka, O. V. Sharikadze. – Kharkiv: 2010. – 356 p.
2. Kapitan T. Propaedeutics of children's diseases and nursing of the child / T. Kapitan. – The state cartographical factory, 2006. – 734p.

Additional:

1. Nelson textbook of pediatrics.—18th ed./ edited by Robert M. Kliegman. Part V. Nutrition. Chapter 42. The Feeding of Infants and Children.
2. Ghai O.P. Essential pediatrics (fourth edition). – New Delhi, India: Interpint, 1996.—476 p.
3. Gupte S. The short textbook of pediatrics, 8th edition. – New Delhi, India.: Iaypee Brthe others. Medical publishers (P) hTD, 1998. – 617 p.
4. Bickley L.S., Hockelman R.A. Physical examination and History Taking. – Philadelphia, New York, Baltimor.: Lippincott, 1999. – 789 p.

Test questions to the class:

1. What is the basic breast anatomy and physiology, including the process of milk production and the composition of human breast milk?
2. What is mean term «breastfeeding»?
3. What are the stages of lactogenesis, or milk production?
4. What is mean term «contact skin to skin»?
5. What are the ten steps to successful breastfeeding according to guidelines WHO/ UNICEF?
6. What is mean term «free breastfeeding» and practice «rooming in»?
7. What is correct breastfeeding technique?
8. What are the benefits of breastfeeding for infants, mothers, and society?
9. What are the limited contraindications to breastfeeding?

10. What are the clinical recommendations regarding the use of medications in the breastfeeding mother based upon the pharmacology of the medication, the condition of the baby, and available research, while considering the risks of not breastfeeding?

Tests for self-control:

1. Which statement is not the absolute contraindication for breastfeeding from the mother's part?
 - A. Malaria
 - B. Severe neuroses and postpartum psychoses
 - C. Breast cancer
 - D. Angina, flu, pneumonia
 - E. Typhoid fever

2. Which statement is not the absolute contraindication for breast feeding from the child's part?
 - A. High degree of the pre-maturity
 - B. Severe forms of respiratory insufficiency
 - C. Severe disturbances of brain blood circulation with threat of intracranial hemorrhage
 - D. Low body weight
 - E. Conditions after resuscitation measures

3. Which statement is not the relative contraindication for breast feeding from the mother's part?
 - A. Measles, chicken pox.
 - B. Angina, flu, pneumonia
 - C. Breast cancer
 - D. Low degree of the pre-maturity
 - E. Active tuberculosis

4. Which statement is not contraindication of breast feeding from the mother's part?
 - A. Cracks of a dummy
 - B. Acute infections

- C. Hypogalactia
 - D. Retracted nipples
 - E. Mastitis
5. Which statement is not contraindication of breast feeding from the child's part?
- A. High body weight
 - B. Thrush
 - C. Pathology of lips and the hard palate
 - D. Running nose
 - E. Idiosyncrasy to female milk.
6. How often baby of 2 months needs to be fed?
- A. 5 times
 - B. 6 times
 - C. 7 times
 - D. 8 times
 - E. 9 times
7. How often baby of 6 months needs to be fed?
- A. 5 times
 - B. 6 times
 - C. 7 times
 - D. 8 times
 - E. 9 times
8. How often baby of 11 months needs to be fed?
- A. 5 times
 - B. 6 times
 - C. 7 times
 - D. 8 times
 - E. 9 times
9. What is the difference between the composition of the breast milk and the colostrum?
- A. The breast milk contains more protein and minerals, but less carbohydrate and fat
 - B. The breast milk contains more protein and fat, but less carbohydrate and minerals

- C. The breast milk contains more carbohydrate and fat, but less protein and minerals
 - D. The breast milk contains more carbohydrate and protein, but less fat and minerals
 - E. There is no right answer.
10. When are the first introduction of solid foods starting if the mother has good lactation and child has the weight gain according to the age?
- A. after 3 months
 - B. after 4 months
 - C. after 5 months
 - D. after 6 months
 - E. after 7 months
11. In what lactation period should the colostrum produce?
- A. 3-5 days
 - B. 10-14 days
 - C. 4-6 weeks
 - D. 2 days
 - E. 3 month

12. What is content of proteins (g/100ml) in breastmilk?

- A. 0,6 g
- B. 1,2 g
- C. 2,0 g
- D. 2,7 g
- E. 3,2 g

13. What is content of carbohydrates (g/100ml) in the breastmilk?

- A. 3,0 g

- B. 4,5 g
- C. 5,0 g
- D. 7,5 g
- E. 8,5 g

14. What is content of fats (g/100ml) in the breastmilk?

- A. 2,0 g
- B. 3,5 g
- C. 4,5 g
- D. 6,0 g
- E. 6,5 g

15. How many calories per one liter (kcal/l) are in the breastmilk?

- A. 600 kcal
- B. 700 kcal
- C. 900 kcal
- D. 1000 kcal
- E. 400 kcal

16. What are the signs of sufficient lactation?

- A. The pronounced pigmentation of areola
- B. The pronounced veins of mammary glands
- C. The increased temperature of the skin under the breast more than 0,1-1,0°S
- D. The milk stream flows from the breast
- E. All about it

17. What are saccharides in breast milk, which promotes bifidum - bacteria in the child's gut?

- A. α - lactose
- B. β - lactose
- C. sucrose
- D. glucose

E. fructose

18. What are reasons of hypogalactia?

- A. Endocrine disorder
- B. Stressful conditions
- C. Chronic disease
- D. Irrational diet
- E. All of the above

19. What is the percentage content of proteins in the diet for children of 2nd half of first year (%)?

- A. 50%
- B. 75%
- C. 80-90%
- D. 100%
- E. 40%

20. What is the percentage of proteins in the diet for children of 1st half of first year (%)?

- A. 50%
- B. 75%
- C. 80 - 90%
- D. 100%
- E. 45%

Assignment for individual student work:

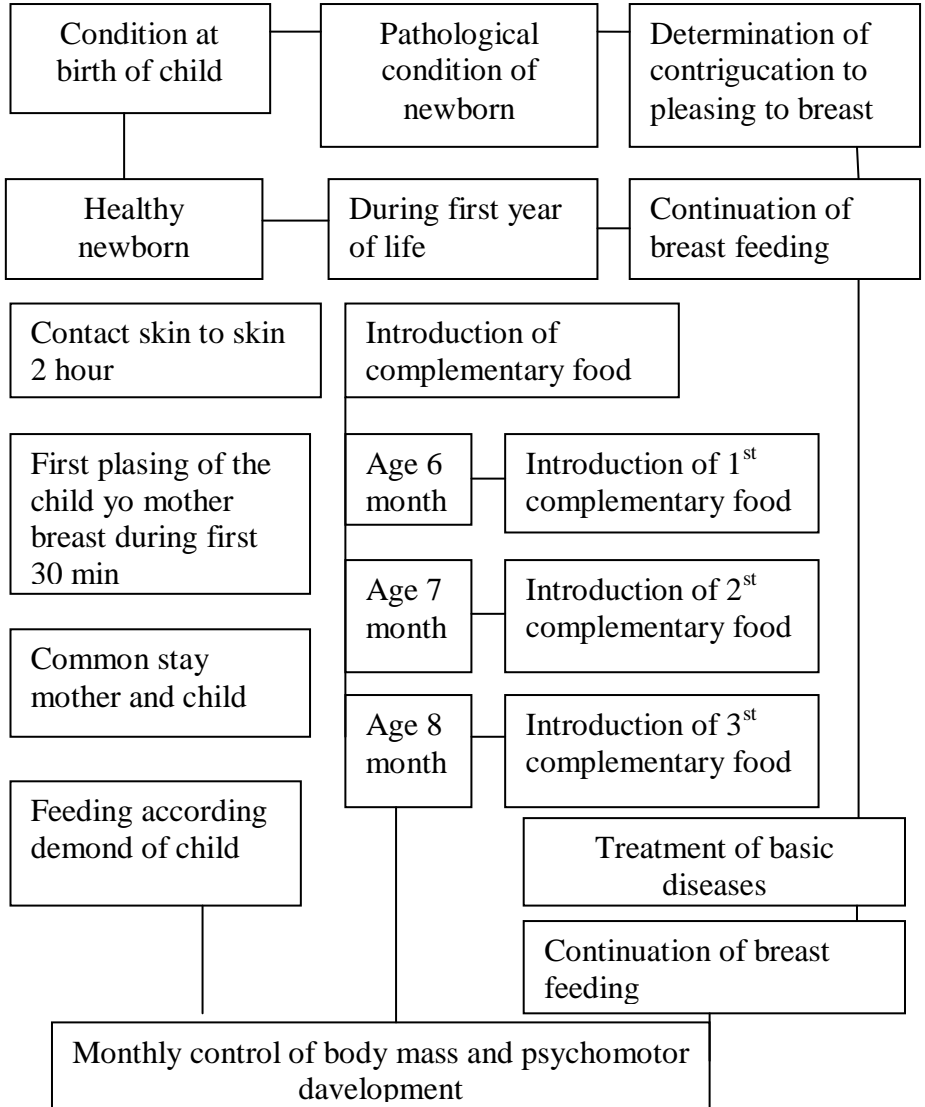
To make a conversation with parents of childrens with breastfeeding and after introduction of solid foods.

The standards of answers to the tests:

1-D; 2- D; 3-C; 4-B; 5-A; 6- C; 7-A; 8-A; 9- A; 10-D; 11-A; 12-B; 13-D; 14-B; 15-B; 16-E; 17-B; 18-E; 19-C; 20-A.

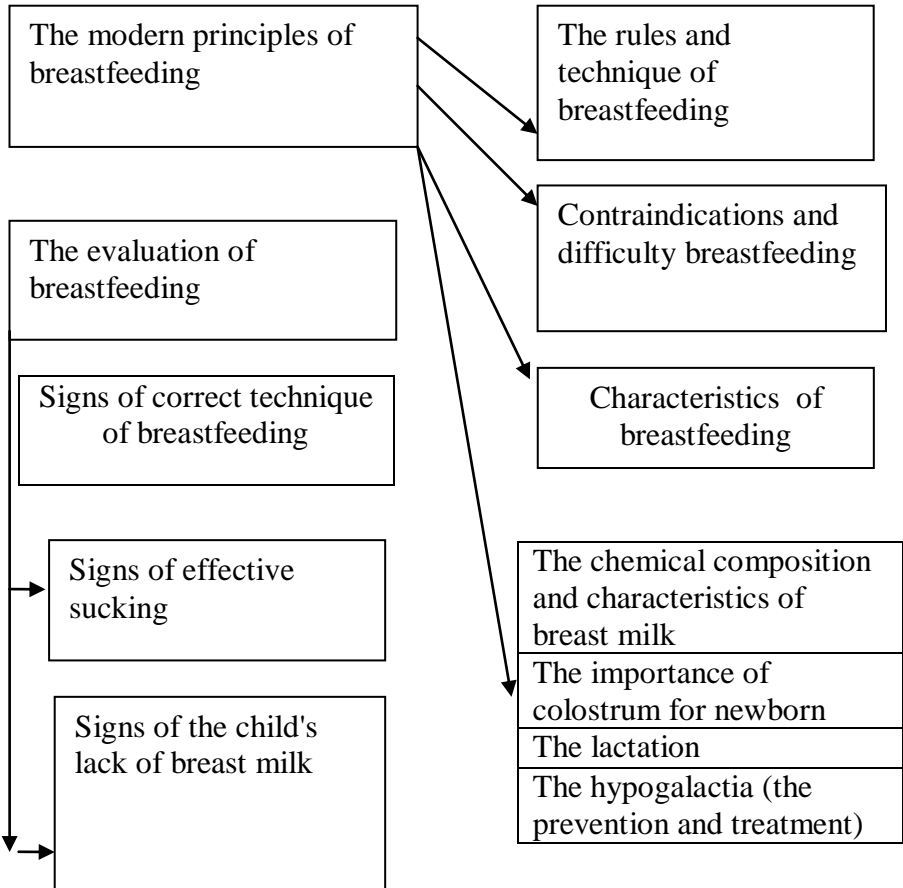
Appendix 1

Graphical structure of the topic «Natural feeding of infants»



Appendix 2

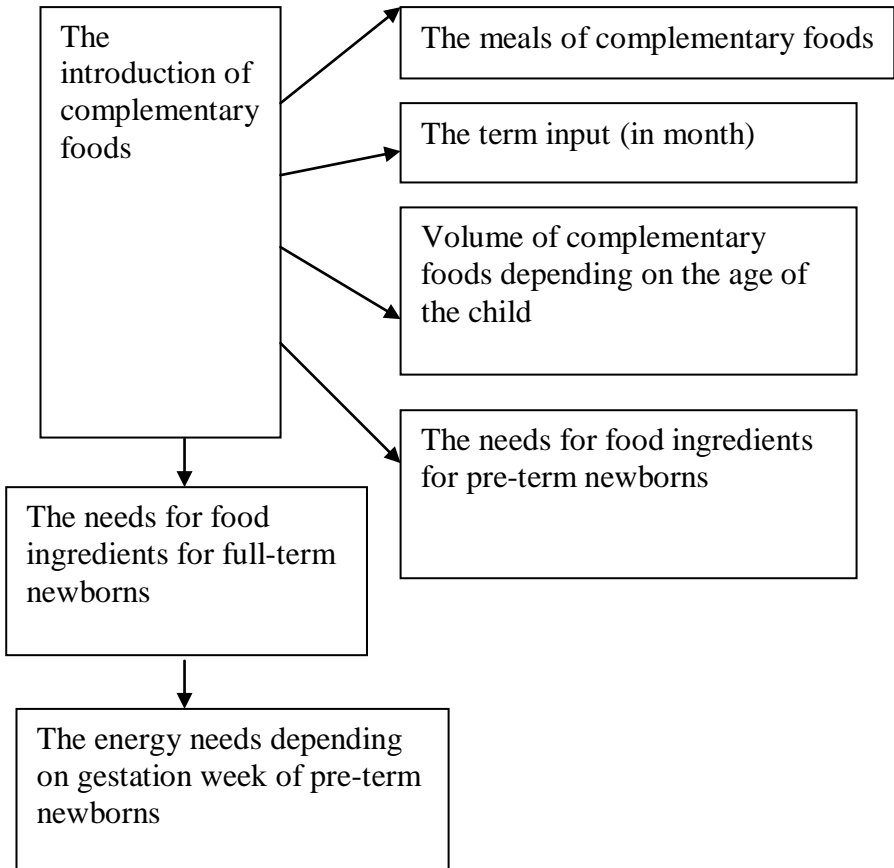
Graphical structure of the topic «Breastfeeding of infants»



Appendix 3

Graphical structure of the topic

«Breastfeeding of infants after the introduction of solid foods»



Навчальне видання

Природне вигодовування немовлят

Упорядники: Клименко Вікторія Анатоліївна
Сіренко Тетяна Вадимівна
Лупальцова Ольга Сергіївна

Відповідальний за випуск: Клименко В.А.

Комп'ютерна верстка

Ум. друк. арк.____. Тираж____ прим. Зам. №____.
