

**INSTITUTE OF INCLUSIVE EDUCATION BSPU**

**ACADEMIC DISCIPLINE**  
**«HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY»**



**THE CONCEPT OF THE CONGENITAL  
MALFORMATIONS  
AND THEIR CLASSIFICATION**

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- congenital malformation
- teratology
- teratogenesis
- gametopathies
- blastopathy
- embryopathies
- fetopathy
- isolated malformations
- systemic malformations
- multiple malformations

РЕПОЗИТОРИЙ БГПУ

# THE CONCEPT OF THE CONGENITAL MALFORMATIONS



## **Congenital malformation**

arising in utero persistent morphological change of organ, organ system, body part or the whole organism, going beyond the limits of structure variations and violating its function

# THE CONCEPT OF THE CONGENITAL MALFORMATIONS



## Teratology

science that studies the malformations of embryonic development or deformities concerning disorders of the whole organism structure or its individual parts (Big Medical Encyclopedia)

# THE CONCEPT OF THE CONGENITAL MALFORMATIONS



## **Teratogenesis**

mechanism of development of congenital malformations

## **Teratogen**

substance or factor that causes abnormal development of the fetus

# CAUSES OF CONGENITAL MALFORMATIONS



## The impact of internal (endogenous) factors

- biological inferiority of germ cells
- hormonal disorders
- maternal somatic diseases
- disorders of alimentation

## The impact of external (exogenous) factors

- ionizing radiation
- viral, bacterial infections
- lack of oxygen
- impacts of certain chemicals

# CLASSIFICATION OF CONGENITAL MALFORMATIONS



## Classification of congenital malformations by etiological basis

Genetic

Gene

Chromosomal

Environmental

Multifactorial

# CLASSIFICATION OF CONGENITAL MALFORMATIONS



## Classification of congenital malformations depending on the time of exposure to damaging factors

Gametopathies  
(germ cells)

Blastopathy  
(up to  
15 days)

Embryopathies  
(2-8 week)

Fetopathy  
(from  
9 week)



# CLASSIFICATION OF CONGENITAL MALFORMATIONS



## Classification of congenital malformations depending on the sequence of occurrence

Primary

Secondary

Isolated

System

Multiple

# CLASSIFICATION OF CONGENITAL MALFORMATIONS



## Classification of congenital malformations depending on the frequency of occurrence

Frequent  
up to 1:1000

Moderately  
frequent  
up to  
10:10000

Rare  
Up to  
10:100000

Very rare  
less than  
10:100000

# CLASSIFICATION OF CONGENITAL MALFORMATIONS



## Classification of congenital malformations depending on localization

- malformations of the cranium and brain
- malformations of the spinal cord
- malformations of the face and neck
- malformations of the central nervous system and sense organs
- malformations of the circulatory system

- malformations of the respiratory system
- malformations of the digestive system
- malformations of the musculoskeletal system
- malformations of the urinary system
- malformations of genital organs
- malformations of the endocrine gland
- malformations of the skin and its appendages

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