

**BRITISH STANDARD 1000 [612]: 1968**

UDC 025.45: 612

# **UNIVERSAL DECIMAL CLASSIFICATION**

**ENGLISH FULL EDITION**

Fourth International Edition  
(FID Publication No. 179)

## **UDC 612 PHYSIOLOGY**



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**BS 1000 [612] : 1968**

**UDC 612  
PHYSIOLOGY**

THIS BRITISH STANDARD, having been approved by the Documentation Standards Committee, was published under the authority of the General Council on 27 May, 1968.

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In order to keep abreast of progress British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 4000, fully indexed and with a note of the contents of each, will be found in the Institution's Yearbook. The BS Yearbook may be consulted in many public libraries and similar institutions.

Attention is drawn to the following British Standards:

|           |                                                             |
|-----------|-------------------------------------------------------------|
| BS 1000A. | Universal Decimal Classification: Abridged English Edition. |
| BS 1000C. | Guide to the Universal Decimal Classification (UDC).        |
| BS 1000.  | Universal Decimal Classification (English Full Edition).    |
|           | UDC 54 Chemistry                                            |
|           | UDC 57 Biology                                              |
|           | UDC 58 Botany                                               |
|           | UDC 59 Zoology                                              |
|           | UDC 611 Anatomy                                             |
|           | UDC 613 Hygiene                                             |
|           | UDC 614 *Public health. Accident prevention                 |
|           | UDC 615 *Pharmaceutics. Therapeutics. Toxicology            |
|           | UDC 616 *Pathology                                          |
|           | UDC 617 Orthopaedics. Surgery. Ophthalmology                |
|           | UDC 618 *Gynaecology. Obstetrics                            |

\* In course of preparation.

*British Standards are revised, when necessary, by the issue either of separate amendments or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.*

The following BSI references relate to the work on this standard:  
Committee references OC/20/4, OC/20/4/14.

## CO-OPERATING ORGANIZATIONS

The Documentation Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific, technical and professional organizations:

|                                                                                       |                                                                        |
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|                                                   |                                                    |
|---------------------------------------------------|----------------------------------------------------|
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| Pharmaceutical Society of Great Britain           |                                                    |

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# UNIVERSAL DECIMAL CLASSIFICATION

## ENGLISH FULL EDITION

# UDC 612 PHYSIOLOGY

## FOREWORD

THE English version of the Universal Decimal Classification (UDC) is being prepared and published as BS 1000 by the British Standards Institution (BSI) at the original joint request of the British Society for International Bibliography (BSIB) and the Association of Special Libraries and Information Bureaux (ASLIB), now both amalgamated as Aslib. The first English full edition is the fourth international edition authorized by the Fédération Internationale de Documentation (FID) and has the approval of the Education Foundation, Lake Placid Club, New York, proprietors of the Dewey Decimal Classification, from which the UDC derives.

This section is part of the English full edition and existing and prospective users are strongly advised not to use it in isolation but in conjunction with the Abridged English Edition, BS 1000A. The abridged edition refers to many other subjects of interest to users which are not listed in this schedule and it provides a conspectus of the whole scheme, together with an introduction to its use. For further practical information about the principles, application and utilization of the scheme, users should refer to BS 1000C 'Guide to the Universal Decimal Classification (UDC)'. A survey of UDC editions in English and other languages will be found on page 39 of this volume.

Because the BSI is making every effort to complete the first English full edition of the UDC by publishing without delay those parts of BS 1000 which are lacking, it is possible that some errors, imperfections and inconsistencies will be found in this section. The Institution would like to emphasize, however, that every user has the opportunity to submit suggestions for improvements; these will be welcomed and considered by the appropriate bodies. Improvements involving major changes in the order and arrangement of the classification can only be introduced by international agreement (*via* the British Standards Institution) but criticisms of terminology, translation, etc., affecting the English edition as such can be dealt with by the BSI.

This edition of UDC 612 Physiology incorporates amendments in 'Extensions and Corrections to the UDC' up to and including Series 6, No. 3.

## Notes on UDC 61 Medicine

### SCOPE

Section 61 includes everything to do with the anatomy, physiology, pathology, etc., of the human body and also comparatively those of animals; further, the avoidance of illnesses and accidents (hygiene, public health, accident prevention) and therapeutics (pharmacology, practical pharmacy, materia medica and toxicology). It should be noted that a series of subjects important to medicine come in the sections 56 Palaeontology, 57 Biological sciences, 58 Botany and 59 Zoology. In classifying the literature those sections should also be taken into account; in many cases special reference is made to them in subsections of 61.

### PRINCIPLES OF DIVISION

Section 611 Anatomy, especially 611.1/.8 Systematic anatomy, is particularly important (see the introductory remarks to the section 611). The subsections of 61 correspond as far as possible with each other, especially 612.1/.8 Systematic physiology and 616.1/.8 Special pathology.

If a publication deals with aspects of the anatomy, physiology and pathology of specific parts of the body, it should be placed in the appropriate part of 616; it is recommended, however, that references should be made to the corresponding subsections of 611 and 612.

### PRINCIPAL DIVISIONS

|                                             |                                               |
|---------------------------------------------|-----------------------------------------------|
| 611 Anatomy                                 | 616 Pathology                                 |
| 612 Physiology                              | 617 Orthopaedics. Surgery. Ophthalmology      |
| 613 Hygiene                                 | 618 Gynaecology. Obstetrics                   |
| 614 Public health. Accident prevention      | 619 Comparative medicine. Veterinary medicine |
| 615 Pharmaceutics. Therapeutics. Toxicology |                                               |

## NOTES ON AUXILIARY SIGNS AND SUBDIVISIONS\*

**Common auxiliaries.** The common auxiliaries of form (0...), of place (1/9), of time '...', and of language = are applicable throughout 61.

**Special auxiliaries.** In section 61 special auxiliaries are used to a great extent. These auxiliaries are developed in different ways for individual subsections and have correspondingly different meanings. They agree in part with the special auxiliaries of 5 Natural sciences.

The following synopsis explains the special auxiliaries developed in section 616 Pathology with -00 and -0.

|         |                                                                                                             |           |                                                                             |
|---------|-------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|
| 616-001 | Wounds                                                                                                      | -01/-09   | <i>General viewpoints in pathology</i>                                      |
| -002    | Inflammation. Irritation. Hyperaemia. Obstruction with mucus.                                               | -018      | Histology                                                                   |
|         | Inflammatory irritation                                                                                     | -02       | Aetiology                                                                   |
| -003    | Degenerative processes                                                                                      | -03       | Different forms of diseases, their treatment. Administration of medications |
| -004    | Sclerosis. Induration                                                                                       |           |                                                                             |
| -005    | Disturbances of circulation                                                                                 | -05       | The patient (as a person)                                                   |
| -006    | Tumours. Neoplasms. Blastomas. Choristomas. Haematomas.                                                     | -06       | Complications                                                               |
|         | Oncology                                                                                                    | -07       | Semiology. Symptomatology                                                   |
|         |                                                                                                             | -08       | Treatment                                                                   |
| 616-007 | Physical defects of development. Smallness or largeness of organs. Anomalies. Teratology. Chemical monsters | -091      | Pathological anatomy                                                        |
|         |                                                                                                             | -092      | Pathological physiology. Pathogenesis                                       |
| -008    | Disturbance of function, activity and resistance of organs                                                  | -093/-098 | Bacteriological and parasitological examination                             |
| -009    | Nervous disturbances                                                                                        | -099      | Poisoning                                                                   |

## Notes on UDC 612

### SCOPE

Under 612 are included all problems relating to human physiology, also those common to human and animal physiology. Arrangement under 612 is to be preferred to 591.1 Physiology, zoology. The zoologic character of physiological material is indicated if necessary by the special auxiliary number -019 Comparative physiology. Chemical, physico-chemical, pharmacological, clinical and psychological problems can also be arranged under 612 if they have physiological connections by using the colon as a connecting link. The main locations for these problems are, however, the respective sections, e.g. 615 Pharmacology.

### RELATED SUBJECTS

|        |                                                      |       |                                                     |
|--------|------------------------------------------------------|-------|-----------------------------------------------------|
| 159.9  | Psychology                                           | 577   | General properties of life and living organisms     |
| 340.6  | Forensic medicine and chemistry. Forensic toxicology | 581.1 | Plant physiology, botany                            |
| 343.96 | Criminal pathology                                   | 591.1 | Animal physiology, zoology                          |
| 572    | Anthropology                                         | 615   | Pharmacy. Pharmacology and therapeutics, Toxicology |
| 574/78 | General biology                                      |       |                                                     |

### EXPLANATION OF OTHER SYMBOLS USED IN THE SCHEDULE

The arrow → is used to mean either 'see' or 'see also' according to the content and form of reference.

\* The phrase 'auxiliary signs and subdivisions' is often abbreviated to 'auxiliaries'. Further information about the common auxiliary signs and subdivisions may be found in:

BS 1000A: 1961 'Universal Decimal Classification: Abridged English Edition'. Contains tables of the auxiliaries and brief notes about their use as well as a general introduction to the UDC and an abridgement of the whole scheme.

BS 1000C: 1963 'Guide to the Universal Decimal Classification (UDC)'. Among other things, gives detailed information about the significance and use of the auxiliaries.

# UDC 612 PHYSIOLOGY

## SCHEDULE

### Special Auxiliary Subdivisions

- 612-019 Comparative physiology  
    *Subdivide as in 59*  
        →599 Mammalia, systematic zoology  
-06 Actions. Effects. Influences  
-063 Stimulation. Positive influence  
-064 Antagonistic, negative, retarding influence, *e.g.*  
    612.65-064 Growth-retarding influence  
-08 Experimental technique  
    *Subdivide, where applicable, as 578.08*  
    Biological experiments and observations,  
    *e.g.*
- 612-083 Experiments in vitro  
-084 Experiments in vivo  
-085 Surviving organs, tissues, etc.  
-086 Microscopic observations  
-087 Biometry. Measurement and recording of  
    mechanical quantities  
-089 Surgical operations: Anaesthesia. Dissection  
    technique  
    →612.012 Vivisection

### 612.0 General physiology

- 612.01 General physiological theories  
    .012 Vivisection  
        →179.4 Vivisection. Moral aspect
- 612.013 **LIFE. DEATH. VITALISM**  
    .013.1 **GENERAL**  
        →577.7 Ageing. Longevity. Dying.  
            Death  
        →612.67 Senility. Decay. Ageing.  
            Death  
    .2 Experiments on executed criminals  
    .4 Theories on life and the soul. Vitalism  
    .5 Comparison between man, animals and plants  
        →577.5 Animal and plant compared  
            as forms of life  
    .6 Comparison between living organisms and  
        inorganic things  
    .7 Energy in general  
        →577.6 Dualistic theories on the nature  
            of life. Vital force. Vital-  
            ism. Neo-vitalism
- 612.014 **GENERAL PHYSIOLOGY OF THE CELL  
AND OF THE ORGANISM**  
    →576.3 Cytology, biology
- 612.014.1 **PHYSIOLOGICAL CHEMISTRY OF  
THE CELL**  
    →612.015 Physiological chemistry  
    .11 Aerobic and anaerobic cells
- 612.014.2 **HISTO-MORPHOLOGICAL  
PROPERTIES OF CELLS**  
    .21 Functions of the protoplasm  
    .22 Functions of the cell nucleus  
    .24 Functions of the chromosomes. Chroma-  
        tolysis  
    .26 Functions of the centrosomes
- 612.014.3 **GENERAL PHYSIOLOGY OF THE  
CELL**  
    →576.32 General physiology and moti-  
        lity of the cell
- 612.014.31 Irritability  
    .32 Fatigue
- 612.014.4 **ACTION OF THE ENVIRONMENT ON  
THE CELL**  
    →577.3 Energy exchange in living  
        organisms  
    .41 Effects of atmospheric pressure  
        →612.27 Influence of atmospheric  
            pressure on living organ-  
            isms  
    .42 **Effects of electricity. Electrophysiology**  
        →537 Electricity  
    .421 Electrophysiological technique  
        →615.84 Electrotherapy  
    .2 Static electricity  
    .4 Dynamic electricity  
    .5 High frequency currents  
    .7 Electrical measurements  
    .8 Electrotechnical instruments  
        *Subdivide by linking with 621.3 by*  
        *means of a colon, e.g.*  
        612.014.421.8:621.317.723  
        Electrometer  
    .422 Electrical resistance. Electrical con-  
        ductivity  
    .423 **Electrical phenomena of organisms**  
        *General problems, not relating to*  
        *individual parts of the body,*  
        *belong here*  
    .1 Theory  
    .2 Negative variation  
    .3 Electrotonus  
    .4 Electrical phenomena in resting tissues  
        and body fluids  
    .424 **Action of electricity on organisms**  
        *Denote action of electricity on specific*  
        *organisms by colon, e.g.*  
        612.014.424:612.111 Action of  
            electricity on erythrocytes  
    .2 Effects of static electricity  
    .3 Effects of atmospheric electricity  
    .4 Effects of dynamic electricity  
    .5 Effects of high frequency currents

- 612.014.425 Death by electrocution. Death by lightning  
 .426 Effects of magnetism  
 .427 Galvanotropism  
 .428 Electrotherapy from the physiological point of view  
     →615.84 Electrotherapy  
 .43 Effect of heat and cold  
     →612.59 Effect of heat and cold on the organism  
 .44 Effect of light  
     →612.014.481 Action of radiation  
     →612.84 Physiological optics. Vision  
     →615.831 Phototherapy. Actinotherapy  
 .445 Phosphorescence  
     →535.37 Phosphor. Optics  
     →612.772 Phosphorescent animals  
 .447 Heliotropism. Phototropism  
     →615.831 Phototherapy. Actinotherapy  
 .45 Effect of sounds and vibrations  
     →612.858.76 Effect of aural stimuli on living organisms  
 .46 Effect of chemical substances and poisons  
     →615.7 Chemotherapy  
     →615.9 Toxicology  
 .461 Effect of water  
     .2 Adsorption. Hydration  
     .3 Water content of organisms and tissues  
 .462 Physico-chemical forces  
     →532.71 Osmosis, fluid mechanics  
     .1 Osmosis. Osmotic pressure  
     .11 Donnan equilibria  
     .2 Molecular concentration in organic liquids. Cryoscopy  
         *Subdivide, where appropriate, with colon, e.g.*  
         612.014.462.2:612.32 Cryoscopy of gastric juice  
     .3 Relations between diffusion and osmotic pressure  
     .4 Osmosis and electricity. Ions  
         →537.36 Electrokinematics  
     .5 Colloids. Coagulation. Agglutination. Histological processes for preservation of tissues  
         →541.18 Colloid chemistry  
         →612.398.133 Coagulated proteins. Fibrins  
     .6 Alkalinity. Acidity  
     .7 Viscosity  
         →532.13 Internal friction. Viscosity, fluid mechanics  
     .8 Surface tension  
         →532.61 Surface tension and interfacial tension, fluid mechanics  
     .9 Other physico-chemical forces. Adsorption  
 .463 Action of mineral salts on organisms  
 .464 Action of oxygen, ozone, air (normal or abnormal composition)  
     →612.233 Exhausted air  
 .465 Action of anaesthetics  
 .466 Action of antiseptics  
 .467 Chemotaxis. Chemotropism  
 .469 Action of other chemical substances  
 .47 Action of mechanical forces  
 .477 Geotropism  
 .478 Thigmotaxis  
 .48 Other effects  
 .481 Radiation effects

- 612.014.481.1 X-Rays  
     *Denote action of X-rays on specific organisms by colon, e.g.*  
     612.014.481.1:612.79 Action of X-rays on the skin  
 .482 Action of radioactive substances  
     .1 Alpha rays  
     .2 Other positive rays  
     .3 Beta rays  
     .4 Gamma rays  
     .5 Cosmic rays (Millikan)  
     .6 Neutrons  
 .483 Production and action of X-rays  
 .49 Mesology. Environmental adaptation  
     →575.3 Species formation by adaptation to environment  
 .5 Constitutional effects

## 612.015 PHYSIOLOGICAL CHEMISTRY

→577.1 Biological chemistry

## 612.015.1 ENZYMES. FERMENTS

- .11 Oxydizing and reducing  
 .12 Hydrolytic  
 .13 Proteolytic  
 .14 Lipolytic  
 .15 Amylolytic  
 .16 Glycolytic  
 .161 Alcoholic  
 .2 Normal composition of the body  
     →612.014.1 Physiological chemistry of the cell  
     →612.018 Hormones  
     →612.392.6 Mineral salts  
     →612.396/.398 Carbohydrates. Fats. Protein  
 .21 Organ extracts  
 .22 Opotherapy. Organotherapy from the physiological point of view

## 612.015.3 METABOLISM

- .31 Mineral metabolism  
     →612.392.6 Mineral salts  
 .32 Metabolism of carbon  
     →612.22 Chemistry of respiration  
     →612.396 Carbohydrates  
     →612.397 Fats  
 .33 Metabolism of nitrogen  
     →612.461.23 Nitrogen excretion. Nitrogen metabolism  
 .34 Metabolism of substances foreign to the body. Excretion of poisons  
 .346 Metabolism of non-nitrogenous substances  
 .347 Metabolism of crystallizable nitrogenous substances. Metabolism of ammonia  
 .348 Protein metabolism  
     →612.398 Protein  
 .349 Metabolism after death. Autolysis  
     *Subdivide, where appropriate, with a colon, e.g.*  
     612.015.349:612.35 Autolysis in the liver  
 .35 Influence of temperature on chemical processes in the organism  
 .36 Reduction. Hydration. Synthesis within the organism  
 .38 Influence of the nervous system on metabolism  
 .39 Metabolism in disease  
 .4 Pigments  
     →616.003.829 Pigment degeneration. Autogenous pigmentation

**612.015.6****PHYSIOLOGY****612.018.2**

612.015.6 Effects and action of vitamins. Vitamin content of the tissues and body fluids  
*Subdivide as 577.16*

- 577.16 Vitamins, biochemistry
- 591.133.1 Vitamins, physiological chemistry of foods and of nutrition
- 616.391 Avitaminoses and hypervitaminoses
- 641.18 Vitamins. Food
- 664.3.033.94 Addition of vitamins to edible oils and fats

612.017 IMMUNITY. ADAPTATION. TOXINS. ANTITOXINS

- 576.8.097 Antigens and antibodies, bacteriology

612.017.1 IMMUNITY

- .11 Natural and inherited immunity
- .12 Artificial (experimental) immunity

612.017.2 ADAPTATION

- 612.014.46 Effect of chemical substances and poisons
- 612.314.3 Natural immunity against poisons

.3 Anaphylaxis. Hypersensitivity

- 612.118.22 Toxic and anti-toxic action

.31 Spontaneous anaphylaxis. Idiosyncrasy

.32 Experimental anaphylaxis

.33 Physical and chemical phenomena

.34 Morphological phenomena, e.g. haemolysis

.35 Anti-anaphylaxis

612.017.4 TOXINS. ANTITOXINS

- 612.118.22 Toxic and anti-toxic action

612.018 HORMONES. INTERNAL SECRETIONS

- 577.17 Hormones, biochemistry

→612.4 Glandular physiology. Secretion. Excretion

.2 Effects of hormones

- 615.357 Hormones

## Principal Divisions

## 612.1/8 Systematic physiology

|        |                                                                                                   |         |                                                                                                        |
|--------|---------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------|
| 612.1  | <b>BLOOD. CIRCULATION</b>                                                                         | 612.112 | <b>Leucocytes and amoeboid cells</b>                                                                   |
| 612.11 | <b>PROPERTIES OF BLOOD IN GENERAL</b>                                                             | .1      | Chemical composition                                                                                   |
| .111   | <b>Red blood corpuscles. Erythrocytes</b>                                                         | .11     | Enzymes. Relation to digestion                                                                         |
| .1     | Chemical composition                                                                              | .12     | Formation of leucocytes                                                                                |
|        | →612.117 Physical properties of blood                                                             | .13     | Life history of leucocytes                                                                             |
| .11    | <b>Haemoglobin</b>                                                                                | .2      | Movements. Irritability                                                                                |
|        | →612.127 Blood gases                                                                              | .3      | Phagocytosis. Phagolysis                                                                               |
|        | →612.398.145.2 Haemoglobin and similar substances                                                 | .31     | Opsonins                                                                                               |
|        | →615.739.136 Haemoglobin, Haemol. Haemogallol                                                     | .4      | Diapedesis                                                                                             |
| .12    | Oxyhaemoglobin. Carbamino-derivatives of haemoglobin                                              | .5      | Action on blood coagulation                                                                            |
| .13    | Chemical composition of haemoglobin                                                               |         | →612.115 Blood coagulation                                                                             |
| .14    | Carboxyhaemoglobin. Action of carbon monoxide on the blood                                        | .6      | Leucocytes in disease. Digestion leucocytosis                                                          |
|        | →612.111.4 Action of poisons on blood corpuscles                                                  |         | →616.155.3 Pathology and semeiology of leucocytes                                                      |
| .15    | Spectroscopy of the blood                                                                         | .7      | Counting. Technique                                                                                    |
|        | →612.117 Physical properties of blood                                                             | .71     | Differential count of leucocytes                                                                       |
| .16    | Methaemoglobin and derivatives                                                                    | .8      | Numerical relations between leucocytes and erythrocytes                                                |
|        | →612.461.275 Porphyrins, urinary pigments                                                         | .9      | <b>Other forms of leucocytes. Physiological morphology of leucocytes</b>                               |
| .17    | Isotonia. Osmosis and diffusion                                                                   | .91     | Polymorphonuclear neutrophil leucocytes                                                                |
| .19    | Chemical substances in blood corpuscles. Lecithin, urea, cholesterol                              | .92     | Polymorphonuclear eosinophil leucocytes                                                                |
| .2     | Number of blood corpuscles                                                                        | .93     | Basophils and mast cells                                                                               |
| .22    | Volume of blood corpuscles                                                                        | .94     | <b>Lymphocytes</b>                                                                                     |
|        | →612.116 Total blood volume                                                                       |         | →612.42 Lymphatic system. Lymph. Lymphocytes (System of lymphatic vessels) Reticulo-endothelial system |
| .3     | <b>Formation of blood corpuscles</b>                                                              | .95     | Monocytes                                                                                              |
|        | →612.119 Haematopoiesis                                                                           | .113    | <b>Arterial blood</b>                                                                                  |
|        | →612.356 Haematopoietic function of the liver                                                     | .114    | <b>Venous blood</b>                                                                                    |
|        | →612.411 Function of the spleen as a blood reservoir and filter                                   | .115    | <b>Blood coagulation</b>                                                                               |
| .31    | <b>Life history of red blood cells</b>                                                            |         | →612.112.5 Action of leucocytes on blood coagulation                                                   |
| .32    | Destruction of red blood corpuscles                                                               |         | →615.151.5 Disorders of blood coagulation                                                              |
|        | →612.429 Reticulo-endothelial system                                                              | .1      | Fibrin. Fibrinoplastin                                                                                 |
| .33    | Diet and other factors in the development of red blood corpuscles                                 | .11     | Composition. Chemical properties                                                                       |
| .4     | Action of poisons on blood corpuscles                                                             | .12     | Fibrinogens and fibrinoplastic enzymes. Fibrinogen. Thrombin                                           |
|        | →612.111.14 Carboxyhaemoglobin                                                                    | .13     | Fibrin content                                                                                         |
| .44    | Agglutinating substances                                                                          | .2      | Coagulation time. Coagulometer                                                                         |
|        | →612.118.22 Toxic and anti-toxic action of the blood                                              | .3      | Substances affecting blood coagulation                                                                 |
| .45    | Haemolytic substances                                                                             |         | →615.771.6 Anticoagulants. Haemolytics                                                                 |
|        | →612.118.221.3 Haemolysis                                                                         | .31     | Peptones                                                                                               |
| .6     | Red blood corpuscles in pathological conditions                                                   | .32     | Calcium salts                                                                                          |
|        | →616.155.1 Pathology and semeiology of the red blood cell, the erythrocyte                        | .33     | Haemophils                                                                                             |
| .7     | Other red blood corpuscles. Spherocytes. Haemoconiae. Blood platelets. Haemotoblasts. Microcytes. | .35     | Accelerating forces. Heparin                                                                           |
| .9     | Other blood pigments. Chlorophylls and derivatives. Phylloerythrins                               | .38     | Physical factors, e.g. heat, cold                                                                      |
|        |                                                                                                   | .4      | Haemophilia                                                                                            |
|        |                                                                                                   |         | →616.151.5 Haemophilia                                                                                 |
|        |                                                                                                   | .116    | <b>Total blood volume</b>                                                                              |
|        |                                                                                                   |         | →612.111.22 Volume of blood corpuscles                                                                 |
|        |                                                                                                   | .2      | <b>Haemorrhage. Anaemia</b>                                                                            |
|        |                                                                                                   |         | Haemorrhage or anaemia of specific organs is denoted by a colon, e.g. 612.116.2:612.46                 |
|        |                                                                                                   |         | Haemorrhage of the kidney                                                                              |

|            |                                                                                   |                               |                                                                      |
|------------|-----------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------|
| 612.116.21 | Haemostatics                                                                      | 612.126.31                    | Blood potassium                                                      |
| .3         | Blood transfusion                                                                 | .127                          | Blood gases                                                          |
|            | →615.38 Blood transfusion                                                         |                               | →612.111.11 Haemoglobin                                              |
| .117       | Physical properties of blood                                                      |                               | →612.23 Gaseous exchange in the blood                                |
|            | Subdivide as 53 Physics                                                           |                               | →612.26 Tissue respiration                                           |
|            | →612.111.1 Chemical composition of blood                                          | .1                            | Technique of gas determination                                       |
| .1         | Mechanical properties. Specific gravity                                           | .2                            | Oxygen                                                               |
| .2         | Kinetic properties. Viscosity. Surface tension. Osmotic pressure. Vapour pressure | .3                            | Carbon dioxide                                                       |
| .4         | Action of vibrations                                                              | .4                            | Nitrogen                                                             |
| .5         | Optical properties. Colour. Refraction. Absorption of light                       | .128                          | Enzymes                                                              |
| .6         | Thermal properties                                                                | →577.15 Enzymes, biochemistry |                                                                      |
| .7         | Electrical properties                                                             | .129                          | Other chemical substances                                            |
|            |                                                                                   | .1                            | Anomalous substances. Substances only exceptionally present in blood |
| .118       | Biological properties of blood                                                    | 612.13                        | CIRCULATION OF THE BLOOD. HYDRODYNAMICS OF THE CIRCULATION           |
| .2         | Biological properties of blood                                                    |                               |                                                                      |
| .22        | Toxic and anti-toxic action                                                       | .133                          | Arterial circulation                                                 |
|            | →612.017.3 Anaphylaxis                                                            |                               | →612.143 Blood pressure in arteries                                  |
|            | →612.017.4 Toxins. Anti-toxins                                                    | .134                          | Venous circulation                                                   |
| .221       | Specific reactions of blood, albuminoids                                          |                               | →612.144 Blood pressure in veins                                     |
|            | →340.6 Forensic medicine                                                          | .1                            | Air in the veins                                                     |
| .1         | Precipitation reaction                                                            | .2                            | Venous pulse                                                         |
| .2         | Haemagglutination. Blood groups                                                   |                               | →612.16 Pulse                                                        |
|            | →612.111.44 Agglutinating substances                                              | .135                          | Capillary circulation                                                |
|            | →615.38 Blood transfusion                                                         |                               | →612.145 Blood pressure in capillaries                               |
| .3         | Haemolysis                                                                        | 612.14                        | BLOOD PRESSURE                                                       |
|            | →612.111.45 Haemolytic substances                                                 |                               | →616.12-088.331.1 Hypertension. Hypertonia                           |
|            | →616.15 Pathologic haematology                                                    | .141                          | Measurement. Sphygmomanometers                                       |
| .223       | Action of blood on bacteria                                                       | .143                          | Blood pressure in arteries                                           |
| .24        | Toxic and anti-toxic substances of the blood                                      |                               | →612.133 Arterial circulation                                        |
| .7         | Blood in the various organs and parts of the body                                 | .144                          | Blood pressure in veins                                              |
|            |                                                                                   | .145                          | →612.134 Venous circulation                                          |
| .119       | Haematopoiesis. Blood formation                                                   | .146                          | Blood pressure in capillaries                                        |
|            | →612.111.3 Formation of blood corpuscles                                          |                               | →612.135 Capillary circulation                                       |
|            | →612.41 Haemopoietic system. Spleen and bone marrow                               | .1                            | Action of various substances on blood pressure and circulation       |
| 612.12     | CHEMICAL PROPERTIES OF BLOOD                                                      | .2                            | Effects of respiration and air frequency                             |
| .121       | Reaction of the blood                                                             | .3                            | →612.213 Influence of respiration on the circulation                 |
| .2         | Determination of acidity and alkalinity. Hydrogen ion concentration               | .4                            | Action of chemical substances and organ extracts                     |
| .3         | Variation and regulation of acidity and alkalinity                                | .148                          | Blood pressure in disease                                            |
| .122       | Blood carbohydrates and their derivatives                                         |                               | Interaction of blood circulation, blood pressure and work            |
|            | →612.396 Carbohydrates                                                            |                               | Blood pressure in the lesser circulation                             |
| .1         | Glucose                                                                           | 612.15                        | →612.213 Influence of respiration on the circulation                 |
| .2         | Glycogen                                                                          |                               |                                                                      |
| .3         | Glycolytic enzymes                                                                | .16                           | CIRCULATION RATE IN ARTERIES, VEINS, CAPILLARIES. MEASUREMENTS       |
| .123       | Fats, fatty substances, lipoids, soaps, glycerine in blood                        |                               | Pulse                                                                |
|            | →612.397 Fats                                                                     | .161                          | →612.134.2 Venous pulse                                              |
| .124       | Albuminoids. Colloidal nitrogen compounds                                         | .1                            | Sphygmograph                                                         |
|            | →612.398.12 Blood serum                                                           |                               | Sphygmomanometer                                                     |
| .125       | Non-colloidal nitrogen compounds                                                  | .166                          | →612.141 Measurement, Sphygmomanometers                              |
| .1         | Serum pigments                                                                    |                               | The pulse in disease                                                 |
|            | →612.357.131 Bilirubin                                                            | 612.17                        | THE HEART                                                            |
|            | →612.461.27 Urinary pigments                                                      | .171                          | Mechanics of cardiac contraction                                     |
| .126       | Mineral substances                                                                |                               | Technique of studying cardiac contraction. Cardiograms               |
|            | Subdivide as 546 Inorganic chemistry                                              |                               |                                                                      |
|            | →612.392.6 Mineral salts                                                          |                               |                                                                      |

- 612.171.3 Valves  
 .5 Heart sounds  
 .56 Heart sounds in disease  
     →616.12-071.6 Auscultation  
 .6 Intracardiac pressure  
 .7 Teratology of the heart. Malformations of the heart
- .172 The heart as muscle: irritability, contractility and physiological morphology  
 .1 The role of the blood and coronary arteries. Cardiac anaemia  
 .2 Cardiac rhythm  
 .3 Electrical stimulation of the heart.  
     Refractory stage  
 .31 Extrasystoles, premature beats  
 .4 Electromotive force. Electrocardiogram  
 .5 Survival of the heart. Artificial respiration  
 .6 Physiological morphology. Pericardium  
 .61 Conducting system  
     →616.124.7 Bundle of His.  
     Tawara's nodes
- .173 Work of the heart: chemical, dynamic, thermal processes  
 .1 Chemical composition of the heart  
 .2 Intracardiac pressure  
 .3 Work of the heart  
 .31 Extrasystoles, premature beats  
 .4 Diastolic filling of the heart: dilatation  
     →616.12-007.61 Hypertrophy.  
     Cor bovinum
- .174 Toxic effects on the heart  
     →615.22 Substances affecting the circulation  
 .1 Atropine  
 .2 Anaesthetic agents
- .176 Behaviour of the heart under stress  
     →612.232.3 The heart in asphyxia  
     →616.12 Heart, pathology  
 .2 Due to disease  
 .4 Due to work
- .178 Innervation of the heart  
 .1 Pneumogastricus. Vagus  
     →612.819.91 Nervus vagus  
 .2 Sympathetic nervous system  
     →612.897 Action of the sympathetic nervous system on the heart  
 .3 Ganglia of the heart  
 .4 Influence of the cerebrum  
     →612.825.4 Action of the brain on vegetative functions  
 .5 Influence of the medulla oblongata  
     →612.828 Medulla oblongata  
 .6 Syncope and cardiac reflexes  
     →612.833 Reflex activity  
 .7 Nervus depressor cordis. Cyon's nerve
- .179 Other problems  
 .1 Cardiac physiology in embryonic life  
     →612.64.017 Physiology of the heart during the development of the organism  
 .2 Cardiac physiology of the foetus
- 612.18 VASOMOTOR NERVES  
 .181 Action of the nerves and nerve centres on blood vessels
- 612.181.1 Influence of the cerebrum  
 .2 Influence of the medulla oblongata  
 .3 Influence of the spinal cord  
 .4 Influence of the sympathetic nervous system  
 .5 Influence of cholinergic nerve fibres  
 .6 Influence of adrenergic nerve fibres  
 .182 Action of vasomotor nerves on arterial blood pressure  
 .183 Vasoconstrictors  
 .184 Vasodilators  
 .185 Toxic effects on the vasomotor nerves  
 .186 The vasomotor nerves in disease  
     →616.8-009.86 Vasomotor disturbances
- .1 Actiology of oedema  
     →612.381 Oedema  
     →616-005.98 Oedema. Hydrops. Anasarca, pathology  
 .187 Vasomotor nerves in organs  
     *The organ is specified as in the subdivisions of 612, e.g.*  
     612.187.35 Influence of vasomotor nerves on the liver
- .188 Erectile tissue  
     →612.612 Erection in man and woman. Penis. Clitoris
- .189 Changes in the volume of organs
- 612.19 ACTION OF VARIOUS ORGANS ON BLOOD CIRCULATION
- 612.2 RESPIRATION  
     →612.793 Cutaneous respiration
- 612.21 RESPIRATORY MOVEMENTS AND MECHANICS OF RESPIRATION  
 .211 Pneumography. Types of respiration  
 .212 Elasticity of the lungs and intrapleural pressure  
 .213 Influence of respiration on the circulation of the blood  
     →612.146.1 Effects of respiration and air deficiency
- .215 Special physiology of the respiratory apparatus  
 .1 Bronchi  
 .2 Trachea  
 .3 Smooth muscles in the lung tissue  
 .4 Upper respiratory tract. (Nose. Pharynx)  
 .41 Dead space in the lung  
     →612.216.2 Pulmonary ventilation  
     612.24 Total lung capacity  
 .5 Pleura. Mediastinum  
 .8 Pulmonary circulation  
     →612.148 Blood pressure in the lesser circulation  
 .9 Absorption of fluids in the lung  
     →612.385 Absorption through the lungs
- .216 Respiratory frequency and rhythm  
 .1 Respiratory sounds  
 .2 Pulmonary ventilation  
     →612.215.41 Dead space in the lung  
     →612.24 Total lung capacity  
 .3 Artificial respiration. Artificial changes of respiration  
     →612.232.1 Artificial respiration in asphyxia  
     →615.816 Artificial respiration