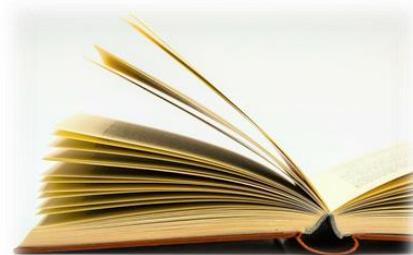




Study literature

The department participated in the preparation of numerous books and textbooks (in English), as well as electronic versions of teaching aids, that are available for students on the Portal UPJŠ in Košice, FM: <https://portal.lf.upjs.sk/index-en.php>



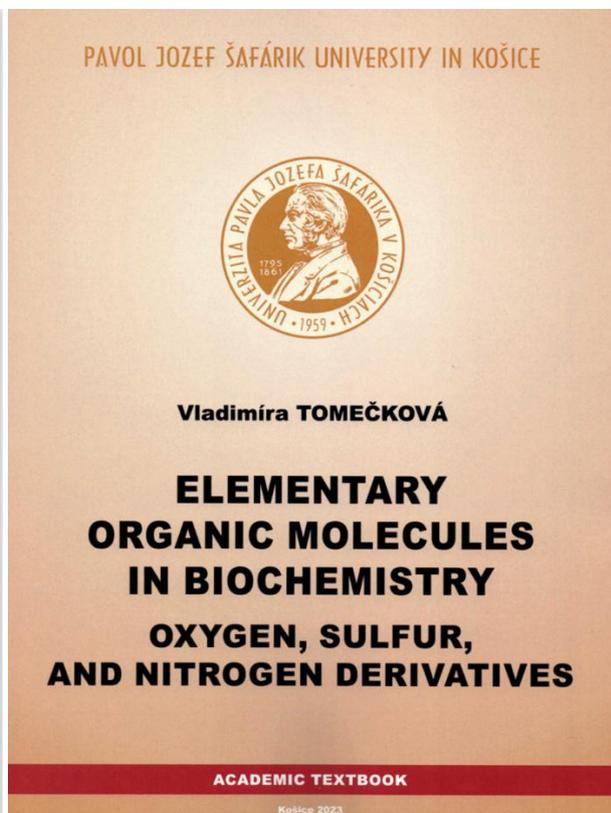
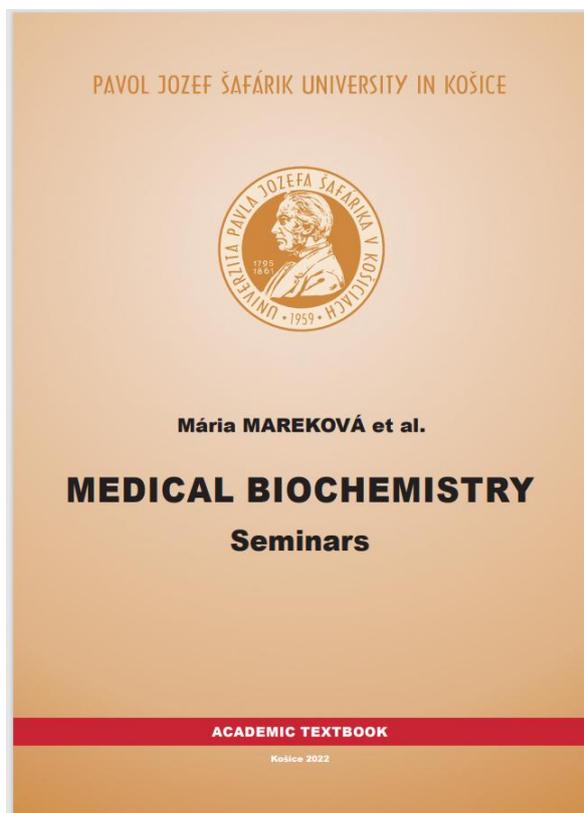
A complete list (including books and electronic teaching aids in Slovak) can be found at website of department:

https://www.upjs.sk/public/media/9608/Ucebnice%20a%20skripta_21.pdf

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Latest additions to Medical Biochemistry





Electronic teaching aids – Lectures

Medical Chemistry

Medical Chemistry – Lectures for General Medicine students

prof. Ing. Mária Mareková, CSc., doc. Ing. Katarína Dubayová, PhD., doc. RNDr. Marek Stupák, PhD.,
doc. RNDr. Vladimíra Tomečková, PhD., doc. Mgr. Peter Urban, PhD.:



The subject Medical Chemistry includes selected chapters from general, inorganic, physical and organic chemistry. Teaching focuses mainly on bioorganic chemistry, which is a static part and an introduction to the study of medical biochemistry. Knowledge of the structure and function of chemical substances and compounds, as well as their interaction and factors which can influence these interactions is very important for students of General Medicine. Medical Chemistry represent the basis especially for the study of Medical Biochemistry, Pathobiochemistry and Clinical Biochemistry.

<https://portal.lf.upjs.sk/articles.php?aid=250>

Chemistry of Dental Materials – Lectures for Dental Medicine students

doc. RNDr. Marek Stupák, PhD., doc. Ing. Beáta Hubková, PhD., RNDr. Jana Mašlanková, PhD., doc. RNDr. Lukáš Smolko, PhD.:



The subject Chemistry of Dental Materials includes selected chapters from general, inorganic, and physical chemistry. Teaching focuses mainly on introduction to the study of the chemical properties of materials routinely used in dentistry. The lectures are focused on selected parts of the study of metals, including noble metals and their alloys. Furthermore, attention is focused on ceramic materials, on dental cements, as well as on polymerization and substances resulting from polymerization and used in dentistry for both restorative and prosthetic purposes. Information about dental materials, auxiliary dental materials, as well as the importance of polymerization in dentistry is crucial for future dentists.

<https://portal.lf.upjs.sk/articles.php?aid=38>

Medical Biochemistry

Medical Biochemistry – Lectures for General Medicine students

prof. Ing. Mária Mareková, CSc., doc. Ing. Katarína Dubayová, PhD., doc. RNDr. Marek Stupák, PhD.,
doc. doc. Mgr. Peter Urban, PhD.:



Medical Biochemistry has an irreplaceable role in study of General Medicine. The students should learn about biochemical reactions in all living systems, especially in the human body. The knowledge will help them later to diagnose and treat many diseases correctly. In firsts semester is study concentrated to metabolic processes connected with metabolism of nutrients (e.g. saccharides, lipids, proteins, nucleic acids). In second semester is teaching focused to study metabolism of organs (e.g. liver, kidney, muscles, hard tissue, skin), chemical communications and introduction to Clinical Biochemistry.

<https://portal.lf.upjs.sk/articles.php?aid=165>



Medical Biochemistry – Lectures for Dental Medicine students

prof. Ing. Mária Mareková, CSc., doc. Ing. Katarína Dubayová, PhD., doc. RNDr. Marek Stupák, PhD.,
doc. doc. Mgr. Peter Urban, PhD.:



Medical Biochemistry has an irreplaceable role in study of Dental Medicine. Students should learn about the biochemical reactions that occur in the human body. The knowledge will help them better understand the processes that occur in the mouth. In the first semester, the study is focused on metabolic processes involved in the metabolism of nutrients (e.g., saccharides, lipids, proteins, and nucleic acids). In the second semester, the teaching focuses on the metabolism of organs (e.g., liver, kidney), hard tissues, and oral biochemistry and pathobiochemistry (e.g., dental plaque, tooth decay, and tartar).

<https://portal.lf.upjs.sk/articles.php?aid=39>

Clinical Biochemistry

Clinical Biochemistry – Lectures

MUDr. Eva Ďurovcová, PhD.



Clinical biochemistry in 5th year study of medicine is an extension of the basic rate of Medical Biochemistry from 2nd year. It is a highly applied biochemistry, which provides teachers - doctors with experience in clinical biochemistry. The aim of the course is to provide information on biochemical investigation methods for selected diseases and diagnostic options, and to refer to the relationship between metabolism and laboratory values in model patients in relation to the expected diagnosis. Correct indication and interpretation of clinical biochemistry tests is an important part of a physician's daily work.

<https://portal.lf.upjs.sk/articles.php?aid=145>

Electronic teaching aids – Books, Practical exercises

Medical Chemistry

Chemistry – Repetitorium

doc. Mgr. Peter Urban, PhD., RNDr. Lukáš Smolko, PhD., RNDr. Jana Mašlanková, MUDr. Anna Birková, PhD., RNDr. Beáta Čižmárová, PhD., Ing. Beáta Hubková, PhD., doc. RNDr. Marek Stupák, PhD., prof. Ing. Mária Mareková, CSc.:



Knowledge of the structure and function of chemical substances and compounds, as well as their interactions and factors which can influence these interactions are very important for study Medical Chemistry and Biochemistry. The supporting materials are repeating of high school chemistry and represent the summarization of knowledge's from high school. All listed information can help the student to better prepare for exam from Medical Chemistry.

<https://portal.lf.upjs.sk/articles.php?aid=236>



Medical Chemistry – Calculations

doc. RNDr. Marek Stupák, PhD., MUDr. Anna Birková, PhD., Ing. Beáta Hubková, PhD., doc. RNDr. Miroslava Rabajdová, PhD., doc. Mgr. Peter Urban, PhD., RNDr. Beáta Čižmárová, PhD., prof. Ing. Mária Mareková, CSc.:



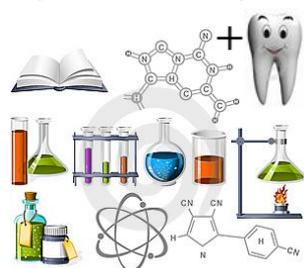
Proper administration of individual medications and reagents is of the utmost importance in the clinical practice of future doctors. It can be affected by age, body weight, kidney and liver health, and other health conditions. Subject Medical Chemistry is therefore an essential part of the theoretical education at medical faculties. The basics for the successful completion of the course are also basic chemistry calculations that are listed in the following study material.

<https://portal.lf.upjs.sk/articles.php?aid=232>

Medical Chemistry – “Hand book” for students of General and Dental Medicine

doc. RNDr. Marek Stupák, PhD., RNDr. Lukáš Smolko, PhD., doc. Mgr. Peter Urban, PhD., RNDr. Jana Mašlanková, PhD., Ing. Beáta Hubková, PhD., RNDr. Beáta Čižmárová, PhD., MUDr. Anna Birková, PhD., doc. RNDr. Vladimíra Tomečková, doc. RNDr. Miroslava Rabajdová, PhD., PhD., doc. Ing. Katarína Dubayová, PhD., prof. Ing. Mária Mareková, CSc.:

This publication is intended mainly for students of medicine studying at the UPJŠ in Košice, Faculty of Medicine. The textbook covers the basic knowledge of selected topics of general, physical, inorganic, organic and bioorganic chemistry required for successful completion of the course of Medical



Chemistry. Knowledge of the structures and functions of chemical substances and compounds, as well as their interactions and factors of surroundings influencing those interactions is very important for next study medical biochemistry incoming physicians. For better and easier understanding is the text appropriately supplemented with figures, tables, and numerous of chemical schemes. The separate part of this publication presents the chemistry of the most important dental materials used in clinical practise of future dentists, including the properties of metals, polymers and impression materials.

<https://portal.lf.upjs.sk/articles.php?aid=69>

Practical exercises from Medical Chemistry

RNDr. Lukáš Smolko, PhD., RNDr. Ivana Špaková, PhD., Ing. Beáta Hubková, PhD., doc. RNDr. Marek Stupák, PhD., RNDr. Jana Mašlanková, PhD., doc. Mgr. Peter Urban, PhD., doc. RNDr. Miroslava Rabajdová, PhD., doc. RNDr. Vladimíra Tomečková, PhD., prof. Ing. Mária Mareková, CSc.:



Practical exercises from Medical Chemistry is a set of experimental exercises designed for a better understanding of the subject. Laboratory manuals for the practical exercises are arranged into weeks according to the syllabus (WT) and contain theoretical introduction as well as experimental procedures for each exercise. Published material represents an effective instrument for understanding of the basic principles of Medical Chemistry.

<https://portal.lf.upjs.sk/articles.php?aid=80>

Revised and supplemented first published version “Practical exercises from Medical Chemistry”.

Authors: Stupák M., Rabajdová M., Mašlanková J., Urban P., Tomečková V., Mareková M.



Chemistry of Dental Materials – Instructions and protocols for practical exercises

doc. Ing. Beáta Hubková, PhD., RNDr. Jana Mašlanková, PhD., doc. RNDr. Lukáš Smolko, PhD., doc. RNDr. Marek Stupák, PhD.

Practical exercises from Chemistry of Dental Materials are a set of experimental exercises designed to improve understanding of the subject. Practical experimental tasks help students become familiar with basic chemical calculations and the chemical properties of materials commonly used in dentistry. They contribute to a better understanding of properties such as hydroxyapatite, metal corrosion, and other properties of elements in dental materials. Separate attention is paid to dental plaster – its preparation and properties. Laboratory manuals for the practical exercises are organized by week according to the syllabus and include a theoretical introduction and experimental procedures for each exercise.



<https://portal.lf.upjs.sk/articles.php?aid=161>

Medical Biochemistry

Practical exercises from Medical Biochemistry for students of General Medicine

RNDr. Jana Mašlanková, PhD., doc. Mgr. Peter Urban, PhD., doc. RNDr. Vladimíra Tomečková, PhD., doc. RNDr. Marek Stupák, PhD., doc. RNDr. Miroslava Rabajdová, PhD., prof. Ing. Mária Mareková, CSc.:



practical laboratory exercise and verification of knowledge from medical biochemistry. Exercises are arranged into weeks in winter term (WT) and summer term (ST), like it is in Syllabus of Lectures and practical exercises (WT, ST). Students can apply their manual skill in performing of the experiments, and also train their ability in evaluation of results and making of diagnoses.

<https://portal.lf.upjs.sk/articles.php?aid=162>

Revised and supplemented first published version “Practical exercises from biochemistry”.

Authors: Tomečková V., Kron I., Mareková M.

Pavol Jozef Šafárik University in Košice, Košice 2011, ISBN 978-80-7097-874-0.

Practical exercises from Medical Biochemistry for students of Dental Medicine

doc. Mgr. Peter Urban, PhD., doc. RNDr. Vladimíra Tomečková, PhD., RNDr. Jana Mašlanková, doc. RNDr. Marek Stupák, PhD., prof. Ing. Mária Mareková, CSc.:



The laboratory manuals are developed to the foreign students of medicine for practical laboratory exercise and verification of knowledge from medical biochemistry. Exercises are gathered into bigger groups by topics. Exercises are arranged into weeks, in summer term (ST) and winter term (WT), like it is in Syllabus of Lectures and practical exercises (ST, WT). Students can apply their manual skill in performing of the experiments, and also train their ability in evaluation of results.

<https://portal.lf.upjs.sk/articles.php?aid=93>

Revised and supplemented first published version “Practical exercises from biochemistry”.

Authors: Tomečková V., Kron I., Mareková M.

Pavol Jozef Šafárik University in Košice, Košice 2011, ISBN 978-80-7097-874-0.

Clinical Biochemistry

Clinical Biochemistry – selected chapters, e-book

MUDr. Eva Ďurovcová, PhD., prof. Ing. Mária Mareková, CSc.:



The electronic textbook of Clinical Biochemistry – selected chapters has the ambition to become a practical aid for senior medical students and beginning doctors in the study of laboratory medicine. It should make it easier for them to orientate themselves in routinely used clinical-biochemical examinations and could form a springboard for a more detailed study of laboratory methods and their use in diagnostic and monitoring algorithms. The textbook focuses on disorders of water-ion and acid-base balance disorders, and basic diagnostics of diseases of selected organs.

ISBN 978-80-8152-937-5 (e-publication); www.unibook.upjs.sk

<https://unibook.upjs.sk/img/cms/2020/lf/clinical-biochemistry.pdf>

<https://portal.lf.upjs.sk/articles.php?aid=114>

Older additions of Medical Biochemistry and Clinical Biochemistry

