

Ministry of Health of Ukraine  
Ukrainian Medical Stomatological Academy

# **OPTIMIZATION OF CLINICAL AND LABORATORY STAGES OF MAKING OF COMPLETE REMOVABLE DENTURES DEPENDING ON THE CONDITION OF THE TISSUES OF FOUNDATION AREAS**

This book supports the professional development of stomatological students of establishments of higher education, postgraduate students, and doctors of dental medicine with English language form of study

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*Recommended by the Academic Council of the Ukrainian Medical Stomatological Academy as a textbook for English speaking students – graduates of master's degree, who study for specialty 221 "Dentistry" in higher education institutions of the Ministry of Health of Ukraine (Protocol of the meeting № 5, December 11, 2019)*

**Authors:**

Prof. Dvornyk V.M., Assoc. Kuz G.M., Prof. Belikov O.B., Assoc. Teslenko O.I., Assoc. Yerys L.B., assistant Lugova L.O., assistant Shemetov O.S., assistant Martynenko I.M., assistant Marchenko K.V.

**Reviewers:**

**Fastovets Olena Oleksandrivna** – Head of the Department of Orthopedic Dentistry, SE "Dnipropetrovsk Medical Academy of Ministry of Health of Ukraine", doctor of medical sciences, professor;

**Yanishen Ihor Volodymyrovych** – Head of the Department of Orthopedics Dentistry, Kharkiv National Medical University, doctor of medical sciences, professor;

**Kaskova Lyudmyla Fedorivna** – Head of the Department of Pediatric Therapeutic Dentistry with Prevention of Dental Diseases, Ukrainian Medical Stomatological Academy, doctor of medical sciences, professor;

**Belyaeva Olena Mykolayivna** – Head of the Department of Foreign Languages and Latin and Medical Terminology.

**Optimization of clinical and laboratory stages of making of complete removable dentures depending on the condition of the tissues of foundation areas** : manual / V.M. Dvornyk, G.M. Kuz, O.B. Belikov et al. – Lviv : Publisher Marchenko T. V., 2023. – 148 p.

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Issues of functional and topographic anatomy of the dental system after the complete loss of natural teeth highlighted in the manual presented by the team of authors of the department of orthopedic dentistry with implantology. Based on the analysis of the data in this discipline, the essence and sequence of clinical and laboratory stages of complete removable dentures fabrication are reviewed, taking into account individual features of the structure of the foundation area and use elaborations of the department's staff aimed at improving the fixation and stabilization of dentures.

The manual is intended for students of dental faculties of higher education institutions, interns and English-speaking dentists.

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## Introduction

Prosthetics with complete removable dentures is one of the most advanced types of prosthetics. Loss of teeth leads to a number of complications of local and general nature: dysfunction of chewing, speech and aesthetics, changes in the jaws, mucous membrane of the oral cavity, tongue, temporomandibular joint, disorders of the gastrointestinal tract, and the psychological state of the patient.

According to Vares E.Y. (1993), 15% of people aged 40 and older, require complete removable dentures. Other authors note that people with complete absence of teeth make up 12–18 % of the total number of people who need prosthetic treatment. In addition, 20–25 % of patients don't use complete dentures manufactured for them (Vasilenko V.M., Zinoviev G.I., Korzh V.G., 1992). The reasons are the following: poor fixation and stabilization of complete removable dentures, as well as injury to the mucous membrane during chewing. Many patients explain the reasons for refusal to use dentures as an inconvenience and uncomfortable (complete dentures on the lower jaw hinder the movements of the tongue). Repeated visits to a doctor for new dentures increases the number of people requiring prosthetics with complete removable dentures (Vares E.Y., 1983).

Over the time, the atrophy of the alveolar ridges increases, the masticatory surface of the plastic teeth abrades, and there is a need for the manufacture of a new denture in 3-5 years. It should be added that low quality of manufacturing of complete removable dentures in conditions of mass prosthetics of patients and obsolete technologies exist (Vares E.Y., 1984; Zhulev E.N., 1997).

Complex clinical conditions especially in the lower jaw play an important role in the prognosis of prosthetic quality. They create additional difficulties at the different stages of the manufacture of prosthetics, and in the process of using them. Unwanted factors include different bony protuberances, acute and semi-sharp edges of the inner oblique line, uneven atrophy of the alveolar ridges of the mandible, predominantly in the frontal area; uniform atrophy of the entire alveolar process (Svirin B.V., Markov B.P., Razumenko G.P., 1991). A particularly thin and overly fluffy mucous membrane also negatively affects the quality of the prosthesis (Pogodin V.S., 1975).

The complete loss of teeth poses to the dentist the task to restore some of the missing morphological and functional elements of the masticatory apparatus. They are optimal height of the lower part of the face, occlusal contact of the tooth rows, central relation and dental articulation, sagittal and transversal occlusal curves; to pick up the shape and colour of artificial teeth; to restore the normal appearance of a person at rest during chewing, speech and other functional states.

The complexity of the high-quality prosthetics of patients with complete loss of teeth is due to the fact that the clinical characteristics of the supporting tissues are quite diverse, constantly changing. That is why an individual approach to the creation of stable dentures is needed.

У посібнику, представленому колективом авторів кафедри ортопедичної стоматології з імплантологією, висвітлені питання функціональної і топографічної анатомії зубо-щелепної системи після повної втрати природних зубів. На підставі аналізу даних цього розділу послідовно розглянуті зміст і послідовність клініко-лабораторних етапів виготовлення повних знімних протезів з урахуванням індивідуальних особливостей будови протезного ложа і використанням розробок співробітників кафедри, спрямованих на покращення фіксації і стабілізації конструкцій.

Посібник призначений для студентів стоматологічних факультетів вищих навчальних закладів, інтернів і лікарів-стоматологів англомовної форми навчання.

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**Дворник Валентин Миколайович,  
Кузь Гельфіра Маліківна,  
Бєліков Олександр Борисович та ін.**

## **Оптимізація клінічних і лабораторних етапів виготовлення повних знімних протезів залежно від стану тканин протезного ложа**

Посібник (англійською мовою)

Посібник призначений для студентів стоматологічних факультетів  
вищих навчальних закладів, інтернів і лікарів-стоматологів  
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Видавець Марченко Т. В.  
м. Львів-53, 79053, Україна, тел. +38 (050) 370-19-57  
e-mail: picha1938@ukr.net

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