A MEDICAL GREEK AND LATIN WORKBOOK

# A MEDICAL GREEK AND LATIN WORKBOOK

# SECOND EDITION

By

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## Foreword

All learning, whether it be in the sciences or humanities, is dependent upon language for the communication of facts and ideas. J. Willard Gibbs, in one of his rare public statements, emphatically stated that "Mathematics is a language!" and indeed it is, as any student familiar with symbolology of the subject is well aware. Any system used to communicate information is a language and though the symbolology of mathematics is a very special case in point, it emphasizes the importance of language as a tool for the transmission and interpretation of information.

Each academic discipline or area of knowledge possesses its own idiosyncrasies of language, if in no other aspect than in the vocabulary or symbols, as the case may be. Inadequate vocabulary is a serious impediment to communication and learning as any teacher knows from experience in the classroom. The development of vocabulary and the ability to utilize a knowledge of words to convey ideas clearly and unambiguously is the *sine qua non* of education in any field.

The language of science is probably best understood and communicated by the student or teacher who has an appreciation of and an interest in the "science of language." Semantics is a prerequisite for comprehension of ideas and it follows that etymology, as a branch of semantics, should not be neglected as a tool for learning.

The development of a scientific vocabulary is generally accomplished in several ways. There is no easy approach. The most frequent method is learning by rote without regard to etymology or context. Quite apart from the time necessary and the limitations imposed by the individual student's capacity for memorization and retention, this method leads to the false assumption that if terms are defined or understood, the principle is likewise understood. Contextual definition eliminates the latter criticism of memory exercises in the definition of scientific words or terms, but, unless the student is familiar with antecedent and subsequent words, terms, or phrases of a given passage, the method falls short of providing the means for clear definition and understanding. Etymological definition, though dependent on memorization of prefixes, suffixes, and roots, offers the distinct advantage of grouping and classifying information. In scanning a scientific or medical dictionary, one is immediately aware of the frequent occurrence of common prefixes, suffixes, and roots which form the basis of countless words in scientific language. And it is an established fact that knowledge of them provides a rational and expedient approach to the development of a scientific vocabulary.

In an age when the study of the classical languages has been deemphasized, a reference source of common prefixes, suffixes, and roots is of definite value to the student of science. The present volume, in addition to providing a source of these word elements, incorporates the very important aspect of practice in their use. *A Medical Greek and Latin Workbook* is both a lexicon and primer and lends itself admirably to use in formalized courses in etymology or disciplines in which new and unfamiliar terms are introduced. The availability of this volume is a distinct contribution to a fuller and richer appreciation of the language of science and scientists.

Washington, D.C.

John G. Adams, Ph.D.

## **Preface to Second Edition**

The use of Greek and Latin for medical terminology has obvious advantages over the use of modern languages. Because both are dead languages, the meanings of words never change. It is, therefore, easy to coin new words to describe new medical concepts. Since the first edition of this work, the number of medical terms has increased dramatically, and almost all of the new words have been created from Greek and Latin. Thus, inasmuch as Greek and Latin do not add words to their vocabularies and the meanings of words do not change, medical terminology can be expanded infinitely by using the ancient languages.

The general pattern of the previous edition has been retained in the preparation of this revision. Exercises have been expanded and new lessons added, as well as English-Greek and English-Latin vocabularies. The revisions provide for well over three hundred words not found in the previous edition.

I especially wish to express my appreciation to my assistant Janice Grey, whose devotion to preparing the manuscript for publication made my task pleasant. In addition to her careful and painstaking editorial effort, she compiled the English-Greek and English-Latin vocabularies, which will prove helpful to those students using this book. My thanks also go to Professor Henry C. Schoming, C.S.Sp., for his valuable suggestions for revisions of the text.

Pittsburgh, Pennsylvania

JAMES A. MCCULLOCH

## Preface to First Edition

This book furnishes information relating to the origin of words and provides exercises designed to cultivate and increase the word power of students pursuing medical and paramedical careers. To reach this goal the plan is to present a variety of disciplinary lessons which will oblige the student to employ basic principles of word origin leading to the expansion of his vocabulary.

Undergraduate college students, and even graduate school candidates, encounter great difficulty in many of their courses of study when they are confronted with a vast array of new words and terms. All too often they find that the terminology of one branch of learning seems to be foreign and inapplicable to another area of study. Hence, a great deal of time is spent laboriously learning definitions and memorizing individual terms with no awareness of their origin or general significance. Since the major flow of medical terminology springs from the fountainheads of Greek and Latin, adequate preparation in the classical languages would help eliminate this problem. But unfortunately, to the detriment of students, classical education is scantily offered or absent from the high school curriculum.

In order to alleviate this condition, and thereby increase the vocabulary of students, this workbook contains Greek and Latin prefixes, words, and suffixes which the student is most likely to encounter during his years of study in both the preprofessional and professional curricula. The material is presented in such a way that no previous knowledge of the Greek or Latin language is prerequisite.

The enlargement of the student's total vocabulary is the ultimate objective of this book. Its immediate objectives, however, are: (1) to increase the student's scientific vocabulary through a better understanding of the component parts of English words derived from Greek and Latin; (2) to enable the student, through a basic knowledge of etymology, to decipher, analyze and deduce the meanings of scientific as well as nonscientific words he meets in his reading and study; and (3) to improve his pronunciation and spelling.

To achieve these objectives an ample number of exercises and review lessons are included in the text to give the student an immediate facility in determining the derivation of words, their scientific meaning, spelling and pronunciation. In the performance of these exercises it is highly desirable that the student have ready access to a Webster's unabridged dictionary, a standard medical dictionary and one or more source-books, such as Jaeger, E. C.: Source-Book of Medical Terms (Springfield, Charles C Thomas, Publisher, 1953). A number of other dictionaries and reference books may be found in the bibliography.

Blank sheets for notes are included opposite each lesson. These note sheets are provided for the student's convenience in recording any questions he may have on any particular word or words he meets while working independently outside of class. They are also to be used for the taking of classroom notes pertinent to the adjacent lesson. The teacher, as well as the student, may advantageously use this welcome space for inserting accessory roots and words in addition to those listed.

The book is divided into two parts. Part One is devoted to words of Greek origin, while Part Two treats words of Latin origin. At the end of each part there is a review lesson for test purposes. These review lessons are intended to serve also as a sample format for additional tests which the instructor, at his discretion, may wish to use.

The vocabularies in both parts are formed from word lists supplied by colleagues in the basic and professional science courses. Categorization of terms into exclusive packets pertaining to anatomy, pathology, bacteriology and so on has been deliberately avoided. Emphasis throughout the manual is placed upon constant repetition of prefixes, stems, combining forms, and suffixes in variant word combinations. From repetition of etymological definitions illustrating basic principles involved in the origin of words flow the comprehension and retention of words and their meanings. Preface to First Edition

The final form of this workbook has been developed, formulated and organized after use in actual classroom sessions. Diligent study of the book will increase the student's vocabulary, and, even more important, his broadened use of this enlarged vocabulary will reward him with better understanding of the ideas and concepts in scientific, cultural and professional courses.

Pittsburgh, Pennsylvania

JAMES A. MCCULLOCH

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## Abbreviations

adjadjective
advadverb
<i>c</i>
comb. form
comp. adjcomparative adjective
conjconjunction
dimdiminutive
ffeminine noun
gen
<i>m</i> masculine noun
nneuter noun
n
nomnominative case
numnumeral
<i>pl</i> plural
<i>pp</i> perfect passive participle
prepperieet passive participie
pronpronoun
singsingular
sup. adjsuperlative adjective
vverb
Note: or between two forms of a word indicates that both forms are found, e.g.,
femur, -oris or -inis.

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A MEDICAL GREEK AND LATIN WORKBOOK

Part One

## **MEDICAL GREEK**

# **Medical Greek**

#### 1. The Greek Alphabet

The Greek alphabet has twenty-four letters:

Character	Name	Transliteration	Sound
α	alpha	а	drama
β	beta	b	bet
γ	gamma	g, ng (hard)	go, gang
δ	delta	d	do
e	epsilon	e (short)	set
ζ	zeta	Z	zone
η	eta	e (long)	they
θ	theta	th	thing
ι	iota	i	sit, machine
κ	kappa	k, c	kill
λ	lambda	1	long
μ	mu	m	may
ν	nu	n	not
ξ	xi	x	lax
0	omicron	o (short)	obey
$\pi$	pi	р	∲ut
ρ	rho	r, rh	row
σ, s	sigma	S	sip
au	tau	t	tip
υ	upsilon	y, u	French $u$
$\phi$	$\mathbf{phi}$	ph	<i>Ph</i> ilip
χ	chi	ch	loch (Scotch)
$\psi$	$\mathbf{psi}$	ps	lips
ω	omega	o (long)	so

### Note

(a)  $\gamma$  becomes *n* before  $\kappa$ ,  $\gamma$ ,  $\chi$ , or  $\xi$  when transliterated:  $\phi_{\alpha\rho\nu\gamma\xi} = pharynx$ .

(b) There are two signs for sigma. The form s is used only as a final letter, the form  $\sigma$  everywhere else:  $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota s$ .

(c)  $\rho$  at the beginning of a word becomes *rh*:  $\dot{\rho}i_{s} =$  rhis. When an initial  $\rho$  is preceded by a prefix or an element which ends in a vowel, the letter is usually doubled, but remains single after a diphthong:  $\delta\iota_{\dot{\alpha}} - \rho\rho_{0}\alpha =$  diarrhea;  $\epsilon\dot{\nu} - \rho\nu\theta_{\mu}i\alpha =$  eurythmy.