

## GALEN: WORKS ON HUMAN NATURE

## Volume I

*Mixtures (De Temperamentis)*

*Mixtures* is of central importance for Galen's views on the human body. It presents his influential typology of the human organism according to nine mixtures (or 'temperaments') of hot, cold, dry and wet. It also develops Galen's ideal of the 'well-tempered' person, whose perfect balance ensures excellent performance both physically and psychologically. *Mixtures* teaches the aspiring doctor how to assess the patient's mixture by training one's sense of touch and by a sophisticated use of diagnostic indicators. It presents a therapeutic regime based on the interaction between foods, drinks, drugs and the body's mixture. *Mixtures* is a work of natural philosophy as well as medicine. It acknowledges Aristotle's profound influence while engaging with Hippocratic ideas on health and nutrition, and with Stoic, Pneumatist and Peripatetic physics. It appears here in a new translation, with generous annotation, introduction and glossaries elucidating the argument and setting the work in its intellectual context.

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P. N. Singer, Philip J. van der Eijk, Assisted by Piero Tassinari

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## CAMBRIDGE GALEN TRANSLATIONS

General editor: Philip J. van der Eijk

Galen's works represent one of the most impressive monuments of Classical medicine. They dominated medical theory, teaching and practice in the medieval European and Islamic worlds and remained a key source of medical wisdom down to the twentieth century. But his works also concern themselves with all the philosophical issues involved in understanding the human body, soul and health, and in diagnosing and treating illness, and Plato and Aristotle were key influences on his thought. Furthermore, as the court physician of several Roman emperors, Galen is an important source of information about social and cultural life in the early Empire.

*Cambridge Galen Translations* provides a co-ordinated series of scholarly English translations of works of Galen in a unified format with substantial introduction and annotation, glossaries and indices. Many of the translations have been newly commissioned, while others are revised versions of good translations which have for some time been out of print. Editors and translators are drawn from the world's leading scholars of Galen and of ancient medicine. The series is intended both to contribute to international Galenic scholarship and to make Galen's work more easily accessible for a wider, non-specialist readership including historians and philosophers of science and readers with a medical background.

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# GALEN: WORKS ON HUMAN NATURE

Volume I  
*Mixtures (De Temperamentis)*

TRANSLATED WITH INTRODUCTION  
AND NOTES BY

P. N. SINGER AND PHILIP J. VAN DER EIJK

WITH THE ASSISTANCE OF  
PIERO TASSINARI



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## *Series editor's preface*

The works of Galen of Pergamum (129–c. 215 CE), ‘the Prince of Physicians’, constitute one of the most impressive monuments of classical medicine. They comprise all areas of medical theory and practice, ranging from anatomy, physiology, pathology, diagnosis and prognosis, dietetics and regimen in health, therapeutics, pharmacology and surgery, gynaecology, embryology and theory of reproduction to psychiatry and ethics. In addition, they cover philosophical and methodological aspects fundamental to the acquisition, systematization and communication of medical knowledge, such as logic, terminology, epistemology, philosophy of nature and theory of causation. And however voluminous and wide-ranging, they are bound together by an intrinsic and coherent (if eclectic) comprehensive theory of the human body, the human psyche, their place within the natural world, the nature of medical knowledge and the technical and ethical components of medical expertise.

Galen’s works were of enormous influence on the subsequent history of medicine and science, both in the West and in the East (and in Arabic medicine), and Galen’s authority remained powerful until well into the seventeenth century and, in some respects, beyond that. Yet, more recently, Galen’s works have also found strong resonance beyond the domain of medical history. Galen was, after all, not only a brilliant doctor and prolific writer but also the court physician of several Roman emperors, a keen public debater and dissector and an active participant in social and cultural life, first in Pergamum and subsequently in Rome. It is therefore not surprising that Galen’s work commands a rapidly growing interest from classicists, ancient historians and students of Greek and Roman literature, philosophy and society; and his writings are being exploited as a rich source for the social, cultural and intellectual history of the early Imperial period.

Yet Galen’s works are difficult to access. Many are available only in old editions that do not meet current standards of classical scholarship, such as the nineteenth century edition by Carl Gottlob Kühn (Greek text with



Latin translation), which is still the most recent edition aspiring to completeness but which is universally regarded as unsatisfactory – and, in spite of its title *Opera omnia*, it lacks a number of Galenic works preserved in Latin or Arabic adaptation or deemed lost but later discovered (such as the recently found *Avoiding Distress*). For only a handful of Galenic texts have the basic modern philological requirements of a critical edition with translation and commentary been fulfilled; and although Galenic scholarship of the last decades has seen significant improvement, it is still the case that large parts of Galen's work are not available in English translation. While interest in Galen thus seems greater than ever before, the language skills required to read him in the original are becoming more and more scarce.

The Cambridge Galen Translations series aims to address this need. The purpose of the series is to provide a co-ordinated series of scholarly English translations of works of Galen in a uniform format consisting of introduction, translation, explicative notes, glossaries and indices. The series has been planned in close co-ordination with other ongoing Galen projects, such as the *Corpus Medicorum Graecorum* (CMG) at the Berlin-Brandenburg Academy of Sciences,<sup>1</sup> the Galen volumes in the Budé series published by Les Belles Lettres (Paris),<sup>2</sup> and those in the Loeb Classical Library published by Harvard University Press,<sup>3</sup> in order to minimize duplication and, where possible, to promote international collaboration. Indeed, the translations in the present volume and in those to follow are based on critical editions that have been published, or are being prepared for publication, in the CMG, or Belles Lettres, or in some cases by other publishers (such as, for the present volume, the Teubner series).

Yet the novelty of the project lies not only in its provision of English translations. It also aims to make a new contribution to international

<sup>1</sup> A list of works published in the CMG (which was founded in 1907) and of works in preparation can be found on the CMG website at <http://cmg.bbaw.de/Startseite.html>

<sup>2</sup> See J. Jouanna and V. Boudon, 'Présentation du projet d'édition de Galien dans la Collection des Universités de France', *Bulletin de l'Association Guillaume Budé* 1993, pp. 101–135. So far, eight volumes have been published: *Ars medica/Protrepticus* (Boudon, 2000), *De ossibus ad tirones/De dissectione musculorum* (Garofalo and Debru, 2005), *De libris propriis/De ordine librorum suorum/Quod optimus medicus* (Boudon-Millot, 2007), *De dissectione nervorum/De dissectione venarum et arteriarum* (Garofalo and Debru, 2008), *Introductio seu medicus* (Petit, 2009), *De indolentia* (Boudon-Millot, Jouanna and Pietrobelli, 2010), *De alimentorum facultatibus* (Wilkins, 2013) and *De theriaca ad Pisonem* (Boudon-Millot, 2016).

<sup>3</sup> So far, eight Galenic works have been published: *De naturalibus facultatibus* (Brock, 1916), *De methodo medendi* (Johnston and Horsley, 3 vols., 2011), *De constitutione artis medicativae, De methodo medendi ad Glauconem, Ars medica* (Johnston, 2016), *De sanitate tuenda, De parvae pilae exercitio* and *Thrasylbulus* (Johnston, 2018).

Galenic scholarship, especially through substantial introductions, notes and glossaries, which are intended to provide resources for the study of Galenic language and thought, and indeed for Greek medical terminology at large. In this regard, the format of the series is closely modelled on Richard Sorabji's *Ancient Commentators on Aristotle* (now published by Bloomsbury), from which it has drawn most of its inspiration, and on the CUP series of translations of Proclus' *Commentary on Plato's Timaeus*. Moreover, the project is meant to open up Galen's work to other disciplines beyond Classics and History of Medicine, such as the History of Philosophy, the History and Philosophy of Science, Cultural History, Linguistics and Literary Studies, and to readers with a medical background.

Galen's work is vast, and the series will therefore, in the first instance, give priority to works that have not yet been translated into English (or indeed in any modern language), or to works for which an English translation exists which, however, is out of print,<sup>4</sup> or in need of revision or replacement in the light of recent developments in Galenic scholarship. A further consideration in the planning of the series has been the interest of the texts to be included and their relevance to some of the major issues that Galen's work raises.

Thus the text translated in the present volume, *Mixtures*, is of central importance for Galen's views on the human body, on methods of feeling and reading the body and on understanding and managing the body's interaction with food, drinks, drugs and the environment. It is also an illuminating testimony to Galen's Aristotelianism. Yet it has never received a detailed analysis, let alone a commentary. Initially, our plan was to publish *Mixtures* together with Galen's *Commentary on Hippocrates' Nature of the Human Being* and with his *Commentary on the Medical Statements in Plato's Timaeus*. For practical reasons, we have now decided to publish *Mixtures* first in a separate volume; the other two works will follow in a second volume, which will also include a translation of Galen's *Compendium of Plato's Timaeus*, thus combining three 'meta-texts' devoted to Galen's two chief authorities in medicine and philosophy, Hippocrates and Plato.

Further volumes to follow in the series will testify to Galen's views on the nature and methodology of medical prognosis and prediction (*Commentary on Hippocrates' Prognostic*); on the preservation of health and the promotion of a healthy style of living (*Matters of Health*); on the structure and

<sup>4</sup> E.g. P. N. Singer's *Galen: Selected Works*, Oxford 1997; translations of a number of Galenic texts included there are revised, with extensive new introductions and notes, for the present series.

purposive arrangement of the human body (*The Function of the Parts of the Human Body*); and on the theory and therapeutic practice of simple medicines (*Simple Medicines* I–V). All these works also provide insight in the ways in which Galen arrived at his views and tried to justify them, how he accommodated and appropriated the various intellectual traditions, both medical and philosophical, to which he was indebted, and how successful he was in his attempts to create a synthesis out of these often conflicting tendencies. Furthermore, they will give a lively picture of the social and cultural environment in which Galen lived and how it impinged on the formation and development of his ideas; and finally, they will be illuminating for Galen's activities as a writer and communicator, for the ways in which he presented his ideas, the consistency of his terminology, the audiences for whom he wrote, the genres he used to disseminate his ideas and the rhetorical strategies he employed to persuade his readers and to distinguish himself from rival doctors with whom he was in constant competition.

It is a pleasure to acknowledge the generous financial support of the Wellcome Trust through a History of Medicine Programme Grant, which has allowed the appointment, at Newcastle University, of three designated academic staff for the first six years of the project. We are very grateful to Newcastle University for its institutional support during these years. We gladly acknowledge the support of the Alexander von Humboldt Foundation, the Deutsche Forschungsgemeinschaft and the Humboldt University, which have ensured the continuation of the project, and provided additional funding, after my move to Berlin. For the practical organization of the project, we would like to thank Cambridge University Press, and in particular its Classics Editor Michael Sharp, who have supported the idea right from the start and have been a patient source of help throughout the production of the volumes in the series .

Philip J. van der Eijk  
*Berlin, November 2017*

## *Preface and acknowledgements*

The translation printed here is essentially the work of P. N. Singer, the introduction of Philip J. van der Eijk, while the notes represent input from both of us. But we have revised each other's work and the result is throughout a joint production. Work on the translation started as a revision of Singer's version in the Oxford World's Classics volume *Galen: Selected Works* (1997), but in the process, a significant number of major and minor changes were made so that the result is in essence a new translation.

The translation is based on the critical edition of the Greek text by G. Helmreich (1904, revised and updated by S. Besslich, 1969);<sup>1</sup> any departures from this edition are listed below on p. 185 and discussed in the notes. We are aware that Helmreich used only a selection of the manuscripts and that his critical apparatus is not always as accurate or clear as would be desirable. We have taken account of the *addenda et corrigenda* to Helmreich's edition provided by R. Durling in his edition (1976) of the medieval Latin translation by Burgundio of Pisa, which we have also consulted. We have further taken account of the Arabic translation by Ḥunayn ibn Ishāq, which was kindly made available to us by Ivan Garofalo, and the 1521 Latin translation by Thomas Linacre.

We have benefited greatly from the assistance of Piero Tassinari, who created the Greek–English Index as well as the List of Galen's works, and who provided numerous valuable comments and suggestions on the translation and the notes. His Italian translation of *Mixtures* and *Elements according to Hippocrates* (1997) was of great help to us in preparing our English version. Very sadly, a few months before this manuscript was sent to the Press, Piero died after a period of illness. We acknowledge with

<sup>1</sup> Accessible online via the Corpus Medicorum Graecorum website of the Berlin Brandenburg Academy of Sciences at [http://cmg.bbaw.de/epubl/online/wa\\_galen\\_temp.php](http://cmg.bbaw.de/epubl/online/wa_galen_temp.php)

profound gratitude his contribution to the Cambridge Galen Translations, and to scholarship on ancient medicine at large.

We are grateful for the comments and feedback we received on drafts of various parts of the translation from the participants of the weekly meetings of the Galen reading group held at the Institut für Klassische Philologie of the Humboldt Universität zu Berlin as part of the Alexander von Humboldt project ‘Medicine of the Mind, Philosophy of the Body. Discourses of Health and Well Being in the Ancient World’, and at two designated workshops held in Berlin in 2010 and 2011. Preliminary results of our work were presented at conferences and seminars at the Institute of Classical Studies in London, the Philosophy Faculty at the University of Oxford, the University of Exeter, the Universität Trier, the Université de Strasbourg, the Universität Bamberg, the University of Oslo, the University of Geneva, the University of Palermo, the Université de Nantes, Corpus Christi College Oxford, the Max Planck Institute for the History of Science, Princeton University, the Istituto Orientale Napoli, the Ludwig-Maximilians-Universität München, the Universität Erlangen, Sechenow First Moscow State University, the University of Utrecht, the Universität Mainz and the University of Tokyo, and we are grateful to the audiences present on these occasions for their comments, suggestions and questions. In particular, we would like to thank Vincent Barras, Sean Coughlin, Armelle Debru, Klaus-Dietrich Fischer, Ivan Garofalo, Christopher Gill, Jim Hankinson, Matyáš Havrda, David E. H. Jones, Inna Kupreeva, Orly Lewis, Geoffrey Lloyd, Vito Lorusso, Daniela Manetti, Matteo Martelli, Claudia Mirrione, Vivian Nutton, Lorenzo Perilli, Jackie Pigeaud, André-Louis Rey, Amneris Roselli, Julius Rocca, Christine Salazar, Mark Schiefsky, Conrad Schiffner, Heinrich von Staden, John Wilkins and Roland Wittwer.

Selected quotations from the translation and parts of the Introduction were published earlier in van der Eijk (2013a), (2014a) and (2015), and we are grateful to De Gruyter and to the Institute of Classical Studies for permission to reuse this material (with slight alterations in the case of the translation, and in abbreviated form in the case of the Introduction).

For technical support in the final preparation of the copy, proofs and indexes, we are grateful to Evangelia Nikoloudakis, Dorothea Keller and Martin Müller.

We acknowledge the financial support of the Wellcome Trust, the Alexander von Humboldt Foundation and the Deutsche Forschungsgemeinschaft, and the institutional support of Newcastle

*Preface and acknowledgements*

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University, the Humboldt Universität zu Berlin and Birkbeck College,  
University of London.

Finally, we would like to thank Iveta Adams for her meticulous, patient  
and thoughtful copy-editing.

P. N. Singer and Philip J. van der Eijk  
*London and Berlin, November 2017*

## *Note on citations and abbreviations*

Titles of works of ancient authors, if given in full in a discursive context, are usually translated. For precise references in footnotes, the standard abbreviations of the *Greek–English Lexicon* of Liddell, Scott and Jones (LSJ) are used, with a few exceptions for more familiar authors or works. However, works by Galen are cited in the form given in the List of titles and abbreviations of Galen’s works at the end of the book.

All references to Galenic works are by chapter number, or, where applicable, book and chapter number, followed by page and line number (separated by a comma) of the most recent critical edition, the editor’s name (sometimes in abbreviated form), and then in parentheses the volume and page number of the older edition of Kühn (K.), where this is available. The full list of Galenic titles in abbreviated form, along with full title in Latin and English, and the abbreviations for editors’ names, is to be found in the List of titles and abbreviations of Galen’s works. Typical references would thus be: *Hipp. Elem.* 2, 64,1 DL (I.420 K.); *Nat. Fac.* I.2, 103,18–105,9 H. (II.4–6 K.) Similarly, all quotations from the works attributed to Hippocrates are identified by the Littré (L.) volume and page numbers as well as those of the most recent critical edition.

Throughout the actual text translated in this volume, references to the Kühn page numbers (K.) are printed in the left-hand margin. References to page and line numbers of Helmreich’s edition (H.), which is used as the basis for the translation, are printed in the right-hand margin. The traditional division of the text into chapters has also been retained. The titles of the chapters are provided by the translators. The following is a list of the most common abbreviations used throughout the volume (for individual publications, full titles are given in the Bibliography):

*Note on citations and abbreviations*

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<i>ANRW</i>	<i>Aufstieg und Niedergang der römischen Welt</i> (= Haase and Temporini (1972–))
<i>CMG</i>	<i>Corpus Medicorum Graecorum</i>
DK	Diels and Kranz (1952, repr. 1961)
FSHG	Fortenbaugh <i>et al.</i> (1992)
K.	Kühn (1821–1833)
KRS	Kirk, Raven and Schofield (1983)
L.	Littré (1839–1861)
LS	Long and Sedley (1987)
LSJ	Liddell, Scott and Jones (1996)
<i>SVF</i>	von Arnim (1903–1905)