

**PUBLISHED BY
THE MEDICAL RESEARCH SOCIETY AND THE BIOCHEMICAL SOCIETY**

**Printed in Great Britain by Spottiswoode Ballantyne Ltd.
Colchester and London**

CLINICAL SCIENCE

Guidance for Authors

CONTENTS

	<i>page</i>
1. Policy of the Journal	
1.1. Scope	i
1.2. The Editorial Board	i
1.3. The editorial process	i
1.4. Ethics of investigations on human subjects	ii
1.5. Originality of papers	ii
2. Submission of Manuscripts: General Information and Format	
2.1. General	ii
2.2. Full papers	ii
2.3. Short Communications	iii
2.4. Correspondence	iii
2.5. Arrangements for large amounts of information	iii
2.6. Proof corrections	iii
2.7. Offprints.	iii
2.8. Availability on MEDLINE	iii
3. Miscellaneous Notes	
3.1. Abbreviations	iv
3.2. Anatomical nomenclature	iv
3.3. Animals, plants and micro-organisms	iv
3.4. Buffers and salts	iv
3.5. Doses	iv
3.6. Enzymes	iv
3.7. Evaluation of measurement procedures	iv
3.8. Figures and Tables	iv
3.9. Footnotes	v
3.10. Isotope measurements	v
3.11. Radionuclide applications in man	v
3.12. Methods	v
3.13. Nomenclature of disease	v
3.14. Powers in Tables and Figures	v
3.15. References	v
3.16. Solutions	vi
3.17. Spectrophotometric data	vi
3.18. Spelling	vi
3.19. Statistics	vi
3.20. Trade names	vi
3.21. Computer modelling	vi
4. Units: The SI System	vii
5. Abbreviations, Conventions etc.	vii

1. POLICY OF THE JOURNAL

1.1. *Scope*

Clinical Science publishes papers in the field of clinical investigation, provided they are of a suitable standard and contribute to the advancement of knowledge in this field. The term 'clinical investigation' is used in its broad sense to include studies in animals and the whole range of biochemical, physiological, immunological and other approaches that may have relevance to disease in man. Studies which are confined to normal subjects, or animals, or are purely methodological in nature may be acceptable. The material presented should permit conclusions to be drawn and should not be only of a preliminary nature. The journal publishes four types of manuscript, namely invited Editorial Reviews, Full Papers, Short Communications and Correspondence. In addition, *Clinical Science* publishes abstracts of the proceedings of the Medical Research Society and also that Society's Annual Guest Lecture.

1.2. *The Editorial Board*

The Board comprises Editors for the Medical Research Society and the Biochemical Society and a Chairman and Deputy Chairman who are drawn alternately from the two Societies. Members of the Board retire after a maximum of 5 years; the Chairman serves in his capacity for 2 years. The membership of the Board is designed to cover as wide a range of interests as possible.

The main function of the Board is to decide on the acceptability of submitted papers, but it also deals with general matters of editorial policy. Financial policy is dealt with separately by the Committee of Management.

1.3. *The editorial process*

A submitted paper is first read by the Chairman of the Editorial Board who then sends it to an Editor. The latter considers the paper in detail and sends it to one or more referees (who remain anonymous) from outside the membership of the Board. The Editor returns it with his recommendation to the Chairman who then writes formally to

the authors. The ultimate responsibility of acceptance for publication lies with the Chairman. If the Chairman is for any reason unavailable, the Deputy Chairman assumes this function.

1.4. *Ethics of investigations on human subjects*

Authors must state in the text of their paper the manner in which they have complied, where necessary, with the recommendations on human investigations published in the Medical Research Council report of 1962/63 [*British Medical Journal* (1964) ii, 178–180]. Consent must be obtained from each patient or subject after full explanation of the purpose, nature and risks of all procedures used and the fact that such consent has been given should be recorded in the paper. Papers should also state that the Ethical Committee of the Institution in which the work was performed has given approval to the protocol. The Editorial Board will not accept papers the ethical aspects of which are, in the Board's opinion, open to doubt.

1.5. *Originality of papers*

Submission of a paper to the Editorial Board is taken to imply that it reports unpublished work, that it is not under consideration for publication elsewhere and that, if accepted for publication by *Clinical Science*, it will not be published elsewhere in the same form, either in English or in any other language, without the consent of the Editorial Board. This does not usually apply to previous publication of oral communications in brief abstract form. In such cases authors should enclose copies of the abstracts. When a paper has been accepted for publication the author, or in the case of multiple authorship the author with whom correspondence has taken place, will be asked to sign a statement vesting the copyright in the Editorial Board. Requests for consent for reproduction of material published in *Clinical Science* should be addressed to the Chairman of the Editorial Board.

2. SUBMISSION OF MANUSCRIPTS: GENERAL INFORMATION AND FORMAT

2.1. *General*

Papers submitted for publication should be sent to the Chairman of the Editorial Board (Dr D. J. Galton, Department of Medicine, St Bartholomew's Hospital, West Smithfield, London EC1M 6BQ).

The submission should contain three copies (of which two may be photocopies) of the typescript,

Tables, Figures etc. The authors should retain one copy of the paper. The Editorial Board does not accept responsibility for damage or loss of papers submitted, although great care is taken to ensure safety and confidentiality of the typescript during the editorial process. In the case of multiple authorship, the covering letter should indicate that the approval of all co-authors has been obtained.

Papers should be presented so that they are intelligible to the non-specialist reader of the journal. This is particularly important in highly specialized fields and a very brief résumé of the current state of knowledge is usually helpful. Certain types of material, e.g. mathematical formulations requiring more than trivial derivations, should be given in a separate Appendix.

Where the reader is referred to previous works by the same author(s) for important details relevant to the present work, it often speeds up assessment if reprints are enclosed with the typescript. This is of particular importance in relation to methodology.

The dates of receipt and acceptance of the paper will be published. If the paper has to be returned to the authors for revision and is not resubmitted within 1 month, the date of receipt will be revised accordingly. For Short Communications the published date will always be that of receipt of the final version. It is emphasized that badly presented or unduly long papers will be returned for revision and delays in publication will be inevitable. Similar delays will be incurred if the typescript is not prepared strictly in accordance with the instructions detailed below.

2.2. *Full papers*

The authors should refer to a current issue of *Clinical Science* to make themselves familiar with the general layout. Concise presentation is very important for rising costs are a severe constraint on space. **The length of manuscript and the number of Figures and Tables must be kept to a minimum.** Extensive Tables of data can be deposited with the Royal Society of Medicine (see 2.5). *Guidance for Authors* is usually published in the January issue of the journal, and revised periodically.

Typescripts should be, in general, arranged as follows:

(a) *Title page.* Title: this should be as informative as possible, since titles of papers are being increasingly used in indexing and coding for information storage and retrieval. The title should indicate the species in which the observations reported have been made. The numbering of parts in a series of papers is not permitted.

List of authors' names (degrees and appointments are not required).

Laboratory or Institute of origin.

Key words: for indexing the subject of the paper; they should, if possible, be selected from the current issues of 'Medical Subject Headings' (MeSH), produced by the *Index Medicus*.

Short title: for use as a running heading in the printed text; it should not exceed forty-five characters and spaces.

Author for correspondence: the name and address of the author to whom queries and requests for reprints should be sent.

(b) **Summary.** This should be a brief statement arranged in **numbered paragraphs** of what was done, what was found and what was concluded and should rarely exceed 250 words. Contributors from non-English speaking countries are invited to include a translation of the summary in their own language. Abbreviations should be avoided as far as possible and must be defined. Statistical and methodological details including exact doses should also be avoided unless they are essential to the understanding of the summary.

(c) **Introduction.** This should contain a clear statement of the reason for doing the work, but should not include either the findings or the conclusions.

(d) **Methods.** The aim should be to give sufficient information in the text or by reference to permit the work to be repeated without the need to communicate with the author.

(e) **Results.** This section should not include material appropriate to the Discussion section.

(f) **Discussion.** This should not contain results and should be pertinent to the data presented.

(g) **Acknowledgments.** These should be as brief as possible.

(h) **References.** See p. v for the correct format.

(i) **Figures and Tables.** See p. iv.

2.3. Short Communications

The Short Communication should describe completed work, and should not be merely a preliminary communication. The format of Short Communications should be similar to that of Full Papers, but should not exceed 1200 words of text. **One Figure or Table** is allowed, but if neither is included the text may be expanded to 1400 words. The passage of Short Communications through the editorial process can frequently be expedited and contributors are encouraged to take advantage of these facilities when rapid publication is of importance and the material can be presented concisely.

The paper should appear in print within 3 months of acceptance. When submitting Short Communications, authors should make it quite clear that the work is intended to be treated as a Short Communication.

2.4. Correspondence

Letters containing critical assessments of material published in *Clinical Science*, including Editorial Reviews, will be considered for the Correspondence section of the journal. Such letters should be sent to the Chairman of the Editorial Board within 6 months of the appearance of the article concerned. They will be sent to the authors for comment and both the letter and any reply by the author will be published together. Further correspondence arising therefrom will also be considered for publication. Consideration will also be given to publication of letters on ethical matters.

2.5. Arrangements for large amounts of information

It is impracticable to publish very large sets of individual values or very large numbers of diagrams, and under these circumstances a summary of the information only should be included in the paper. The information from which the summary was derived should be submitted with the typescript and, if the latter is accepted, the Editors may ask for a copy of the full information and diagrams to be deposited with the Librarian, the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE, who will issue copies on request. Experience has shown that such requests are frequently received.

2.6. Proof corrections

These are expensive and corrections of other than printers' errors may have to be charged to the author.

2.7. Offprints

Fifty offprints are supplied free and additional copies may be obtained at terms, based upon the cost of production, that will be given with the proofs. All offprints should be ordered when the proofs are returned.

2.8. Availability on MEDLINE

Summaries of papers in *Clinical Science* are available on-line on teleprinters participating in the MEDLINE system run by the National Library of Medicine, National Institutes of Health, Bethesda, Maryland, U.S.A.

3. MISCELLANEOUS NOTES

3.1. Abbreviations

Abbreviations should be avoided; if used they must be defined at the first mention; new abbreviations should be coined only for unwieldy names which occur frequently. Abbreviations should not appear in the title nor, if possible, in the Summary. A list of accepted abbreviations is on p. vi. Numbers, not initials, should be used for patients and subjects.

3.2. Anatomical nomenclature

This should follow the recommendations of the International Anatomical Nomenclature Committee (1966) *Nomina Anatomica*, 3rd edn, Excerpta Medica Foundation, Amsterdam.

3.3. Animals, plants and micro-organisms

The full binomial specific names should be given at first mention for all experimental animals other than common laboratory animals. The strain and, if possible, the source of laboratory animals should be stated. Thereafter in the text, single letter abbreviations may be given for the genus; if two genera with the same initial letter are studied, abbreviations such as *Staph.* and *Strep.* should be used.

3.4. Buffers and salts

The acidic and basic components should be given, together with the pH. Alternatively, a reference to the composition of the buffer should be given. Further details are provided in the *Biochemical Journal* (1978) **169**, 9.

When describing solutions containing organic anions and their parent acids, the salt designator (e.g. lactate, urate, oxalate) should be used in preference to the name of the acid (lactic, uric, oxalic) unless it is certain that virtually all of the acid is in the undissociated form.

The composition of incubation media should be described, or a reference to the composition should be given.

3.5. Doses

Doses of drugs should be expressed in mass terms, e.g. milligrams (mg) or grams (g), and also (in parentheses) in molar terms, e.g. mmol, mol, where this appears to be relevant. Molecular weights of many drugs may be found in *The Merck Index*, 8th edn, Merck and Co. Inc., N.J., U.S.A.

3.6. Enzymes

Nomenclature should follow that given in *Enzyme Nomenclature* (1978), Academic Press,

London and New York, and Enzyme Commission (EC) number should be quoted at the first mention. Where an enzyme has a commonly used informal name, this may be employed after the first formal identification. A unit of enzyme activity should preferably be expressed as that amount of material which will catalyse transformation of 1 μ mol of the substrate/min under defined conditions, including temperature and pH. Alternatively, or when the natural substrate has not been fully defined, activity should be expressed in terms of units of activity relative to that of a recognized reference preparation, assayed under identical conditions. Activities of enzymes should normally be expressed as units/ml or units/mg of protein.

3.7. Evaluation of measurement procedures

When a new measuring procedure has been used, or when an established procedure has been applied in a novel fashion, an estimate of the precision of the procedure should be given. This should, as far as possible, indicate what sources of variation have been included in this estimate, e.g. variation of immediate replication, variation within different times of day, or from day to day etc.

If the precision of measurement varies in proportion to the magnitude of the values obtained, it can best be expressed as the coefficient of variation; otherwise it should be expressed by an estimate of the (constant) standard error of a single observation, or by estimates at several points within the range of observed values.

When recovery experiments are described the approximate ratio of the amount added to the amount already present and the stage of the procedure at which the addition was made should be stated.

3.8. Figures and Tables

These are expensive to print and their number should be kept to a minimum. Their appropriate position in the paper should be indicated in the margin of the text. References to Figures and Tables should be in Arabic numerals, e.g. Fig. 3, and they should be numbered in order of appearance. In general, the same data should not be presented in both a Figure and a Table.

Figures, with captions attached, should be supplied as original drawings or matt photographs together with photocopies. All Figures should have their number and the authors' names written in pencil on the back; the top of the Figure should be indicated with a pencilled arrow. A horizontal or square layout is preferred to a vertical one. Acceptable symbols for experimental points are ●,

▲, ■, ○, △, □. The symbols × or + must be avoided. The same symbols must not be used for two curves where the points might be confused. For scatter diagrams, solid symbols are preferred. When a particular variable appears in more than one Figure, the same symbol should be used for it throughout, if possible.

Curves should not be drawn beyond the experimental points, nor should axes extend appreciably beyond the data. Only essential information that cannot readily be included in the legend should be written within the Figure.

Figures for half-tone reproduction should be submitted as glossy prints. They are particularly expensive to print and their use should be avoided as far as possible.

Tables should be typed separately from the text. They should have an underlined title followed by any legend.

Captions for the Figures, and titles and legends for the Tables, should make them readily understandable without reference to the text. Adequate statistical information, including that on regression lines, should be included in Figure captions where appropriate.

3.9. Footnotes

These should be avoided as far as possible but where they are used in Tables they should be identified by the symbols • † ‡ § || ¶, in that order.

3.10. Isotope measurements

The information given should include (a) conditions of radioactivity counting, e.g. infinitely thick, infinitely thin; (b) the nature of the phosphor used in liquid-scintillation counting; (c) details of corrections made to the observed count rate, e.g. for 'quenching' or 'cross-over'; (d) standard deviation of the results or a statement of the minimum total counts above background collected and the background value.

In general the specific radioactivity of the starting materials should be given, preferably in terms of radioactivity per unit weight or, for stable isotopes, as atoms % excess.

Pending the general introduction of SI units radioactivity should continue to be expressed in terms of the curie (Ci) followed by the corresponding figure in terms of the becquerel (Bq: disintegrations/s), in parentheses, and suitably rounded.

3.11. Radionuclide applications in man

If new or modified radionuclide applications in man are described, an estimate of the maximal

possible radiation dose to the body and critical organs should be given.

For the time being this can continue to be expressed in rems, but with the corresponding figure in sieverts (Sv) given in parentheses after it.

3.12. Methods

In describing certain techniques, namely centrifugation (when the conditions are critical), chromatography and electrophoresis, authors should follow the recommendations published by the Biochemical Society (currently, *Biochemical Journal* (1978) 169, 1-21).

3.13. Nomenclature of disease

This should follow the *International Classification of Disease* (8th revision, World Health Organization, Geneva, 1969) as far as possible.

3.14. Powers in Tables and Figures

Care is needed where powers are used in Table headings and in Figures to avoid numbers with an inconvenient number of digits. For example: (i) an entry '2' under the heading 10^3k means that the value of k is 0.002; an entry '2' under the heading $10^{-3}k$ means that the value of k is 2000. (ii) A concentration 0.00015 mol/l may be expressed as 0.15 under the heading 'concn. (mmol/l)' or as 150 under the heading 'concn. ($\mu\text{mol/l}$)' or as 15 under the heading ' $10^3 \times \text{concn. (mol/l)}$ ', but not as 15 under the heading 'concn. (mol/l $\times 10^{-3}$)'.

3.15. References

These should be in alphabetical order of first authors. The full title of the paper, the journal and the first and last page numbers should be given, e.g.

CLARK, T.J.H., FREEDMAN, S., CAMPBELL, E.J.M. & WINN B.R. (1969) The ventilatory capacity of patients with chronic airways obstruction. *Clinical Science*, 36, 307-316.

When the quotation is from a book, the following format should be used, giving the relevant page or chapter number:

MOLLISON, P.L. (1967) *Blood Transfusion in Clinical Medicine*, 4th edn, p. 50. Blackwell Scientific Publications, Oxford.

REID, L. (1968) In: *The Lung*, p. 87. Ed. Liebow, A.A. & Smith, D.E. Williams and Wilkins, Baltimore.

References in the text should follow the style: Clark, Freedman, Campbell & Winn (1969) on the first quotation and, if there are more than two authors, 'Clark *et al.* (1969)' or '(Clark *et al.*, 1969)' in subsequent quotations.

References to 'personal communications' and 'unpublished work' should appear in the text only and not in the list of references. The name and

initials of the source of information should be given. When the reference is to material that has been accepted for publication but has not yet been published, this should be indicated in the list of references by 'In press' together with the name of the relevant journal and, if possible, the expected date of publication. If such a citation is of major relevance to the manuscript submitted for publication authors are advised that the editorial process might be expedited by the inclusion of a copy of such work. In the case of quotations from personal communications the authors should state in the covering letter that permission for quotation has been obtained.

3.16. Solutions

Concentration of solutions should be described where possible in molar terms (mol/l and subunits thereof), stating the molecular particle weight if necessary. Values should not be expressed in terms of normality or equivalents. Mass concentration should be expressed as g/l or subunits thereof, for example mg/l or $\mu\text{g/l}$. For solutions of salts, molar concentration is always preferred to avoid ambiguity as to whether anhydrous or hydrated compounds are used. Concentrations of aqueous solutions should be given as mol/l or mol/kg (g/l or g/kg if not expressed in molar terms) rather than % (w/v) or % (w/w). It should always be made clear whether concentrations of components in a reaction mixture are final concentrations or the concentrations in solutions added.

3.17. Spectrophotometric data

The term 'absorbance' [$\log(I_0/I)$] should be used rather than 'optical density' or 'extinction'. The solvent, if other than water, should be specified. Symbols used are: A , absorbance; a , specific absorption coefficient ($\text{litre g}^{-1} \text{cm}^{-1}$) (alternatively use $A_{1\text{cm}}^{1\%}$); ϵ , molar absorption coefficient (the absorbance of a molar solution in a 1 cm light-path) ($\text{litre mol}^{-1} \text{cm}^{-1}$, not $\text{cm}^2 \text{mol}^{-1}$).

3.18. Spelling

Clinical Science uses as standards for spelling the *Concise* or *Shorter Oxford Dictionary of Current English* (Clarendon Press, Oxford) and *Butterworth's Medical Dictionary* (Butterworths, London).

3.19. Statistics

Papers are frequently returned for revision (and their publication consequently delayed) because the authors use inappropriate statistical methods. Two

common errors are the use of means, standard deviations and standard errors in the description and interpretation of grossly non-normally distributed data and the application of t -tests for the significance of difference between means in similar circumstances, or when the variances of the two groups are non-homogeneous. In some circumstances it may be more appropriate to provide a 'scattergram' than a statistical summary.

A reference should be given for all methods used to assess the probability of a result being due to chance. The format for expressing mean values and standard deviations or standard errors of the mean is, for example: mean cardiac output 10.4 l/min (SD 1.2; $n = 11$). Degrees of freedom should be indicated where appropriate. Levels of significance are expressed in the form $P < 0.01$.

3.20. Trade names

The name and address of the supplier of special apparatus and of biochemicals should be given. In the case of drugs, approved names should always be given with trade names and manufacturers in parentheses.

3.21. Computer modelling

Papers concerned primarily with computer modelling techniques are acceptable provided that use of such techniques leads to a clear choice between two or more alternative hypotheses, or to the formulation of a new hypothesis amenable to experimental challenge or verification, or provides some new insight into the behaviour of a particular physiological system. Extensive technical details of hardware and software should not be given.

4. UNITS: THE SI SYSTEM

The recommended *Système International* (SI) units [see *Quantities, Units and Symbols*, 2nd edn (1975) The Royal Society, London] are used by *Clinical Science*. All papers submitted should use these units except for blood pressure values, which should be expressed in mmHg, or gas tensions, where values at the author's discretion may be given as mmHg (with kPa in parentheses) or as kPa (with mmHg in parentheses) in the text and either as mmHg or as kPa in Figures, which (if practicable) should have scales in both units. Airways pressure should be expressed in kPa. Where molecular weight is known, the amount of a chemical or drug should be expressed in mol or in an appropriate subunit, e.g. mmol. Energy should be expressed in joules (J).

The basic SI units and their symbols are as follows:

Physical quantity	Name	Symbol
length	metre	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
luminous intensity	candela	cd
amounts of substance	mole	mol

The following are examples of derived SI units:

Physical quantity	Name	Symbol	Definition
energy	joule	J	$\text{kg m}^2 \text{s}^{-2}$
force	newton	N	$\text{kg m s}^{-2} = \text{J m}^{-1}$
power	watt	W	$\text{kg m}^2 \text{s}^{-3} = \text{J s}^{-1}$
pressure	pascal	Pa	$\text{kg m}^{-1} \text{s}^{-2} = \text{N m}^{-2}$
electric charge	coulomb	C	A s
electric potential difference	volt	V	$\text{kg m}^2 \text{s}^{-2} \text{A}^{-1} = \text{J A}^{-1} \text{s}^{-1}$
electric resistance	ohm	Ω	$\text{kg m}^2 \text{s}^{-3} \text{A}^{-2} = \text{V A}^{-1}$
electric conductance	siemens	S	$\text{kg}^{-1} \text{m}^{-2} \text{s}^3 \text{A}^2 = \Omega^{-1}$
electric capacitance	farad	F	$\text{A}^2 \text{s}^3 \text{kg}^{-1} \text{m}^{-2} = \text{A s V}^{-1}$
frequency	hertz	Hz	s^{-1}
volume	litre	l	10^{-3} m^3

The word 'litre' has been accepted as a special name for cubic decimetre (1 litre = 1 dm³).

Both the basic and derived SI units, including the symbols of derived units that have special names, may be preceded by prefixes to indicate multiples and submultiples. The prefixes should be as follows:

Multiple	Prefix	Symbol	Multiple	Prefix	Symbol
10 ⁶	mega	M	10 ⁻³	milli	m
10 ³	kilo	k	10 ⁻⁶	micro	μ
10 ²	hecto	h*	10 ⁻⁹	nano	n
10	deka	da	10 ⁻¹²	pico	p
10 ⁻¹	deci	d*	10 ⁻¹⁵	femto	f
10 ⁻²	centi	c*			

* To be avoided where possible (except for cm).

Compound prefixes should not be used, e.g. 10⁻⁹ m should be represented by 1 nm, not 1 μm .

Notes:

(i) Full stops are not used after symbols.

(ii) Minutes (min), hours (h), days and years will continue to be used in addition to the SI unit of time [the second (s)].

(iii) The solidus may be used in a unit as long as it does not have to be employed more than once, e.g. mmol/l is acceptable, but ml/min/kg is not, and should be replaced by $\text{ml min}^{-1} \text{kg}^{-1}$.

5. ABBREVIATIONS, CONVENTIONS, DEFINITIONS, SYMBOLS AND SPECIAL COMMENTS

As well as standard symbols and abbreviations that have been accepted by international bodies, and which can be used without definition, this list shows selected abbreviations in the form of groups of capital letters (e.g. ALA, ECF, MCHC) which when used must be defined in the text as indicated on p. iv. The standard abbreviations for amino acids are only for use in Figures and Tables or for peptide sequences.

absorbance	A
acceleration due to gravity	g
adenosine 3':5'-cyclic monophosphate	cyclic AMP
adenosine 5'-phosphate	AMP
adenosine 5'-pyrophosphate	ADP
adenosine 5'-triphosphate	ATP
adenosine triphosphatase	ATPase
adrenocorticotrophic hormone	ACTH
adrenoreceptor (see also blocking agents)	
alanine	Ala
alternating current	a.c.
alveolar minute ventilation	\dot{V}_A
alveolar to arterial oxygen tension difference	$(P_{A,O_2} - P_{a,O_2})$
ampere	A
aminolaevulinic acid	ALA
angiotensin	ANG; reference amino acid abbreviations are used as prefix within brackets: e.g. [Sar ¹ ,Val ² ,Ala ⁸]ANG
Ångstrom (Å)	not used; express in nm (1 Ångstrom = 10 ⁻¹ nm)
antidiuretic hormone	ADH (when referring to the physiological secretion)
arginine	Arg
arteriovenous	a-v: permitted in Figures and Tables
asparagine	Asn
aspartic acid	Asp
atmosphere (unit of pressure)	not used; express in kPa (1 atmosphere = 101.325 kPa)
atomic weight	at. wt.
becquerel	Bq (1 d.p.s.)
blocking agents	e.g. β -adrenoreceptor antagonists preferred
blood pressure	express in mmHg
blood urea nitrogen	not used; recalculate as urea, express in mmol/l
blood volume	BV
body temperature and pressure, saturated	BTPS

British Pharmacopoeia	write in full and give edition	electromotive force	e.m.f.
calculated	calc. (in Tables only)	electron spin resonance	e.s.r.
'Calorie' (= 1000 cal)	<i>not used</i> ; recalculate as kilojoules (1 'Calorie' = 4.184 kJ)	electronvolt	eV (for radiation energies)
carbon dioxide output (in respiratory physiology)	\dot{V}_{CO_2} ; express in ml STP/min	equation	eqn.
cardiac frequency	f_c ; in beats/min	equivalents (amount of a chemical)	<i>not used</i> ; recalculate in molar terms
cardiac output	express in l/min	erythrocyte count	express as 10^{12} cells/l
centimetre	cm	erythrocyte sedimentation rate	ESR
clearance of x	C_x	ethanol, ethanolic	not ethyl alcohol or alcoholic
coenzyme A and its acyl derivatives	CoA and acyl-CoA	ethylenediaminetetra-acetate exchangeable	EDTA Na_a , K_c etc., for total exchangeable sodium, potassium etc.
compare	cf.	Experiment (with reference numeral)	Expt.; plural, Expts.
complement fractions	C1–C9	expired minute ventilation	\dot{V}_E
compliance (respiratory physiology)	C; express in 1 kPa^{-1}	extinction	use absorbance
concentrated	conc.	extracellular fluid	ECF
concentration	concn.; may be denoted []; e.g. plasma $[\text{HCO}_3^-]$	extracellular fluid volume	ECFV
conductance (respiratory physiology)	G; express in $1 \text{ s}^{-1} \text{ kPa}^{-1}$	extraction ratio of x (renal)	E_x
correlation coefficient	r; may be used without definition	Figure (with reference numeral)	Fig.; plural, Figs.
counts/min, counts/s	c.p.m., c.p.s.	filtered load of x (renal)	F_x
cubic centimetres	use ml	follicle-stimulating hormone	FSH
curie	Ci ($1 \text{ Ci} = 3.7 \times 10^{10}$ d.p.s.)	forced expiratory volume in 1.0 s	FEV _{1.0}
cycle/s	Hz	fractional concentration in dry gas	F
cysteine	Cys	fractional disappearance rate	k (as in $A = A_0 e^{-kt}$)
dates	e.g. 11 August 1970	frequency of respiration	f_R ; in breaths/min
dead-space minute ventilation	\dot{V}_D	functional residual capacity	FRC
dead-space volume	V_D	gas-liquid chromatography	g.l.c.
degrees, Celsius or centigrade	$^\circ\text{C}$	gas transfer factor	T; in $\text{mmol min}^{-1} \text{ kPa}^{-1}$
deoxy (prefix)	<i>not deoxy</i>	glomerular filtration rate	GFR
deoxycorticosterone	DOC	glutamic acid	Glu
deoxycorticosterone acetate	DOCA	glutamine	Gln
deoxyribonucleic acid	DNA	glutathione	GSH (reduced); GSSG (oxidized)
dialysate	diffusate preferred; 'dialysate' should be clearly defined	glycine	Gly
diethylaminoethylcellulose	DEAE-cellulose	gram(me)	g
differential of x with respect to time	\dot{x} (= dx/dt)	gravitational field, unit of (9.81 m s^{-2})	g
1,25-dihydroxycholecalciferol	1,25-(OH) ₂ D ₃	growth hormone	GH; if human, HGH
dilute	dil.	haematocrit	not allowed; use packed cell volume (PCV)
2,3-diphosphoglycerate	2,3-DPG	haemoglobin	Hb; express in g/dl
direct current	d.c.	half-life	$t_{1/2}$
disintegrations/min	d.p.m.	hertz (s^{-1})	Hz
disintegrations/s	d.p.s.	histidine	His
dissociation constant		hour	h
acidic	K_a	human chorionic gonadotropin	HCG
basic	K_b	human placental lactogen	HPL
apparent	e.g. K'_a	hydrocortisone	use cortisol
minus log of	pK	hydrogen ion activity minus log of	aH; express in nmol/l pH
doses	avoid Latin designations such as b.d. and t.i.d.	25-hydroxycholecalciferol	25-(OH)D ₃
dyne	<i>not used</i> ; express in newtons ($1 \text{ dyne} = 10^{-5} \text{ N}$)	hydroxyproline	Hyp
elastance	E; express in Pa m^{-3}	immunoglobulins	IgA, IgD, IgE, IgG, IgM
electrocardiogram	ECG		
electroencephalogram	EEG		

injection routes:	use abbreviations only in Figures	millimetre of mercury	mmHg; for blood pressure and, at authors' discretion, for gas tensions: see p. vi (1 mmHg = 0.133 kPa)
intra-arterial	i.a.		
intramuscular	i.m.		
intraperitoneal	i.p.		
intravenous	i.v.	millimolar (concentration)	mmol/l; <i>not</i> mM
subcutaneous	s.c.	millimole	mmol
international unit	i.u. (definition and reference should be given for uncommon or ambiguous applications, e.g. enzymes)	minimum	min.
		minute (60 s)	min
		molal	mol/kg
		molar (concentration)	mol/l; <i>not</i> M
		molar absorption coefficient	ϵ (the absorbance of a molar solution in a 1 cm light-path)
intracellular fluid	ICF		mol
intracellular fluid volume	ICFV	mole	mol. wt.
ionic strength	<i>I</i>	molecular weight	NAD if oxidation state not indicated
isoleucine	Ile	nicotinamide-adenine dinucleotide	NAD ⁺ if oxidized
isotonic	<i>not used</i> ; specify composition of fluid, e.g. NaCl, 150 mmol/l		NADH if reduced
			NADP if oxidation state not indicated
isotopically labelled compounds	e.g. [U- ¹⁴ C]glucose, [1- ¹⁴ C]glucose, sodium [1- ¹⁴ C]-acetate; <i>use</i> ¹³¹ I-labelled albumin, <i>not</i> [¹³¹ I]albumin	nicotinamide-adenine dinucleotide phosphate	NADP ⁺ if oxidized
			NADPH if reduced
	for simple molecules: ¹⁴ CO ₂ , ³ H ₂ O	normal	should not be used to denote the concentration or osmolarity of a solution
joule	J	normal temperature and pressure	<i>use</i> standard temperature and pressure (STP)
kilogram (me)	kg		
kilopond	<i>not used</i> ; 1 kilopond = 9.8067 N	nuclear magnetic resonance number (in enumerations)	n.m.r.
lactate dehydrogenase	LDH	observed	no. (in Tables only)
leucine	Leu	ohm	obs. (in Tables only)
leucocyte count	express as 10 ⁹ cells/l	ornithine	Ω
lipoproteins (serum)		ortho-	Orn
high density	HDL	orthophosphate (inorganic)	<i>o-</i>
low density	LDL	osmolality	<i>P</i> ₁
very low density	VLDL	oxygen uptake per minute (in respiratory physiology)	express in mol (or mmol)/kg
litre	1 (write in full if confusion with the numeral 1 is possible)	packed cell volume	\dot{V} O ₂ ; express in ml STP/min
logarithm (base 10)	log	page, pages	PCV
logarithm (base e)	ln	para-	p., pp.
luteinizing hormone	LH	para-aminohippurate	<i>p-</i>
lysine	Lys	partial pressure	PAH
maximum	max.		<i>P</i> ; express in either kPa or mmHg (see p. vi)
mean corpuscular haemoglobin	MCH; express in pg	e.g. alveolar, of O ₂	<i>PA</i> , O ₂
mean corpuscular haemoglobin concentration	MCHC; express in g/dl	arterial, of CO ₂	<i>Pa</i> , CO ₂
mean corpuscular volume	MCV; express in fl (1 μ m ³ = 1 fl)	capillary, of O ₂	<i>PC</i> , O ₂
		mixed venous, of CO ₂	<i>P</i> \dot{V} , CO ₂
median lethal dose	LD ₅₀	pascal	Pa
meta-	<i>m-</i>	per	/
melting point	m.p.	per cent	%
methanol, methanolic	<i>not</i> methyl alcohol	petroleum ether	<i>not used</i> ; <i>use</i> light petroleum and give boiling range
methionine	Met		
metre	m	phenylalanine	Phe
Michaelis constant	<i>K</i> _m	plasma renin activity	express as pmol of angiotensin I h ⁻¹ ml ⁻¹
micromole	μ mol		
micron (10 ⁻⁶ m)	μ m; <i>not</i> μ	plasma volume	PV
milliequivalent	<i>not used</i> ; give amount in mmol	poise	1 poise = 10 ⁻¹ N s m ⁻²
millilitre	ml		

potential difference	p.d.	specific conductance of	sGaw; express in
power output	W (1 W = 0.1635 kpm/min)	airways	$s^{-1} \text{ kPa}^{-1}$
precipitate	ppt.	standard deviation	SD } may be used SEM } without definition
pressure	P; express in kPa (except for blood pressures and gas tensions: see p. 6); 1 kPa = 7.5 mm Hg	standard error of the mean	
probability of an event being due to chance alone	P	standard temperature and pressure	STP
proline	Pro	steroid nomenclature	see <i>Biochemical Journal</i> (1969) 113, 5–28; (1972) 127, 613–617
protein-bound iodine (plasma)	PBI	sulphydryl	use thiol or SH
pulmonary capillary blood flow	\dot{Q}_c	sum	Σ
pyrophosphate (inorganic)	PPi	Svedberg unit	S
rad (radiation dose; 10^{-5} J absorbed/g of material)	not abbreviated	temperature (absolute)	T
red blood cell	use erythrocyte; express counts as 10^{12} cells/l	(empirical)	t
red cell mass	RCM	temperature, thermodynamic	$^{\circ}\text{K}$
relative band speed (partition chromatography)	R_F	thin-layer chromatography	t.l.c.
rem	100 ergs/g \times quality factor	threonine	Thr
renin	see plasma renin activity	thyrotrophic hormone	TSH
residual volume	RV	thyrotrophin-releasing hor- mone	TRH
resistance (rheological)	R; express in $\text{kPa l}^{-1} \text{ s}$	tidal volume	V_T
respiratory exchange ratio (pulmonary)	R	time (symbol)	t
respiratory quotient (metabolic)	RQ	time of day	e.g. 18.15 hours
revolutions	rev.	torr	not used; use kPa (1 torr = 0.133 kPa)
rev./min	not r.p.m.; use g if possible (see p. viii)	total lung capacity	TLC
ribonucleic acid	RNA	tryptophan	Trp
röntgen	R	tubular maximal reabsorptive capacity for x	$T_{m,x}$
saturation	S, e.g. S_a, O_2 for arterial oxygen saturation (see partial pressure for other analogous abbreviations)	tyrosine	Tyr
second (time)	s	ultraviolet	u.v.
serine	Ser	urinary concentration of x	U_x
sievert	Sv (1 J/kg \times quality factor)	valency	e.g. Fe^{2+} , not Fe^{++}
solvent systems	e.g. butanol/acetic acid/ water (4:1:1, by vol.), butanol/ acetic acid (4:1, v/v)	valine	Val
species	sp., plural spp.	variance ratio	F
specific activity	sp. act. Confusion must be avoided between e.g. specific radioactivity and the specific activity of an enzyme	vascular resistance	express in $\text{kPa l}^{-1} \text{ s}$ (with value in dyne cm s^{-5} in parentheses); primary values of dif- ferential vascular pres- sure (mmHg) and flow (l/min) should always also be given in Tables or text as appropriate
		velocity	v; express as m s^{-1}
		venous admixture	\dot{Q}_{va}
		veronal	used only for buffer mix- tures; otherwise use 5,5'-diethylbarbituric acid
		viscosity, dynamic	η
		viscosity, kinematic	ν
		vital capacity	VC
		volt	V
		volume of blood (in cardio- respiratory physiology)	\dot{Q} ; use \dot{Q} for blood flow rate
		watt	W
		wavelength	λ
		weight	wt.
		white blood cell	use leucocyte; express counts as 10^9 cells/l

Volume 58

AUTHOR INDEX

- ADAMS, J.F. 169-171
ADAMS, L. 83-91
ADIGUN, S.A. 549-552
AISENBREY, G.A. 493-500
ALBERTI, K.G.M.M. 153-155,
507-515
AL-UBAIDI, F. 45-51
AMIN, S. 101-103
ANDERSON, R.J. 493-500
ASHTON, B.A. 435-438
ATKINS, D. 201-210
AULD, C.D. 501-506
- BACON, S. 301-309
BAKHLE, Y.S. 45-51
BARBIERI, C. 135-138
BARNES, P.J. 457-461
BARNES, S. 485-492
BARTLETT, K. 111-114
BAUM, H. 403-409
BEASTALL, G.H. 105-106
BELLAMY, D. 403-409
BENNETT, T. 193-200
BERGSTRÖM, J. 553-555
BERL, T. 493-500
BERTHELOT, A. 365-371
BESSENT, R.G. 169-171
BETTER, I.S. 493-500
BINDER, C. 507-515
BING, R.F. 1-6, 15-20
BOARDMAN, A.K. 357-364
BOLTON, C.H. 419-421
BOOBIS, A.R. 311-316
BOTHWELL, T.H. 93-100
BRASH, H.M. 357-364
BURGESS, D.W. 263-270
BURSTON, D. 221-225
- CALDARA, R. 135-138
CALDER, I. 379-384
CAMPBELL, W.B. 415-450
CASALS-STENZEL, J. 445-450
CHABERT, P. 227-233
CHARLTON, R.W. 93-100
CLARK, R.J.H. 249-253
CLAUSEN, P.J. 279-286
CLOUGH, D.P. 549-552
COLE, P.V. 83-91
- COLLIER, V.U. 327-335
CONWAY, J. 549-552
COONEY, G.J. 337-340
CRAGG, S.J. 259-262
CRAIG, E. 327-340
GRILLY, R.G. 341-342
CURTARELLI, G. 135-138
- DASHER, C.A. 485-492
DAVIE, M. 235-242
DAVIES, D.S. 311-316
DAWSON, A.G. 337-340
DE HAAN, J.G. 321-325
DESAL, R. 403-409
DE SALAMANCA, R.E. 477-484
DICKENSON, C.J. 83-91
DOLLERY, C.T. 457-461
DUBIN, M. 545-548
- EISER, N.M. 537-544
ELDER, G.H. 477-484
ELIA, M. 301-309
ENGELKING, L.R. 485-492
ERLINGER, S. 545-548
EVANS, W.H. 439-444
- FATTI, L.P. 93-100
FAVRE, H. 385-391
FERRARI, C. 135-138
FITZGERALD, G.A. 423-425
FOREST, C. 255-257
FOSTER, F.J. 507-515
FÜRST, P. 553-555
- GAILLARD, R.C. 227-233
GAIRARD, A. 365-371
GALTON, D.J. 59-63
GAMMON, A. 431-433
GANAPATHY, V. 431-433
GOLDEN, M.H.N. 517-522
GOMPERTZ, D. 111-114
GORCHEIN, A. 469-476
GRANDCHAMP, A. 139-144
GREAVES, M. 201-210
GREENWOOD, P.V. 127-133
GUGGENHEIM, S.J. 493-500
GUPTA, V.J. 427-430
GUZ, A. 537-544
- HAMILTON, C.A. 37-43, 423-425
HAMPTON, J.R. 193-200
HANDELMAN, W.A. 493-500
HANNAN, W.J. 357-364
HART, D.M. 255-257
HART, S. 379-384
HARTOG, M. 419-421
HARTLING, O.J. 259-286
HATTON, R. 549-552
HAWKER, L.M. 243-248
HAWKER, R.J. 243-248
HELLIER, M.D. 431-433
HELLSTRÖM, K. 533-555
HENDERSON, A.R. 157-160
HIGENBOTTAM, T. 249-253
HINDS, C.J. 83-91
HINKS, L. 507-515
HIRSCHOWITZ, B.I. 485-492
HOFFBRAND, A.V. 101-103
HORSBURGH, T. 111-114
HORSMAN, A. 341-342
HOSKING, D.J. 193-200
HUGHES, J.M.B. 110-125
HUME, R. 105-106
HUNT, N.H. 463-467
HUTCHISON, D.C.S. 403-409
- IBBOTSON, D.J. 201-210
IDEURA, K. 21-27
IKEMOTO, F. 451-456
ILIC, V. 301-309
INGRAM, D. 83-91
- JACKSON, A.A. 517-522
JACKSON, L. 419-421
JAMES, W.P.T. 183-191
JEWELL, D.P. 295-300
JONES, D.H. 37-43, 311-316,
423-425
JONES, M.M. 341-342
JÖRNING, G.G.A. 321-325
JUNG, R.T. 183-191
- KAPPAGODA, C.T. 127-133
KARLINER, J.S. 457-461
KARRAN, S. 507-515
KAWAMURA, M. 451-456

- KAY, J. 83-91
 KIRSCHENBAUM, M.A. 393-401
 KOBAYASHI, Y. 173-175
 KRAPEZ, J.R. 83-91
 LAMBERT, P.P. 65-75
 LAMMENS-VERSLUPE, M. 65-75
 LASZLO, G. 263-270
 LAURBERG, P. 317-320
 LAWSON, D.E.M. 235-242
 LEE, M.R. 77-82
 LEVENSON, J.A. 349-356
 LIARD, J.-F. 271-277
 LIGHT, I.M. 501-506
 LINAS, S.L. 493-500
 LINDHEIMER, M.D. 139-144
 LINDSAY, R. 255-257
 LITTLER, W.A. 115-117
 LONDON, G.M. 349-356
 LOUIS, F. 385-391
 LYNCH, S.R. 93-100
 MACDONALD, C.M.L.A. 169-171
 MACPHERSON, J.N. 177-181
 MANZER, A. 145-152
 MARKER, J.D. 7-13
 MARKS, E.S. 1-6, 15-20
 MARTIN, T.J. 201-210
 MARTIN, T.R.P. 53-57
 MATHAN, V.I. 431-433
 MATTHEWS, D.M. 221-225
 MAURY, P. 165-168
 MAWER, E.B. 523-535
 MCRAE, K.D. 537-544
 MEE, A.S. 295-300
 MILES, T.S. 7-13
 MILLER, J.N. 263-270
 MILLER, M.J.S. 29-35
 MILLS, J. 537-544
 MITCH, W.E. 327-335
 MITO, Y. 21-27
 MÖLLER, P. 533-555
 MORTON, J.J. 445-450
 MOULDS, R.F.W. 373-378
 MUIR, A.L. 357-364
 MURRAY, S. 311-316
 NAFTEL, D. 485-492
 NATTRASS, M. 153-155
 NEALON, D.A. 157-160
 NOER, I. 279-286
 NORDIN, B.E.C. 341-342
 NORMAN, J.N. 501-506
 OATES, N.S. 77-82
 OKAHATA, S. 173-175
 OLMOS, A. 477-484
 ØRSKOV, H. 507-515
 PACIOREK, J. 161-164
 PALO, J. 165-168
 PEMBREY, R. 463-467
 PERKINS, C.M. 77-82
 PETERS, T.J. 211-220
 RADHAKRISHNAN, A.N. 431-433
 RANICAR, A. 101-103
 RECKLESS, J.P.D. 59-63
 REDDY, S.G. 427-430
 REEVE, J. 287-293
 REID, J.L. 37-43, 311-316, 423-425
 REINHARZ, A. 139-144
 RITTINGHAUSEN, R.E. 373-378
 RIONDEL, A.M. 227-233
 ROBERTS, C.J.C. 419-421
 ROSS, B. 379-384
 ROSSALL, R.E. 127-133
 ROWLANDS, D.B. 115-117
 SAFAR, M.E. 349-356
 SAMSON, G. 321-325
 SAPRU, R.P. 357-364
 SCARPELLO, J.H.B. 53-57
 SCHRIER, R.W. 493-500
 SCROOP, G.C. 7-13, 29-35
 SELDEN, C. 211-220
 SEMPLE, P.D'A. 105-106
 SEYMOUR, C.A. 211-220
 SHEPPARD, D.M. 477-484
 SHETTY, P.S. 183-191
 SHIIGAI, T. 21-27
 SHINOHARA, S. 21-27
 SHORT, M.D. 101-103
 SIMON, A.CH. 349-356
 SIZER, K. 153-155
 SMITH, B. 463-467
 SMITH, R. 301-309, 435-438
 SMYTHE, P. 507-515
 SNASHALL, P.D. 537-544
 SPENCER, N. 161-164
 SPENNEY, J.G. 485-492
 SPINKS, T. 101-103
 STALLARD, T.J. 37-43, 115-117
 STANBURY, S.W. 523-535
 SVENDSEN, T.L. 279-286
 SWALES, J.D. 1-6, 15-20
 TAKEUCHI, J. 21-27
 TALBOT, S. 507-515
 TANGE, J. 379-384
 TAVES, D. 145-152
 TAYLOR, E. 221-225
 THURSTON, H. 1-6, 15-20
 TOMITA, K. 21-27
 TOMIYAMA, O. 21-27
 TORRANCE, J.D. 93-100
 TOTHILL, P. 177-181
 TRAP-JENSEN, J. 279-286
 TREE, M. 445-450
 TURNELL, D. 507-515
 USUL, T. 173-175
 VAN GOOL, J. 321-325
 VALLOTTON, M.B. 139-144, 227-233
 VANHOLDER, R. 65-75
 VANRENTERGHEN, Y. 65-75
 WAGSTAFF, M. 259-262
 WALSER, M. 327-335
 WARD, J.D. 53-57
 WATERHOUSE, C. 145-152
 WATSON, R.D.S. 37-43, 115-117
 WATSON, W.S. 105-106, 169-171
 WHITE, N.J. 411-413
 WILCKEN, D.E.L. 427-430
 WILKINSON, A.R. 243-248
 WILLIAMS, J. 83-91
 WILLIAMSON, D.H. 301-309
 WINSBOROUGH, M. 263-270
 WOOTON, R. 287-293
 WORWOOD, M. 259-262
 YAMAMOTO, K. 451-456
 ZAWADA, E.T. 393-401
 ZIMMER, J.A. 415-418
 ZUYDERHOUDT, F.M.J. 321-325

Volume 58

SUBJECT INDEX

First and last page numbers of papers to which entries refer are given.
Page numbers marked with an asterisk refer to Editorial Reviews.

- Absorption**
calcium 287-293
competitive 221-225
dipeptides 221-225
iron 93-100
kinetics 221-225
- Acetylcholine, baroreceptor reflex** 7-13
- N'*-Acetyl- β -D-glucosaminidase, Crohn's disease** 295-300
- Acid-base balance**
cardiorespiratory arrest 127-133
respiratory pattern 343-348*
- Active transport** *see* Transport
- Acute intermittent porphyria, mauve factor** 469-476
- Adenosine 3':5'-cyclic monophosphate, excretion in cancer** 463-467
- Adrenaline, release by insulin** 415-418
- α -Adrenergic agonist** *see* Clonidine
- Adrenergic function, central** 135-138
- Adrenocorticotrophic hormone**
aldosterone regulation 227-233
spironolactone 227-233
- α -Adrenoreceptors, identified by [³H]prazosin in lung** 457-461
- β -Adrenoreceptors, binding of [³H]dihydroalprenolol** 457-461
- Aging, phosphagens in skeletal muscle** 553-555
- Airway resistance** 249-253
- Airways disease, chronic obstructive** 105-106
- Alanine**
diabetes 301-309
hepatic cirrhosis 301-309
hip replacement 301-309
muscular dystrophy 301-309
phenformin 153-155
protein-sparing infusions 507-515
- Aldosterone, spironolactone** 227-233
- Alkaline phosphatase**
menopause 341-342
Paget's disease 435-438
- Amino acids**
infusion in postoperative patients 507-515
sulphur-containing 427-430
- β -Aminoisobutyric acid** 427-430
- α -Amino-nitrogen pool** 517-522
- Anaemia**
Fanconi's 173-175
iron-deficiency 93-100
pernicious 101-103
- Anaemia** *see also* Vitamin B₁₂
- Analgesic nephropathy** 379-384
- Angiotensin, effect of captopril** 445-450
- Angiotensin II**
antagonists on cardiovascular response 549-552
baroreceptor reflex 7-13
removal from circulation 29-35
renin-angiotensin 15-20
saralasin 15-20
spironolactone 227-233
- [Sar¹, Ala⁸]Angiotensin II, effect on cardiovascular response** 549-552
- Antidiuretic hormone**
diabetes insipidus 139-144
kidney 139-144
- Antipyrine clearance** 419-421
- Arachidonic acid** 45-51
- Arginine vasopressin** 139-144
- Arterial baroreflexes** *see* Baroreceptor reflex
- Arterial hypertension** *see* Hypertension
- Arterial pressure**
dobutamine 271-277
physical activity 115-117
- Arterial pressure** *see also* Hypertension
- Artery**
isolated, muscle 373-378
pulse-wave velocity 53-57
- Aspartylglucosamine** 165-168
- Aspartylglycosaminuria, storage material** 165-168
- Atropine, systole** 357-364
- Baroreceptor reflex**
cardiopulmonary 193-200
carotid sinus 7-13
sensitivity in renal failure 21-27
- Bile acid, synthesis rate** 485-492

- Bile duct, ligation and antidiuretic hormone 493–500
- Bile secretion, effect of phalloidin 545–548
- Biotin, relation with carboxylases 111–114
- Blood flow
 diabetes 53–57
 exercise 279–286
- Blood platelets,¹¹¹ In labelling 243–248
- Blood pressure
 exercise 37–43
 hypotensive therapy 115–117
 reduction induced by lower-body negative pressure 549–522
- Blood pressure *see also* Hypertension
- Bone
 calcium absorption 287–293
 osteoporosis 341–342
 Paget's disease 435–438
- Bone resorption
 fluoride 145–152
 renal and breast tumors 201–210
- Bradykinin, potentiation by captopril 1–6
- Brain, amine turnover 311–316
- Breast cancer, bone resorption 201–210
- Breathing pattern 343–348*
- Bronchi, histamine receptors 537–544
- Bronchomotor tone 249–253
- Calciferol (vitamins D₂ plus D₃) 523–535
- Calcitonin in Paget's disease 435–438
- Calcium
 absorption 287–293
 parathyroid hormone 365–371
- Cancer, cyclic nucleotide excretion in 463–467
- Captopril
 blood pressure and angiotensin 445–450
 vasodepressor action 1–6
- Carbon dioxide, estimation of cardiac output 263–270
- Carboxylases, leucocyte 111–114
- Cardiac arrest 127–133
- Cardiac blood pool scanning 357–364
- Cardiac output
 dobutamine 271–277
 estimation 263–270
 indirect Fick method 263–270
- Cardiopulmonary baroreflexes 193–200
- Carotid sinus 7–13
- Catalase, iron overload 211–219
- Catechol-*O*-methyltransferase, erythrocyte 423–425
- Central adrenergic function 135–138
- Central circulating blood volume 549–552
- Cholecalciferol, metabolism 523–535
- Cholesterol
 glutethimide 419–421
 phalloidin on bile secretion 545–548
- Chloroid plexus, lignocaine transport 107–109
- Chronic renal failure
 baroreflex sensitivity 21–27
 creatinine metabolism 327–335
- Clonidine, hypertension 135–138
- Computer, model of respiratory system 83–91
- Cold storage, renin conversion 451–456
- Converting-enzyme inhibitor
 angiotensin 549–552
 captopril 1–6, 445–450
 SQ 14 225 15–20
- Corticosterone, effect of spironolactone 227–233
- Cortisol secretion 227–233
- Creatine–creatinine metabolism 327–335
- Creatine kinase, immunoglobulin complex 157–160
- Creatinine metabolism 327–335
- Crohn's disease 295–300
- Cyanocobalamin (vitamin B₁₂) 101–103
- Cyclic AMP
 adipose tissue 59–63
 breast cancer 201–210
 insulin 59–63
 obese diabetic patients 59–63
- Cysteine–homocysteine, mixed disulphide 427–430
- Cytosol, renal cortical homogenate 451–456
- Deamination, amino acid catabolism 517–522
- Deconvolution analysis 287–293
- Deoxycorticosterone acetate, hypertension 365–371
- Diabetes mellitus
 alanine 301–309
 cardiac R–R interval 193–200
 insulin 59–63
 pulse-wave velocity 53–57
- Digital artery, isolated 373–378
- 1,25-Dihydroxycholecalciferol 523–535
- 24,25-Dihydroxycholecalciferol 523–535
- 25,26-Dihydroxycholecalciferol 523–535
- Dipeptide, tropical sprue 431–433
- Dobutamine
 cardiogenic hypertension 271–277
 systole 357–364
- L-Dopa, hypertension 135–138
- Dopamine, mineralocorticoids 77–82
- Doppler ultrasound 53–57
- Dose–response curve, histamine 537–544
- Drugs, hepatic plasma-membrane modifications 439–444*

- Ejection fraction 357–364
- Enzyme induction with glutethimide 419–421
- Erythrocyte
 carbonic anhydrase I 161–164
 magnesium 255–257
 menopause 255–257
 uroporphyrinogen decarboxylase 477–484
- Exercise
 dynamic 279–286
 heart rate 37–43
 noradrenaline 37–43
- Extracellular volume expansion 385–392
- Fanconi's anaemia, erythrocyte superoxide dismutase activity 173–175
- Femoral artery, removal of angiotensin II and noradrenaline 29–35
- Ferritin
 anaemia 93–100
 plasma 259–262
 serum 321–325
- Fick, indirect method *see* Cardiac output
- Fluoride, bone stores 145–152
- Fractionation, analytical subcellular 211–219
- Free radicals, scavenging enzymes 211–219
- Geriatrics, orthostatic hypotension 411–413
- Glomerular sieving 65–75
- Glucagon
 natriuresis 393–401
 protein-sparing infusions 507–515
- D-Glucaric acid 419–421
- Gluconeogenesis, phenformin 153–155
- Glucose, effect of insulin 415–418, 507–517
- Glucuronide, HMPG conjugation 311–316
- Glutathione, iron overload 211–219
- Glutathione peroxidase, iron overload 211–219
- Glutathione reductase, secondary iron-overload 211–219
- Glutethimide, enzyme induction 419–421
- Glycerol metabolism, indomethacin 337–340
- [¹⁵N]Glycine, metabolism 517–522
- Growth hormone, secretion in hypertension 135–138
- Guanosine 3':5'-monophosphate, excretion in cancer 463–467
- H₁-receptor antagonist, chlorpheniramine 537–544
- H₂-receptor antagonist, cimetidine 537–544
- Haemochromatosis, primary iron damage 211–219
- Haemodialysis, sulphur-amino acids 427–430
- Haemodynamics in chronic bile-duct ligation 493–500
- Haemopyrrole lactam, schizophrenia and porphyria 469–476
- Heart
 ferritin 259–262
 rate 37–43, 411–413
 rate during cooling 501–506
 surgery 83–91
 systole 357–364
- Hepatitis, plasma membrane fractions 439–444*
- Hepato-biliary diseases, plasma-membrane modifications 439–444*
- Hepatitis, D-galactosamine-HCl 321–325
- Hering-Breuer reflex 343–348*
- Hip replacement, alanine load 301–309
- Histamine, receptors in bronchi 537–544
- Homocysteine, haemodialysis 427–430
- Hormone receptors, plasma-membrane modifications in disease 439–444*
- α₂HS-glycoprotein, Paget's disease 435–438
- 25-Hydroxycholecalciferol 523–535
- 4-Hydroxy-3-methoxyphenylethylene glycol, urinary conjugates 311–316
- Hydroxyproline excretion 341–342
- Hypercalcaemia, prostaglandin E₂ 201–210
- Hypercapnia, breathing pattern 343–348*
- Hypertension
 baroreflex sensitivity 21–27
 calcium 365–371
 cardiac haemodynamics 349–356
 cardiogenic 271–277
 clonidine 135–138
 L-dopa 135–138
 mineralocorticoids 365–371
 renal, Goldblatt two-kidney one-clip 1–6, 15–20
 renal failure 21–27
- Hypotension
 orthostatic 411–413
 therapy 115–117
- Hypothermia, cooling responses 501–506
- Hypoxia
 breathing pattern 343–348*
 testosterone depression 105–106
- Immunoglobulin G complex 157–160
- Indium-labelled blood platelets 243–248
- Indomethacin
 glycerol metabolism 337–340
 renin release 415–418
- Insulin
 glucose in postoperative patients 507–515
 potassium 415–418

- Insulin—continued*
 renin release 415–418
 resistance 59–63
 Intestinal transport, dipeptides 221–225
 Iodothyronine, release 317–320
 Iron
 anaemia 173–175
 deficiency 93–100
 ferritin 93–100
 overload 211–219
 storage in hepatitis 321–325
 Isoelectric focusing, ferritins 259–262
 Isoenzymes, creatine kinase-1 157–160
 Isoprenaline, systole 357–364
- Jaundice, obstructive, antidiuretic hormone 493–500
- Ketone bodies, postoperative patients 507–515
 Kidney
 antidiuretic hormone clearance 139–144
 bile-acid excretion 489–492
 cancer 201–210
 diabetes 139–144
 dopamine 77–82
 drug handling 379–384
 glomerular sieving 65–75
 micropuncture 139–144
 mineralocorticoid 77–82
 natriuretic factor 385–392
 nephropathy 65–75
 paracetamol 379–384
 prostaglandins 201–210
 vasopressin 139–144
 Kidney disease
 cancer 201–210
 chronic renal failure 21–27
 glomerulonephritis, experimental 65–75
 renal failure 327–335, 337–340, 427–430
 Kidney tubules, glycerol metabolism 337–340
- Lactate, phenformin 153–155
 Leucocyte
 biotin 111–114
 carboxylases 111–114
 emphysema 403–409
 tobacco smoke 403–409
 Lignocaine, transport 107–109
 Lipolysis, adenylyl cyclase–cyclic AMP system 59–63
 Lipoproteins, enzyme induction 419–421
 Liver
 alanine load 301–309
 chronic bile-duct ligation 493–500
 damage in iron overload 211–219
 induced hepatitis 321–325
 plasma-membrane modifications 439–444*
 Liver disease, bile acids in 485–492
 Lung
 adrenoreceptors 457–461
 vasoactive hormones 45–51
 volume 249–253
 Lymphocytes, aspartylglycosaminuria 165–168
 Lysosomes
 leucocyte 403–409
 storage disease 165–168
- Magnesium, menopause 255–257
 Mauve factor 469–476
 Menopause
 alkaline phosphatase 341–342
 hydroxyproline excretion 341–342
 magnesium 255–257
 Menstrual cycle, erythrocyte carbonic anhydrase I 161–164
 Metabolic acidosis, hypothermia 501–506
 Methionine, haemodialysis 427–430
 β -Methylcrotonyl-CoA carboxylase 111–114
 3-Methylhistidine, excretion postoperatively 507–515
 Microfilaments, biliary function 545–548
 Mineralocorticoid, effect on urinary dopamine 77–82
 Monoamines, inhibition in anaesthesia 45–51
 Monocytes, Crohn's disease 295–300
 Motor nerve, conduction velocity 21–27
 Muscle, skeletal
 metabolism 279–286
 muscular dystrophy 301–309
 Muscle, visceral, arterial 373–378
- Natriuresis
 glucagon-induced 393–401
 sodium balance 385–392
 Natriuretic factor, sodium balance 385–392
 Nephropathy, urea-induced 65–75
 Neuraminidase, serum ferritin 259–262
 Neurotransmitter, adrenergic, release 373–378
 Nitrogen, postoperative metabolite excretion 507–515
 Nitrous oxide, cardiac output measurement 263–270
 Noradrenaline
 baroreceptor reflex 7–13
 exercise 37–43
 insulin 415–418
 renal and femoral circulations 29–35

- Occupancy principle, metabolism of vitamin B₁₂ 169–171
- Oestrogen, therapy 255–257
- Oral contraceptives, erythrocyte carbonic anhydrase I 161–164
- Orthostatic hypotension, heart rate 411–413
- Osteomalacia, u.v. irradiation 235–242
- Osteoporosis, postmenopausal 341–342
- Oxygen utilization, in hypothermia 501–506
- Paget's disease 435–438
- Paper chromatography, ANG II extracts 445–50
- Paracetamol, renal metabolism 379–384
- Parathyroid hormone
induced hypertension 365–371
serum fluoride 145–152
- Peptides, intestinal absorption 221–225
- Phaeochromocytoma
brain amine turnover 311–316
haemodynamics 349–356
- Phagocytosis, tobacco smoke 403–409
- Phalloidin, effect on biliary lipid secretion 545–548
- Phenformin, gluconeogenesis 153–155
- Phosphagens, energy-rich, aging 553–555
- Plasma membrane, in liver disease 439–444*
- Plasma-renin activity, spironolactone 227–233
- Platelets, ¹¹¹In labelling 243–248
- Porphyria cutanea tarda 477–484
- Porphyrinogens, in porphyria cutanea tarda 477–484
- Potassium, insulin 415–418
- Progesterone, erythrocyte carbonic anhydrase I 161–164
- Prolactin, hypertension 135–138
- Propionyl-CoA carboxylase 111–114
- Propranolol, cardiogenic hypertension 271–277
- Prostaglandin
bone resorption in cancer 201–210
glucagon-induced natriuresis 393–401
precursor 45–51
- Prostaglandin E₂
inactivation 45–51
renin release 415–418
- Prostaglandin F_{2α}
baroreceptor reflex 7–13
renin release 415–418
- Proteinuria, urea-induced 65–75
- Pulmonary emphysema 403–409
- Pulse-wave velocity in diabetes 53–57
- Radioligand binding, lung adrenoreceptors 457–461
- Rebreathing, cardiac output during 263–270
- Renal artery, removal of angiotensin II and noradrenaline 29–35
- Renin
conversion on cold storage 451–456
release mediated by prostaglandins 415–418
- Renin-angiotensin system 1–6
- Renin-binding substance 451–456
- Respiration, artificial, computer model 83–91
- Respiratory pattern 343–348*
- R-R interval, diabetes mellitus 193–200
- Saralasin ([Sar¹, Ala⁸]angiotensin II), antagonism 15–20
- Schizophrenia, mauve factor in 469–476
- Shivering, hypothermia 501–506
- Sialic acid, residues in isoferitins 259–262
- Skeletal muscle, aging on phosphagens 553–555
- Skin, u.v. irradiation 235–242
- Sleep, arterial pressure 115–117
- Smooth muscle, isolated artery 373–378
- Sodium
dopamine production 77–82
excretion 385–392
glucagon 393–401
- Somatostatin, iodothyronine release 317–320
- Spironolactone, aldosterone regulation 227–233
- Starvation, alanine excretion 301–309
- Strontium (⁸⁵Sr), absorption 287–293
- Sulphate, HMPG conjugation 311–316
- Superoxide dismutase
Fanconi's anaemia 173–175
iron overload 211–219
- Surgery, protein-sparing infusions on metabolism 507–515
- Sympathetic nervous system
catechol-*O*-methyltransferase 423–425
exercise 37–43
- Testosterone, respiratory failure 105–106
- Thrombocyte
aggregation 243–248
¹¹¹In labelling 243–248
- Thyrocaltinin, serum fluoride 145–152
- Thyroid gland, idothyronine release 317–320
- Tobacco smoke, leucocyte phagocytosis 403–409
- Toxins, hepatic plasma-membrane modifications 439–444*
- Transamination, amino acid catabolism 517–522
- Transport
active, lignocaine 107–109
intestinal 221–225
- Triglycerides, enzyme induction 419–421
- Tropical sprue, dipeptide absorption 431–433

- Ulcerative colitis, enzyme activity 295–300
 Ultraviolet irradiation, plasma 25-hydroxyvitamin D 235–242
 Uraemic neuropathy, chronic renal failure 21–27
 Uroporphyrinogen decarboxylase 477–484
- Vascular disease, premature development 427–430
 Vasoconstriction, subatmospheric pressure 193–200
 Vasopressin
 kidney degradation 139–144
 radioimmunoassay 139–144
- Vegans, vitamin B₁₂ clearance 101–103
 Ventricular volume curves 357–364
 Vitamin B₁₂
 clearance 101–103
 pernicious anaemia 169–171
 Vitamin D
 deficiency 523–535
 u.v. irradiation 235–242
 Volume–pressure hysteresis 249–253
- Water, renal excretion 493–500
 Whole-body counting
 calcium absorption 287–293
 vitamin B₁₂ clearance 101–103

CORRECTION

Volume 57

page 412, Table 2: values on the top line should be deleted.