

# THE BRITISH JOURNAL OF NUTRITION

## DIRECTIONS TO CONTRIBUTORS

Papers submitted for publication in the *British Journal of Nutrition* should be as concise as possible. Economy of space should not, however, be achieved by suppressing useful results. Authors are invited to preserve experimental results too extensive for publication but deemed of importance and to indicate in the paper submitted their willingness to make such results available to others.

**Papers should be accompanied by a signed statement to the effect that the author accepts the conditions laid down in Directions to Contributors.** Special attention is directed to the sections below about the preparation of the typescript, and care in this matter will hasten publication.

The editors will return any typescript that does not conform to these conditions.

**Communications.** Papers submitted for publication should be sent to Dr C. C. Balch (*British Journal of Nutrition*), National Institute for Research in Dairying, Shinfield, Reading, RG2 9AT.

**General.** Submission of a paper to the Editorial Board will be held to imply that it represents the results of original research not previously published; that it is not under consideration for publication elsewhere; and that if accepted for the *British Journal of Nutrition* it will not be published elsewhere in the same form, in English or any other language, without the consent of the Editorial Board.

Authors' names should be given without titles or degrees. Women are requested to give one Christian name in full to avoid confusion. The name and address of the laboratory where the work was performed should be given. Any necessary descriptive material about the author, e.g. Beit Memorial Fellow, should appear in parentheses after the author's name or at the end of the paper, and not in the form of a footnote.

Typescripts should carry the name and address of the person to whom the proof of the paper is to be sent and should also give a shortened version of the paper's title, not exceeding forty-five letters and spaces in length, suitable for a running title in the published pages of the work.

**Form of Papers Submitted for Publication.** The onus of preparing a paper in a form suitable for sending to press lies in the first place with the author. Authors should consult a current issue in order to make themselves familiar with the practice of the *British Journal of Nutrition* as to typographical and other conventions, use of cross-headings, lay-out of tables, etc. Attention to these and other details (mentioned below) in the preparation of the typescript before it is sent to the Editors will shorten the time required for publication: the need for undue amounts of editorial revision caused by badly prepared typescript will lead to delay in publication. Papers on specialized aspects of the subject should be so presented as to make them intelligible, without undue difficulty,

to the ordinary reader of the *Journal*. Sufficient information should be given to permit repetition of the published work by any competent reader of the *Journal*.

Papers should be in double-spaced typing on one side of sheets of uniform size with large margins. Top copies only should be submitted, packed flat. The paper should be written in English, the spelling being that of the *Oxford English Dictionary*, and should, in general, be divided into the following parts. (a) *Synopsis*: each paper must open with a synopsis not more than 5% of the length of the following text. This synopsis should aim at giving a picture in miniature of the entire article. The past tense should be used in referring to the author's experimental work. The present tense may be used where reference to existing knowledge is necessary, or where the author is stating what is shown or concluded. The change of tense should clearly differentiate the author's contribution from what is already known. The sequence in the synopsis should be the same as that in the paper. It is desirable to divide the synopsis into a series of numbered paragraphs, giving, where relevant, the following information: a succinct account of the experimental work with essential facts about apparatus, chemicals, methods and animals; the results, singling out new information; the conclusions from the results. (b) *Introductory paragraph*: it is not now customary to introduce a paper with a full account of the relevant literature, but the introductory paragraph should help the reader by indicating briefly the nature of the question asked and the reasons for asking it. The answer obtained should be indicated if it is possible to do so shortly. (c) *Experimental methods adopted*: with chemical papers the experimental part will normally appear towards the end, but with other types of publication Methods should appear after the introduction. (d) *Results*: these should be given as concisely as possible, with the help of figures or tables. (e) *Discussion*: it is desirable that the presentation of the results and the discussion of their significance should be considered separately. (f) *References*: these should be given in the text thus: Barnett & Robinson (1942), (Culbertson & Thomas, 1933); where a paper to be cited has more than



substances, formulas may be used, particularly in the experimental portion, at the discretion of the editors. With salts it must be stated whether or not the anhydrous material is used, e.g. anhydrous  $\text{CuSO}_4$ , or which of the different crystalline forms is meant, e.g.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ,  $\text{CuSO}_4 \cdot \text{H}_2\text{O}$ .

**Description of Solutions.** Solutions of common acids, bases and salts are preferably defined in terms of normality (N) or molarity (M), e.g.  $\text{N-HCl}$ ;  $0.1\text{M-NaH}_2\text{PO}_4$ . The term ‘%’ must be used in its correct sense, i.e. g/100 g of solution. 10% HCl means 10 g of hydrogen chloride in 100 g of aqueous solution, and should never be used to indicate a tenfold dilution of laboratory concentrated hydrochloric acid. For ‘per cent by volume’, i.e. ml/100 ml, the term ‘% (v/v)’ may be used. To indicate that a given weight of substance is contained in 100 ml of solution, the term ‘% (w/v)’ may be used.

**Nomenclature of Vitamins.** The following names have been adopted by the IUPAC Commission of Nomenclature of Biological Chemistry, have been published in *Handbook for Chemical Society Authors* (Special Publication no. 14, 1961, 2nd ed., p. 200. London: The Chemical Society) and, as amended in *J. chem. Soc.* 1962, p. 5312, are accepted by the Editors of the *British Journal of Nutrition*.

Fat-soluble vitamins:

Present name	Name adopted
Vitamin A <sub>1</sub> or xerophthol	Retinol
Retinene	Retinal
Vitamin A acid	Retinoic acid
Vitamin A <sub>2</sub>	3-Dehydroretinol or dehydroretinol
Retinene 2	3-Dehydroretinal or dehydroretinal
Vitamin D <sub>2</sub> or calciferol	Ergocalciferol
Vitamin D <sub>3</sub>	Cholecalciferol
Other D vitamins derived from 7-dehydro-steroids	To be named analogously, as above
Vitamins E	$\alpha$ -, $\beta$ -, $\gamma$ -...tocopherol

Vitamin K. When 2-methyl-3-phytyl-1,4-naphthaquinone [vitamin K<sub>1</sub>] is designated by a trivial name, that name shall be phyloquinone.

Vitamins of the K<sub>2</sub> series should be designated as menaquinones-*n* (abbreviated where necessary to MK-*n*), where *n* is the number of isoprene units in the side-chain. Thus vitamin K<sub>2</sub> (35) would be menaquinone-7. The nomenclature for other naturally occurring quinones (ubiquinones, plastoquinones and tocopherolquinones) and related substances should follow the Tentative Rules of the IUPAC-IUB Commission on Biochemical Nomenclature (see *Biochem. J.*, 1967, 102, 15).

When 2-methyl-1,4-naphthaquinone (MK-0) is designated by a trivial name it may be called menaphthone.

Water-soluble vitamins:

Present name	Name adopted
Vitamin B <sub>1</sub> , aneurin or thiamine	Thiamine
Vitamin B <sub>2</sub> or riboflavin	Riboflavine
Vitamin PP, niacinamide or nicotinamide	Nicotinamide*

\* The Editors of the *British Journal of Nutrition* propose always to use the name nicotinic and not niacin.

Vitamins B <sub>12</sub> (collectively)	Cobalamin†
Vitamin B <sub>12</sub> (pure substance)	Cyanocobalamin
Vitamin B <sub>12b</sub>	Hydroxocobalamin
Vitamin B <sub>12c</sub>	Nitritocobalamin
Vitamin C or ascorbic acid	Ascorbic acid
Inositol	Meso-inositol

Vitamin B<sub>6</sub>. The term pyridoxine may be used as a group name to designate the naturally occurring pyridine derivatives with vitamin B<sub>6</sub> activity.

3-Hydroxy-4,5-dihydroxymethyl-2-methylpyridine (hitherto called pyridoxine) shall now be called pyridoxol. The 4-CHO and 4-CHNH<sub>2</sub> derivatives shall be named pyridoxal and pyridoxamine respectively.

Folic acids. The term folic acid may be used as a group name to designate the naturally occurring pteroylglutamic acids.

The pure substance hitherto known as folic acid, folacine or vitamin B<sub>9</sub> shall be named pteroylmonoglutamic acid.

Compounds analogous to pteroylmonoglutamic acid but containing several glutamic acid residues united by amide linkages may be named pteroyltriglutamic acid, pteroylheptaglutamic acid, etc.

In addition the Editors of the *British Journal of Nutrition* wish to retain the old more comprehensive names vitamin A, vitamin D, vitamin E, vitamin K, vitamin B<sub>1</sub>, vitamin B<sub>12</sub> and vitamin C to cover the biological activity when more than one active substance are or may be concerned.

The names pantothenic acid, biotin, *p*-aminobenzoic acid and choline remain unchanged.

**Nomenclature of Fatty Acids.** In the description of results obtained for the analysis of fatty acids by conventional gas-liquid chromatography, the shorthand designation proposed by Farquhar, J. W., Insull, W., Rosen, P., Stoffel, W. & Ahrens, E. H. (*Nutrition Reviews*, 1959, 17, supplement) for individual fatty acids should be used in the text, tables and figures. Thus 18:1 should be used to represent a fatty acid with 18 carbon atoms and 1 double bond; if the position and configuration of the double bond is unknown, this fatty acid should not be referred to as oleic acid. The shorthand designation should also be used in the synopsis but sentences should be constructed so that it is clear to the non-specialist reader that 18:1 refers to a fatty acid; for example, ‘...resulted in an increase in the concentration of the fatty acid 18:1 in the liver triglycerides...’. If the positions and configurations of the double bonds are known, and these are important to the discussion, then a fatty acid such as linoleic acid may be referred to as 18:2  $\Delta$  9-*cis*, 12-*cis* (positions of double bonds related to the  $\alpha$ -carbon atom). However, when essential and related fatty acids derived from animal tissues are being considered, it is preferable to refer to fatty acids such as linoleic acid as 18:2 $\omega$ 6 and arachidonic acid as 20:4 $\omega$ 6 (position of double bonds related to the  $\omega$ -carbon atom); it is assumed that the double bonds are methylene-

† The full definitive rules of nomenclature of vitamin B<sub>12</sub> and the other corrinoids will be found in *Vitamin B<sub>12</sub> und Intrinsic Faktor. 2. Europäisches Symposium Hamburg 1961* (H. C. Heinrich, editor, 1962, p. 764; Stuttgart: Ferdinand Enke Verlag) and *J. Am. chem. Soc.* 1960, 82, 5581.

interrupted and are of the *cis*-configuration (see Holman, R. T. in *Progress in the Chemistry of Fats and Other Lipids*, 1966, vol. 9, part 1, page 3. Oxford: Pergamon Press). Groups of fatty acids that have a common chain length but vary in their double bond content or double bond position should be referred to, for example, as C<sub>20</sub> fatty acids or C<sub>20</sub> polyunsaturated fatty acids. Impure samples of fatty acids such as those used in the preparation of diets should be referred to, for example, as 'linoleic acid'.

**Nomenclature of Enzymes.** The nomenclature should be that of the Recommendations of the Commission on Enzymes of the International Union of Biochemistry, 1964 (*Comprehensive Biochemistry*, Vol. 13, *Enzyme Nomenclature*, 2nd ed., 1965 [M. Florin and E. H. Stotz, editors]: London: Elsevier Publishing Co. Ltd).

**Nomenclature of Micro-organisms.** *Bacteria.* Scientific names of bacteria should be binomials, the generic name only with a capital, and should be underlined once (for italic) in the typescript. Names for new species or genera, or new combinations of generic and specific names should be formed in accordance with the International Bacteriological Code published in *J. Bact.* 1948, 55, 287, and (in 1949) in *Congr. int. Microbiol.* iv (1948), *Copenhagen*, p. 587. Wherever possible the names of recognized species should be those used in Topley & Wilson's *Principles of Bacteriology and Immunity* (1955: 4th ed. London: Edward Arnold and Co.). However, where authors wish for good reasons to use some other name (e.g. one used in Bergey's *Manual of Determinative Bacteriology*, 1957: 7th ed. London: Baillière, Tindall and Cox), the Topley & Wilson name should be inserted in parentheses at the first citation thus: *Serratia marcescens* (*Chromobacterium prodigiosum*).

A name must be given in full at the first mention in a paper; in subsequent mention the generic name may be abbreviated, but the abbreviation must be unambiguous. Single letter abbreviations should, in general, be avoided (thus: *Staph. aureus*, *Strep. pyogenes*, not *S. aureus*, *S. pyogenes*). When the generic name is used to define a group it should have a capital but should not be italicized; trivial names, or generic names used as adjectives, should not have capitals or be italicized. Examples of 'trivial names' are: staphylococci, streptococci, and meningococci or meningococcus (generic name is *Neisseria*). *Staphylococcus* and *Streptococcus* are generic names and the following passage illustrates the correct usage. 'This investigation is concerned with *Salmonella enteritidis*, because this *Salmonella* is important as a cause of disease in man and, because of experimental salmonella infections in the mouse, it is the most easily controlled. Tests with staphylococci, including *Staph. aureus*, have

not contributed to the understanding of susceptibility to staphylococcal infection.'

*Microfungi* should be designated as in Ainsworth & Bisby's *A Dictionary of the Fungi* (1954: 4th ed. Kew: Commonwealth Mycological Institute).

### Other Nomenclature, Symbols and Abbreviations.

Authors should follow current numbers of the *British Journal of Nutrition* in this connexion. The chemical nomenclature adopted is that of the Chemical Society (see *Handbook for Chemical Society Authors* (Special Publication no. 14, 1961, 2nd ed. London: The Chemical Society)). For nomenclature of amino acids, this Handbook (p. 186) and *Br. J. Nutr.* 1953, 7, 1 should be consulted. The symbols and abbreviations, other than units, are essentially those listed in *British Standard* 1991; Part 1, *General: Letter Symbols, Signs and Abbreviations* (B.S. 1991: Part 1: 1954, incorporating amendments issued July 1955 (PD 2241), February 1957 (PD 2707) and October 1960 (PD 3902), 7s.). BMR may be used for basal metabolic rate or basal metabolism.

Spectrophotometric terms and symbols are those proposed by the Society of Public Analysts and other Analytical Chemists (see *Analyst, Lond.* 1942, 67, 164). For mathematical notation and numerals the rules laid down in *Proc. R. Soc. A*, 1909, 82, 14 should be followed. The attention of authors is particularly drawn to the following symbols: m( = milli) = 10<sup>-3</sup>, μ( = micro) = 10<sup>-6</sup>, n or mμ( = nano or millimicro) = 10<sup>-9</sup> and p or μμ( = pico or micromicro) = 10<sup>-12</sup>. Note also that ml (millilitres) should be used instead of c.c., μm (micrometre) instead of μ (micron), and μg (microgrammes) instead of γ.

**Proofs.** Proofs are sent to authors in order that they may make sure that the paper has been correctly set up in type, and not that they may add new material. Otherwise increased printing charges are inevitable. Excessive alteration may have to be disallowed. The symbols used to indicate corrections should be those laid down in *British Standard* 1219 C: 1958 (2s. 6d.).

A corrected proof and the typescript should be returned without delay to Dr C. C. Balch, National Institute for Research in Dairying, Shinfield, Reading, RG2 9AT.

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