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Aims and Scope

The *British Journal of Nutrition* is an international, peer-reviewed journal publishing original papers, review articles, short communications and technical notes on human and clinical nutrition, general nutrition, and animal nutrition. Correspondence is encouraged in a nutrition discussion forum. The Journal recognizes the multidisciplinary nature of nutritional science and encourages the submission of material from all of the specialities involved in research and clinical practice. The Journal also publishes supplements on topics of particular interest.

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Application for membership is invited from anyone whose work has contributed to the scientific knowledge of nutrition, whether such work has been in the laboratory, the field or the clinic, and whether experimental, clinical, agricultural or statistical in nature. There is also a student membership scheme with reduced subscriptions.

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Contents

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THE BRITISH JOURNAL OF NUTRITION

DIRECTIONS TO CONTRIBUTORS

(Revised January 1997)

The *British Journal of Nutrition* publishes reports in English of original work in all branches of nutrition from any country. The Editorial Board is also willing to consider review articles, including those critically re-examining published information and the conclusions drawn from it. There is also the facility for the publication of short communications, which will be expedited through the review process. The aim of all work presented should be to develop nutritional concepts.

Papers submitted for publication should be as concise as possible. Economy of space should not, however, be achieved by suppressing useful results.

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; care in this matter will hasten publication. The Editors will return any typescript that does not conform to these conditions. Contributors of accepted articles will be asked to assign their copyright, on certain conditions, to The Nutrition Society to help protect their material.

Letters to the Editors. Letters are invited which discuss, criticize or develop themes put forward in papers published in the *Journal* or deal with other matters relevant to the *Journal*. They should not (*a*) normally exceed one printed page (approximately 600 words or the equivalent), (*b*) normally contain any figures, (*c*) be used as a means of publishing new work.

Acceptance will be at the discretion of the Editorial Board and editorial changes may be required. If a letter is critical of a published paper the author(s) of that paper will be informed and given the opportunity to reply in the same issue.

Nutrition Discussion Forum. Longer letters of a topical or critical nature will be considered for inclusion in a Nutrition Discussion Forum.

Communications. All material for publication should be sent to The Chairman of the Editorial Board, *British Journal of Nutrition*, 10 Cambridge Court, 210 Shepherds Bush Road, London W6 7NJ, UK. Receipt of papers will be acknowledged.

General. Submission of a paper to the Editorial Board will be held to imply that it represents the results of original research or of an original interpretation of existing knowledge 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 in any other language, without the consent of the Editorial Board.

Authors' names should be given without titles or degrees and one forename may be given in full. The name and address of the laboratory or institution 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 bear the name and address, together with telephone and fax numbers and e-mail 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.

If a paper requiring revision is not resubmitted within 3 months, it may, on resubmission, be deemed a new paper and the date of receipt altered accordingly.

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, layout of tables and so on. Papers will not be accepted as part of a numbered series. Instead there should be a short common title separated by a colon from a subtitle more specific to the paper. 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: badly prepared typescripts will be returned to the author. Any potentially ambiguous words such as 'available' must be properly defined. 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*. Authors are invited to nominate up to six potential referees for each paper submitted, who may then be asked by the Editorial Board to help review the work.

Papers should be in double-spaced typing on one side of sheets of paper (thin paper should not be used) of uniform size with wide margins. At the ends of lines of typing, words should not be hyphenated unless hyphens are to be printed. A space of 50 mm should be left at the top of the first sheet. Line-numbered paper should be used. Four complete copies, including all plates and fig-

ures, should be submitted packed flat for both newly-presented and revised papers. Exceptionally for papers from overseas a top copy and one other copy will be accepted but this may cause some delay in handling. When a paper has been accepted, authors are encouraged to supply the word-processed text stored on floppy disk, provided the software is IBM/DOS-compatible, but floppy disks **must** be accompanied by a hard copy. This will enable papers to be handled more rapidly, with fewer typesetting errors.

The paper should be written in English, the spelling being generally that of the *Concise Oxford Dictionary*, 9th ed. Oxford: Clarendon Press 1995. If, occasionally, other spellings are preferred this will be indicated during technical editing. The paper should, in general, be divided into the following parts. (*a*) *Synopsis:* each paper must open with a synopsis of not more than about 250 words. It 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 synopsis should be a single paragraph of continuous text outlining the aims of the work; the experimental approach taken, mentioning specific techniques where relevant; the principal results, emphasizing new information; the conclusions from the results and their relevance to nutrition science. The use of numerical information in the synopsis should be kept to a minimum. (*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. (*c*) *Experimental methods adopted:* 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:* while it is generally desirable that the presentation of the results and the discussion of their significance should be presented separately, there may be occasions when combining these sections may be beneficial. Authors may also find that additional or alternative sections such as 'objectives' or 'conclusions' may be useful. (*f*) *References:* these should be given in the text thus: Sebrell & Harris (1967); or (Wallace & West, 1982); where a paper to be cited has more than two authors, citations should appear thus: (Peto *et al.* 1981). Where more than one paper has appeared in one year for which the first name in a group of three or more authors is the same, the reference should be given as follows: Adams *et al.* (1962*a*, *b*, *c*); or (Adams *et al.* 1962*a*, *b*, *c*; Ablett & McCance, 1971). In the text, references should be given in chronological order. At the end of the paper, on a page(s) separate from the text, references should be listed in alphabetical order according to the name of the first author of the publication quoted, names with prefixes being entered under the prefix, and should include the author's initials and the title of the paper. Names and initials of authors of unpublished work should be given in the text and not included in the References. Titles of journals should appear in full. References to books and monographs should include the Publisher's name, the town of publication and the number of the edition to which reference is made. Thus:

Ablett, J. G. & McCance, R. A. (1971). Energy expenditure of children with kwashiorkor. *Lancet* **ii**, 517–519.

Adams, R. L., Andrews, F. N., Gardiner, E. E., Fontaine, W. E. & Carrick, C. W. (1962*a*). The effects of environmental temperature on the growth and nutritional requirements of the chick. *Poultry Science* **41**, 588–594.

Adams, R. L., Andrews, F. N., Rogler, J. C. & Carrick, C. W. (1962*b*). The protein requirement of 4-week-old chicks as affected by temperature. *Journal of Nutrition* **77**, 121–126.

Adams, R. L., Andrews, F. N., Rogler, J. C. & Carrick, C. W. (1962*c*). The sulfur amino acid requirement of the chick from 4 to 8 weeks of age as affected by temperature. *Poultry Science* **41**, 1801–1806.

Agricultural Research Council (1981). *The Nutrient Requirements of Pigs*. Slough: Commonwealth Agriculture Bureaux.

Edmundson, W. (1980). Adaptation to undernutrition: how much food does man need? *Social Science and Medicine* **14 D**, 19–126.

European Communities (1971). *Determination of Crude Oils and Fats, Process A*. Part 18, *Animal Feedingstuffs*, pp. 15–19. London: H.M. Stationery Office.

Hegsted, D. M. (1963). Variation in requirements of nutrients–amino acids. *Federation Proceedings* **22**, 1424–1430.

Heneghan, J. B. (1979). Enterocyte kinetics, mucosal surface area and mucus in gnotobiotes. In *Clinical and Experimental Gnotobiotics. Proceedings of the VIth International Symposium on Gnotobiology*, pp. 19–27 [T. M. Fliedner, H. Heit, D. Niethammer and H. Pflieger, editors]. Stuttgart: Gustav Fischer Verlag.

Hill, D. C. (1977). Physiological and biochemical responses of rats given potassium cyanide or linamarin. In *Cassava as an Animal Feed. Proceedings of a Workshop held at University of Guelph, 1977. International Development Research Centre Monograph* 095e, pp. 33–42 [B. Nestel and M. Graham, editors]. Ottawa, Canada: International Development Research Centre.

Lau, E. M. C. (1988). Osteoporosis in elderly Chinese (letter). *British Medical Journal* **296**, 1263.

Louis-Sylvestre, J. (1987). Adaptation de l'ingestion alimentaire aux dépenses energétiques (Adaptation of food intake to energy expenditure). *Reproduction Nutrition Développement* **27**, 171–188.

Martens, H. & Rayssiguier, Y. (1980). Magnesium metabolism and hypomagnesaemia. In *Digestive Physiology and Metabolism in Ruminants*, pp. 447–466 [Y. Ruckebusch and P. Thivend, editors]. Lancaster: MTP Press Ltd.

Ministry of Agriculture, Fisheries and Food (1977). *Energy Allowances and Feeding Systems for Ruminants. Technical Bulletin* no. 33. London: H.M. Stationery Office.

Peto, R., Doll, R., Buckly, J. D. & Sporn, M. B. (1981). Can dietary beta-carotene materially reduce human cancer rates? *Nature* **290**, 201–208.

Sebrell, W. H. Jr & Harris, R. S. (1967). *The Vitamins*, 2nd ed., vol. 1. London: Academic Press.
Statistical Analysis Systems (1985). *SAS User's Guide, Statistics*. Cary, NC: SAS Institute Inc.
Statistical Package for Social Sciences (1988). *Base Manual + V2·0*. Chicago, IL: SPSS Inc.
Technicon Instruments Co. Ltd. (1967). *Technicon Methodology Sheet* N-36. Basingstoke: Technicon Instrument Co. Ltd.
Van Dokkum, W., Wesstra, A. & Schippers, F. (1982). Physiological effects of fibre-rich types of bread. 1. The effect of dietary fibre from bread on the mineral balance of young men. *British Journal of Nutrition* **47**, 451–460.
Wallace, R. J. & West, A. A. (1982). Adenosine 5′ triphosphate and adenylate energy charge in sheep digesta. *Journal of Agricultural Science, Cambridge* **98**, 523–528.
Wilson, J. (1965). Leber's disease. PhD Thesis, University of London.
World Health Organization (1965). *Physiology of Lactation. Technical Report Series* no. 305. Geneva: WHO.

Mathematical Modelling of Nutritional Processes. Papers in which mathematical modelling of nutritional processes forms the principal element will be considered for publication provided: (i) it is based on demonstrably sound biological and mathematical principles, (ii) it advances nutritional concepts or identifies new avenues likely to lead to such advances, (iii) assumptions used in its construction are fully described and supported by appropriate argument, (iv) it is described in such a way that its nutritional purpose is clearly apparent, (v) the contribution of the model to the design of future experimentation is clearly defined.

Units. Results should be presented in metric units according to the International System of Units (see *Quantities, Units, and Symbols*. London: The Royal Society, 1971, and *Metric Units, Conversion Factors and Nomenclature in Nutritional and Food Sciences*. London: The Royal Society, 1972—as reproduced in *Proceedings of the Nutrition Society* (1972) **31**, 239–247).

Energy measurements should be expressed in joules.

For substances of known molecular weight, e.g. glucose, urea, Ca, Na, Fe, K, P, values should be expressed as mol/l; for substances of indeterminate molecular weights, e.g. phospholipids, proteins, and for trace elements, e.g. Cu, Zn, then g/l should be used.

Time. The 24 h clock should be used, e.g. 15.00 hours.

Statistical Treatment of Results. Authors should, wherever possible, discuss the design of their study with a statistician before embarking on the experimental phase; poor design can seriously weaken the resulting paper. Careful consideration should be given to the number of subjects used; results from small experiments are unreliable. Sufficient information about the design of the experiment should be given so that anyone wishing to repeat it could do so.

Data from individual replicates should not be given for large experiments, but may be given for small studies. The methods of statistical analysis used should be described unambiguously, but information such as analysis of variance tables should be given in the paper only if they are relevant to the discussion. A statement of the number of replicates, their average value and some appropriate measure of variability is usually sufficient.

Comparisons between means can be made by using either confidence intervals or significance tests; both are based on basic measures of variability. The most appropriate of such measures is usually the standard error of a difference between means (SED), or the standard errors of the means (SE or SEM) when these vary between means. The standard deviation (SD) is more useful only when there is specific interest in the variability of individual values. The degrees of freedom associated with SED, SEM or SD should also be stated. When presenting results, forms such as 'mean 3·51 (SE 0·67) μmol' should be adopted, rather than the cryptic use of the notation '±'. The number of decimal places quoted should be sufficient but not excessive.

If comparisons between means are made using confidence intervals (CI), these may be presented as, e.g. 'difference between means 0·73 g (95% CI 0·14, 1·36)'. Confidence intervals have the advantage, compared with significance tests, of giving information about the sensitivity of the comparison. If significance tests are used, a statement that the difference between the means for two groups of values is (or is not) statistically significant should include the level of significance attained, preferably as an explicit P value (e.g. $P = 0{\cdot}016$ or $P = 0{\cdot}32$) rather than as a range (e.g. $P < 0{\cdot}05$ or $P > 0{\cdot}05$). It should be stated whether the significance levels quoted are one-sided or two-sided. Where a multiple comparison procedure is used, an unambiguous description or explicit reference should be given. Where appropriate, a superscript notation may be used in tables to denote levels of significance; like superscripts should denote lack of a significant difference.

Where the method of analysis is unusual, or if the experimental design is at all complex, further details (e.g. experimental plan, raw data, confirmation of assumptions, analysis of variance tables, etc.) should be submitted in an accompanying document. Analyses which frequently cause difficulties are change-over designs and other studies with sequential observations on the same experimental unit, studies where variation differs substantially between treatment groups, and studies with a factorial treatment structure or with increasing levels (e.g. doses) of the same treatment factor.

Biological Assays. Biological assays in which, for example, potency of a nutrient in an ingredient is estimated by a biological response should be based on soundly conducted multi-point responses that allow validity of the assay to be established and measures of variance to be associated with results. Authors should refer to papers of this type in recent issues of the *Journal*.

Figures. These include graphs, histograms, complex formulas, metabolic pathways. Originals and photocopies should be submitted, each on a separate sheet not larger overall than the sheets on which the paper itself is typed, and packed flat. Mounting on heavy cardboard is undesirable. Photographs of line drawings are accepted if

printed on matt paper. In curves presenting experimental results the determined points should be clearly shown, the symbols used being, in order of preference, ○, ●, △, ▲, □, ■, ×, +. Curves and symbols should be drawn with a mechanical aid and not free-hand, and should not extend beyond the experimental points. Scale-marks on the axes should be on the inner side of each axis and should extend beyond the last experimental point.

One copy of each figure should be provided without numbers and letters; these will be inserted by the printer. On each figure should be typed or stencilled: (*a*) the title of the paper and the names of the authors; (*b*) the figure number. Legends for all figures should be typed on one separate sheet (two or more, if necessary) and numbered corresponding to the relevant figures. Each figure, with its legend, should be comprehensible without reference to the text. The approximate position of each should be indicated in the margin of the text thus: 'Fig. 1 near here'.

Plates. Black and white positive prints of good quality are required, and should be accompanied by a legend prepared as above. The size of photomicrographs may have to be altered in printing. To avoid mistakes, the magnification must be shown by a scale on the photograph itself, e.g. thus: 1 μm. The scale with the appropriate unit should be drawn by the author on the flyleaf together with any lettering and will be inserted by the printer. Do not write details on the back of prints, bend, use paper-clips or mark in any way. The plate number, title of the paper and authors' names should be typed on a label and pasted onto the back of the print.

Tables. Tables should carry headings describing their content and should be comprehensible without reference to the text. The dimensions of the values, e.g. mg/kg, should be given at the top of each column and not repeated on each line of the table. Tables should not normally be included in the body of the text, but should be typed on separate sheets. Tables should not be subdivided by ruled lines. Abbreviations in tables must be defined in footnotes. Signs for footnotes should be used in the sequence: *†‡§ ‖ ¶, then ** etc. (omit * or †, or both, from the sequence if they are used to indicate levels of significance). The approximate position should be indicated in the margin of the text thus: 'Table 1 near here'.

Diagrams. Diagrams to appear as tables (e.g. flow diagrams) should be prepared as for Tables using Letraset or stencils. No flyleaf is required.

Key Words. Authors should supply two or three key words or phrases (each containing up to three words) on the title page of typescripts. These will be used to compile subject indexes of published papers. Please see a recent issue of the *British Journal of Nutrition Cumulative Index* for examples of approved key words.

Chemical Formulas. These should be written as far as possible on a single horizontal line. With inorganic substances, formulas may be used from first mention. With salts, it must be stated whether or not the anhydrous material is used, e.g. anhydrous $CuSO_4$, or which of the different crystalline forms is meant, e.g. $CuSO_4.5H_2O$, $CuSO_4.H_2O$.

Descriptions of Solutions, Compositions and Concentrations. Solutions of common acids, bases and salts should be defined in terms of molarity (M), e.g. 0·1 M-NaH_2PO_4. Compositions expressed as mass per unit mass (w/w) should have values expressed as ng, μg, mg, or g per kg; similarly for concentrations expressed as mass per unit volume (w/v), the denominator being the litre. Concentrations or compositions should not be expressed on a percentage basis. The common measurements used in nutritional studies, e.g. digestibility, biological value and net protein utilization, should be expressed as decimals rather than percentages, so that amounts of available nutrients can be obtained from analytical results by direct multiplication. See *Metric Units, Conversion Factors and Nomenclature in Nutritional and Food Sciences*. London: The Royal Society, 1972 (para 8).

Nomenclature of Vitamins. Most of the names for vitamins and related compounds that are accepted by the Editors are those recommended by the IUNS Committee on Nomenclature. See *Nutrition Abstracts and Reviews* A (1978), **48**, 831–835.

Acceptable Name	*Other names**
Vitamin A	
Retinol	Vitamin A_1
Retinaldehyde, retinal	Retinene
Retinoic acid (all-trans or 13-cis)	Vitamin A_1 acid
3-Dehydroretinol	Vitamin A_2
Vitamin D	
Ergocalciferol, ercalciol	Vitamin D_2 calciferol
Cholecalciferol, calciol	Vitamin D_3
Vitamin E	
α-, β- and γ-tocopherols plus tocotrienols	
Vitamin K	
Phylloquinone	Vitamin K_1
Menaquinone-n (MK-n)†	Vitamin K_2
Menadione	Vitamin K_3, menaquinone, menaphthone
Vitamin B_1	
Thiamin	Aneurin(e), thiamine
Vitamin B_2	
Riboflavin	Vitamin G, riboflavine, lactoflavin
Nicotinic acid or niacin	Nicotinic acid
Niacin	
Nicotinamide	Vitamin PP
Nicotinic acid	
Folate or Folic Acid	
Pteroyl(mono)glutamic acid	Folacin, vitamin B_C or M
Vitamin B_6	
Pyridoxine	Pyridoxol
Pyridoxal	
Pyridoxamine	
Vitamin B_{12}	
Cyanocobalamin	
Hydroxocobalamin	Vitamin B_{12a} or B_{12b}

Aquocobalamin	
Methylcobalamin	
Adenosylcobalamin	
Inositol	
Myoinositol	Meso-inositol
Choline	
Panthothenic acid	
Biotin	Vitamin H
Vitamin C	
Ascorbic acid	
Dehydroascorbic acid	

* Including some names which are still in use elsewhere, but are not used by the *British Journal of Nutrition*.

† Details of the nomenclature for these and other naturally occurring quinones should follow the Tentative Rules of the IUPAC-IUB Commission on Biochemical Nomenclature (see *European Journal of Biochemistry* (1975), **53**, 15–18).

Generic descriptors. The terms **vitamin A**, **vitamin C** and **vitamin D** may still be used where appropriate for example in phrases such as 'vitamin A deficiency', 'vitamin D activity'.

Vitamin E. The term **vitamin E** should be used as the descriptor for all tocol and tocotrienol derivatives exhibiting qualitatively the biological activity of α-tocopherol. The term **tocopherols** should be used as the generic descriptor for all methyl tocols. Thus, the term tocopherol is not synonymous with the term **Vitamin E**.

Vitamin K. The term **vitamin K** should be used as the generic descriptor for 2-methyl-1,4-naphthoquinone (menaphthone) and all derivatives exhibiting qualitatively the biological activity of phylloquinone (phytylmenaquinone).

Niacin. The term **niacin** should be used as the generic descriptor for pyridine 3-carboxylic acid and derivatives exhibiting qualitatively the biological activity of nicotinamide.

Vitamin B_6. The term **vitamin B_6** should be used as the generic descriptor for all 2-methylpyridine derivatives exhibiting qualitatively the biological activity of pyridoxine.

Folate. Due to the wide range of carbon-substituted, unsubstituted, oxidized, reduced and mono- or poly-glutamyl side-chain derivatives of pteroylmonoglutamic acid which exist in nature, it is not possible to provide a complete list. Authors are encouraged to use either the generic name, or the correct specific name(s) of the derivatives, as appropriate for each circumstance.

Vitamin B_{12}. The term **vitamin B_{12}** should be used as the generic descriptor for all corrinoids exhibiting qualitatively the biological activity of cyanocobalamin. The term **corrinoids** should be used as the generic descriptor for all compounds containing the corrin nucleus and thus chemically related to cyanocobalamin. The term **corrinoid** is not synonymous with the term **vitamin B_{12}**.

Vitamin C. The terms **ascorbic acid** and **dehydroascorbic acid** will normally be taken as referring to the naturally occurring L-forms. If the subject matter includes other optical isomers, authors are encouraged to include the L- or D- prefixes, as appropriate. The same is true for all those vitamins which can exist in both natural and alternative isomeric forms.

Amounts of vitamins and summation. Weight units are acceptable for the amounts of vitamins in foods and diets. For concentrations in biological tissues, SI units should be used; however, the authors may, if they wish, also include other units, such as weights or international units, in parentheses.

See *Metric Units, Conversion Factors and Nomenclature in Nutritional and Food Sciences*. London: The Royal Society, 1972 (paras. 8 and 14–20).

Nomenclature of Fatty Acids and Lipids. 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**, Suppl.) 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 eighteen carbon atoms and one 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 concentrations of the fatty acid 18 : 1 in the liver triacylglycerols...'. 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 *cis*-9,*cis*-12-18 : 2 (positions of double bonds related to the carboxyl carbon atom 1). However, to illustrate metabolic relations between different unsaturated fatty acid families, it is sometimes more helpful to number the double bonds in relation to the terminal methyl carbon atom, *n*. The preferred nomenclature is then: 18 : 3*n*-3 and 18 : 3*n*-6 for α-linolenic and γ-linolenic acids respectively; 18 : 2*n*-6 and 20 : 4*n*-6 for linoleic and arachidonic acids respectively and 18 : 1*n*-9 for oleic acid. Positional isomers such as α- and γ-linolenic acid should always be clearly distinguished. It is assumed that the double bonds are methylene-interrupted and are of the *cis*-configuration (see Holman, R. T. in *Progress in the Chemistry of Fats and Other Lipids*, vol. 8, part I, p. 3. Oxford: Pergamon Press, 1966). 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_{20} fatty acids or C_{20} polyunsaturated fatty acids. The modern nomenclature for glycerol esters should be used, i.e. triacylglycerol, diacylglycerol, monoacylglycerol *not* triglyceride, diglyceride, monoglyceride. The form of fatty acids used in diets should be clearly stated, i.e. whether ethyl esters, natural or refined fats or oils. The composition of the fatty acids in the dietary fat and tissue fats should be stated clearly, expressed as mol/100 mol or g/100 g total fatty acids.

Nomenclature of Enzymes. The nomenclature should be that of the Recommendations of the Nomenclature Committee of the International Union of Biochemistry

(*Enzyme Nomenclature*. London: Academic Press, 1992). Relevant *EC* numbers should be given.

Nomenclature of Micro-organisms. The correct name of the organism, conforming with international rules of nomenclature, must be used: if desired, synonyms may be added in parentheses when the name is first mentioned. Names of bacteria must conform with the current Bacteriological Code and the opinions issued by the International Committee on Systematic Bacteriology. Names of algae and fungi must conform with the current International Code of Botanical Nomenclature. Names of protozoa must conform with the current International Code of Zoological Nomenclature.

The following books may be found useful:

Holt, J. G., Krieg, N. R., Sneath, P. H. A., Staley, J. T. & Williams, S. T. (1994). *Bergey's Manual of Determinative Bacteriology*, 9th ed. Baltimore: The Williams and Wilkins Co.

N. J. W. Kreger-van Rij (editor) (1984). *The yeasts, a taxonomic study*. Amsterdam: Elsevier Science Publishers.

Ainsworth and Bisby's Dictionary of the fungi, (1983), 7th ed. Kew: Commonwealth Mycological Institute.

Nomenclature of Plants. For plant species where a common name is used that may not be universally intelligible, the Latin name in italics should follow the first mention of the common name. The cultivar should be given where appropriate.

Other Nomenclature, Symbols and Abbreviations. Authors should follow current numbers of the *British Journal of Nutrition* in this connection. The IUPAC rules on chemical nomenclature should be followed, and the Recommendations of the IUPAC-IUB Commission on Biochemical Nomenclature (see *Biochemical Journal* (1978) **169**, 11–14). The symbols and abbreviations, other than units, are essentially those listed in *British Standard* 5775 (1979–1982). *Specifications for Quantities, Units and Symbols*, parts 0–13. Day should be abbreviated to d, for example 7 d; except for example, 'each day', '7th day' and 'day 1'.

Elements and simple chemicals (e.g. Fe and CO_2) can be referred to by their chemical symbol or formula from the first mention in the text; titles can be taken as an exception. Well-known abbreviations for chemical substances may be used without explanation, thus: RNA for ribonucleic acid and DNA for deoxyribonucleic acid. Other substances that are mentioned frequently may also be abbreviated, the abbreviation being placed in parentheses at the first mention, thus: free fatty acids (FFA) after that, FFA. Terms such as 'bioavailability' or 'available' may be used providing that the use of the term is adequately defined.

Spectrophotometric terms and symbols are those proposed in *IUPAC Manual of Symbols and Terminology for Physicochemical Quantities and Units* (1979) (London: Butterworths). The attention of authors is particularly drawn to the following symbols: m (=milli)$=10^{-3}$, μ (micro)10^{-6}, n (nano)10^{-9} and p (pico)10^{-12}. Note also that ml (millilitre) should be used instead of cc, μm (micrometre) instead of μ (micron) and μg (microgram) instead of γ.

Numbers. Figures should be used with units, for example 10 g, 7 d, 4 years (except when beginning a sentence, thus 'Four years ago...'); otherwise, words (except when 100 or more), thus: one man, ten ewes, ninety-nine flasks, three times (but with decimal 2·5, times), 100 patients, 120 cows, 136 samples.

Ethics of Human Experimentation. The notice of contributors is drawn to the guide-lines in the Declaration of Helsinki (1964) (*British Medical Journal* (1964) ii, 177–178), the Report of ELSE as printed in *British Journal of Nutrition* (1973) **29**, 149, the *Guidelines on the Practice of Ethics Committees Involved in Medical Research Involving Human Subjects*, (1990) (London: The Royal College of Physicians) and to the *Guidelines for the Ethical Conduct of Medical Research Involving Children*, published in 1992 by the British Paediatric Association, 5 St Andrew's Place, Regents Park, London NW1 4LB. A paper describing any experimental work on human subjects should include a statement that the Ethical Committee in the Institution in which the work was performed has approved it and the authors should submit a copy of the letter of approval with the paper. A paragraph headed *Ethical considerations* in which the experiments are discussed and justified from an ethical standpoint should form the last paragraph of the Experimental section.

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