

Information for Authors

THE AMERICAN JOURNAL OF CLINICAL NUTRITION

INTRODUCTION

The purpose of *The American Journal of Clinical Nutrition (AJCN)* is to publish original research studies relevant to human and clinical nutrition. Well-controlled clinical studies that describe scientific mechanisms, efficacy, and safety of dietary interventions in the context of disease prevention or a health benefit will be considered. Public health and epidemiologic studies relevant to human nutrition, and innovative investigations of nutritional questions that employ epigenetic, genomic, proteomic, and metabolomic approaches are encouraged. Solicited editorials, book reviews, solicited or unsolicited review articles, invited controversy position papers, and letters to the Editor that relate to prior *AJCN* articles are essential components of the *AJCN*. All submitted material with scientific content will undergo peer review by the Editors or their designees before acceptance for publication.

Symposia or workshop articles may be published as supplements to the *AJCN* and are funded by their sponsors at a special page charge. The *AJCN* welcomes queries about the publication of supplements. The *AJCN* uses a 2-part acceptance process for supplements. The first step involves editorial acceptance of the topic and content as provided by the symposium organizer; the second step involves anonymous peer review of the individual articles. To be considered for publication, supplement articles must be received within 3 mo of each symposium or workshop. Each manuscript should not exceed 15 text pages, exclusive of tables, figures, and references; must adhere to *AJCN* style and format; and will be reviewed according to the same scientific standards used to evaluate original research articles.

All material to be considered for publication in a regular issue should be submitted electronically at the following website:

<https://www.rapidreview.com/ASCN2/CALogon.jsp>. See "Tips for authors submitting manuscripts to the *AJCN*" for helpful advice regarding electronic submission.

All material to be considered for publication in a supplement issue should be sent to the following address:

Editorial Office
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Original manuscripts will be considered with the understanding that no part has been published, simultaneously submitted, or already accepted for publication elsewhere, other than in abstract form.

Material published in the *AJCN* is copyrighted by the American Society for Nutrition, Inc (ASN), and may not be reproduced without permission from the Managing Editor, *The American Journal of Clinical Nutrition*, 9650 Rockville Pike, Bethesda, MD 20814-3998. E-mail: ajcnproofs@nutrition.org. If the original source is cited, the abstract appearing at the beginning of each article may be reproduced or translated for noncommercial purposes without specific permission.

To prevent conflicts of interest from arising during the peer review process, the *AJCN* requires individuals who are asked to review a manuscript to decline the solicitation if they have:

1) served as an adviser or advisee to an author on the current manuscript;

2) collaborated or served as a coauthor with an author of the manuscript during the past 3 years;

3) are currently affiliated with, were previously employed within the past 12 months by, or are being considered for employment at the institution of an author;

4) participated in a consulting/financial arrangement with an author in the past 3 years;

5) are the spouse, child, sibling, parent, partner, or close friend, or otherwise have a relationship that might affect judgment, or could be seen as doing so by a reasonable person familiar with the relationship; or

6) any other personal, financial or other relationship with one or more of the authors that might influence an unbiased assessment of the current work.

SUMMARY OF REQUIREMENTS

Each manuscript component should begin on a new page in the following sequence:

Title page
Abstract
Text
Acknowledgments
References
Tables: each table on a separate page, complete with title and footnotes
Legends for figures
Figures

Identify on the title page the author who will be responsible for correspondence regarding the manuscript. The signed Authors' Agreement form and copies of any documents granting permission needed to reproduce material in print and electronic form or to use illustrations of identifiable subjects should be scanned and e-mailed to ajcn@nutrition.org. If scanning is not possible, then the Authors' Agreement form and any necessary documents may be faxed to (301) 634-7892. Authors should keep copies of all submitted material.

The *AJCN* encourages authors to provide the names, fields of interest, addresses, telephone and fax numbers, and e-mail addresses of **4-6 unbiased and qualified potential expert** reviewers from outside the authors' institutions.

MAJOR SECTIONS OF THE *AJCN*

Editorials
Review Articles
Special Invited Articles, including Controversies and Perspectives
Original Research Communications
Letters to the Editor
Book Reviews
Books Received
ASN Announcements
Calendar of Events

Letters to the Editor that refer to a recent *AJCN* article must be received within 12 wk of the article's publication. Letters must be double-spaced, should include a title page, should have no more than 10 references, and **should not exceed 1000 words**. All letters will be subjected to editorial review and decision before acceptance. The *AJCN* does not accept letters that are unrelated to a specific, recently published article; that contain extensive unpublished data; or that engage in personal slander or invective. Letters should be submitted by e-mail to ajcnsubmit@nutrition.org. All letters to the Editor and book reviews must include a conflict of interest statement.

CRITERIA FOR MANUSCRIPT ACCEPTANCE

The *AJCN* can publish only about 25% of the more than 1500 original submissions received per year. Submitted manuscripts may be rejected without detailed comments after initial review by at least 2 *AJCN* editors if the manuscripts are considered inappropriate or of insufficient scientific priority for publication in the *AJCN*. All other manuscripts undergo a complete review by at least 2 consulting editors or other selected experts. Criteria for acceptance by the *AJCN* include originality, validity of data, clarity of writing, strength of the conclusions, and potential importance of the work to the field of clinical nutrition. Submitted manuscripts will not be reviewed if they do not conform to standard English usage and to the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” (Internet: <http://www.icmje.org/>), which is also available free of charge from the Secretariat Office, *Annals of Internal Medicine*, American College of Physicians, Independence Mall West, Sixth Street at Race, Philadelphia, PA 19106-1572.

FORMAT AND STYLE REQUIREMENTS

Articles are copyedited according to *AJCN* style policy, the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals,” and the style manual of the Council of Science Editors (Scientific style and format: the CSE manual for authors, editors, and publishers. 7th ed. Reston, VA: The Council, 2006).

Please refer to the following references for recommendations on reporting the details of randomized trials:

Moher D, Schulz KF, Altman DG; CONSORT GROUP (Consolidated Standards of Reporting Trials). The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. *Ann Intern Med* 2001;134(8):657–62 or at www.consort-statement.org.

Altman DG, Schulz KF, Moher D, Egger M, Davidoff F, Elbourne D, Gotzsche PC, Lang T; CONSORT GROUP (Consolidated Standards of Reporting Trials). The revised CONSORT statement for reporting randomized trials: explanation and elaboration. *Ann Intern Med* 2001;134(8):663–94 or at www.consort-statement.org.

Gagnier JJ, Boon H, Rochon P, Moher D, Barnes J, Bombardier C; CONSORT Group. Reporting randomized, controlled trials of herbal interventions: an elaborated CONSORT statement. *Ann Intern Med* 2006;144(5):364–7 or at www.consort-statement.org.

Please refer to the following references for recommendations on reporting the details of epidemiological and genetics studies:

von Elm E, Altman DG, Egger M, et al. The Strengthening of Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *J Clin Epidemiol* 2008;61: 344–9. doi: 10.1016/j.jclinepi.2007.11.008.

Little J, Higgins JPT, Ioannidis JPA, et al. Strengthening the Reporting of Genetic Association Studies (STREGA): an extension of the STROBE statement. *Ann Intern Med* 2009;150:206–15.

Authorship

Scientific conduct

Each author must have participated sufficiently, intellectually or practically, in the work to take public responsibility for the content of the article, including the conception, design, and conduct of the experiment, and for the data interpretation. An article with corporate (collective) authorship must specify the key persons responsible for the article; others contributing to the work should be recognized separately. A description of the contribution of each author must be provided in the

Acknowledgment section. The Editors may require authors to justify the assignment of authorship. All authors must sign a statement agreeing to all the requirements for authorship with the transfer of copyright (http://www.ajcn.org/misc/Authors'_Agreement_Form.pdf).

Conflict of interest

Authors must disclose in the Acknowledgment section any financial or personal interests in any company or organization sponsoring the research currently or at the time the research was done. Such interests may include employment, sharing in a patent, serving on an advisory board or speakers' panel, or owning shares in the company.

Instructions for manuscript preparation

The manuscript should be formatted as follows: 216 × 279 mm (8½ × 11 in) or ISO A4 (212 × 297 mm), with margins of at least 2.5 cm; use double-spacing and 12-point type throughout. Do not justify the right margin. **The abstract and text pages should have line numbers in the left margin.** Number pages consecutively in the upper right-hand corner of each page, beginning with the title page. Foreign authors are advised to have their manuscripts reviewed by a scientific colleague who is fluent in English so that the manuscripts will conform to US English usage and grammar.

Title page

The title page should contain: 1) the title of the article, beginning with a key word if possible, with only the first letter of the first word capitalized; 2) The names of all authors (first name, middle initial, last name) including their departmental and institutional addresses. Indicate which authors are associated with which institutions by numbered footnotes. Identify a corresponding author and provide a complete mailing address, telephone number, fax number, and email address. Please note that all authors' names should appear on the manuscript exactly as they should appear in PubMed if the paper is published. ASN will not replace files to correct author names once published. 3) The last name of each author for the purpose of PubMed indexing; 4) the affiliation of each author at the time the work was done, with the use of author initials in parentheses to designate which affiliation corresponds to which author; 5) disclaimers, if any; 6) the name, mailing address, telephone and fax numbers, and e-mail address of the author responsible for correspondence about the manuscript; 7) the name and mailing and e-mail addresses of the author to whom requests for reprints should be addressed or a statement that reprints will not be available from the author; 8) sources of support, including grants, fellowships, and gifts of materials (eg, chemicals, experimental diets); and 9) a short running head of **not more than 50 characters** (count letters and spaces).

Abstract

A properly constructed and informative abstract is helpful for the initial editorial review of the submitted manuscript. Original research articles must include a structured abstract that contains no more than 250 words, is written **in complete sentences**, and includes the following headings:

Background: Provide 1 or 2 sentences that explain the context of the study.

Objective: State the precise objective, the specific hypothesis to be tested, or both.

Design: Describe the study design, including the use of cells, animal models, or human subjects. Identify the control group. Identify specific methods and procedures. Describe interventions, if used.

Results: Report the most important findings, including results of statistical analyses.

Conclusions: Summarize in 1 or 2 sentences the primary outcomes of the study, including their potential clinical importance, if relevant (avoid generalizations).

Review articles, special articles, and reports should include an unstructured abstract (no more than 250 words) that states the purpose of the article and emphasizes the major concepts and conclusions.

Text

Use active voice whenever possible. Use past tense when describing and discussing the experimental work on which the article is based. Reserve present tense for reference to existing knowledge or prevailing concepts and for stating conclusions from the experimental work. Clearly differentiate previous knowledge and new contributions. Do not use *level* when referring to a concentration. Use metric units of measure; SI units are no longer required.

The text of observational and experimental articles should be divided into sections with the following headings: Introduction, Subjects (or Materials, for cell or animal studies) and Methods, Results, and Discussion. Long articles may require subheadings within some sections. Authors should consult recent issues of the *AJCN* for guidance on the formatting of other types of articles, book reviews, and editorials.

Introduction

Clearly state the purpose of the article. Summarize the rationale and background for the study or observation, giving only strictly pertinent references. Do not include methods, data, results, or conclusions from the work being reported. The Introduction should be limited to 1.5 manuscript pages.

Subjects (or Materials) and Methods

Describe clearly your selection of the experimental and control subjects and provide eligibility and exclusion criteria and details of randomization. Describe the methods for, and success of, any masking (blinding) of observations. Report any complications of experimental treatments. Identify the methods, apparatus (manufacturer's name and location in parentheses), and procedures in sufficient detail to allow other researchers to reproduce the results. Do not use trademark names, such as Teflon, as generic terms. Give references for established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known; and describe new or substantially modified methods, giving reasons for using them and evaluating their limitations. Identify precisely all drugs and chemicals used, including generic names, dosages, and routes of administration. If trade names for drugs and chemicals are included, give the manufacturer's name and location.

Ethics. When reporting experiments on human subjects, indicate that the procedures followed were in accordance with the ethical standards of the responsible institutional or regional committee on human experimentation or in accordance with the Helsinki Declaration of 1975 as revised in 1983. Do not use patients' names, initials, or hospital identification numbers. When reporting experiments on animals, indicate approval by the institution's animal welfare committee and state whether the National Research Council's guide for the care and use of laboratory animals was followed.

Clinical Trials. The *AJCN* requires registration of all clinical trials that begin after July 1, 2008 in the appropriate public trials registry. Such registries include those maintained by the US National Library of Medicine (<http://www.clinicaltrials.gov>) and Current Controlled Trials (<http://controlled-trials.com>). Prior to July 1, 2008, the *AJCN* strongly recommends that such trials be registered.

Statistics. Describe statistical methods with enough detail to enable a knowledgeable reader with access to the original data to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (eg, CIs, SDs, or SEs), even for differences that were not significant. Report the numbers of observations. Specify any general-use computer programs used, including the version number and the manufacturer's name and location. Include general descriptions of statistical methods in the Subjects (or Materials) and Methods section and specific descriptions in each table and figure legend. Indicate whether variables were transformed for analysis. Provide details about what hypotheses were tested, what statistical tests were used, and what the outcome and explanatory variables were (where appropriate). Indicate the level of

significance used in tests if different from the conventional 2-sided 5% alpha error and whether or what type of adjustment is made for multiple comparisons.

When data are summarized in the Results section, specify the statistical methods used to analyze them. Avoid nontechnical uses of technical statistical terms, such as *random* (which implies a randomizing device), *normal*, *significant*, *correlation*, *sample*, and *parameter*. Define statistical terms, abbreviations, and symbols not listed under "Commonly used approved abbreviations" below. Detailed statistical analyses, mathematical derivations, and the like may sometimes be suitably presented as one or more appendixes.

Results

Present your results in a logical sequence in the text, tables, and figures. Do not present specifics of data more than once and do not duplicate data from tables or figures in the text; emphasize or summarize only important observations. Do not present data from individual subjects except for very compelling reasons. Report losses to observation (such as dropouts from a clinical trial). Use boldface for the first mention of each table or figure.

Discussion

The Discussion should not exceed 4 typewritten pages except in unusual circumstances as approved by the Editor. Emphasize concisely the novel and important aspects of the study and the conclusions that follow from them. Do not repeat in detail data or other material given in the Introduction or Results. Include the implications of the findings and their limitations and relate the observations to other relevant studies. Link conclusions with the goals of the study and avoid unqualified statements and conclusions that are not completely supported by the data. Avoid claiming priority and alluding to work that has not been completed. State new hypotheses and recommendations when warranted by the results and label them clearly as such.

Acknowledgments

Acknowledge only persons who have made substantive contributions to the study. Authors are responsible for obtaining written permission from everyone acknowledged by name and for providing to the Editor a copy of the permission, if requested. Each author is required to list his or her contribution to the work (such as design of the experiment, collection of data, analysis of data, writing of the manuscript, or provision of significant advice or consultation) and to disclose any financial or personal relationships with the company or organization sponsoring the research at the time the research was done. Such relationships may include employment, sharing in a patent, serving on an advisory board or speakers' panel, or owning shares in the company. The source of support for the research reported in the paper should be listed on the title page, not as an acknowledgment.

References

Number references consecutively in the order in which they are first mentioned in the text. Identify references by Arabic numerals in parentheses. References cited in tables or in legends to figures should be numbered according to the first citation of the table or figure in the text. Appendixes should have a separate reference section.

It is rarely necessary to cite more than 50 references in an original research article. Try to avoid citing published abstracts as references [if a published abstract is cited, include "(abstr)" at the end of the reference]. Abstracts from scientific meetings not published in peer-reviewed journals may not be used as references. Unpublished observations and personal communications (written, not oral) may not be used as references but may be inserted in parentheses with the names of the responsible researchers and the year of the observation or communication. Authors are responsible for obtaining written permission from everyone so cited and for providing to the Editor a copy of the permission, if requested. Doctoral dissertations may be used as references. Include manuscripts accepted but not yet published; designate journal name followed by "(in press)." Report foreign titles in the original language, identify the language, and provide the English

translation in parentheses. The references must be verified by the author against the original documents.

Journals

1) Journal article with DOI: If an article has a DOI number (“digital object identifier” number unique to the publication), it may be included at the end of the reference.

Hamer M, Steptoe A. Prospective study of physical fitness, adiposity, and inflammatory markers in healthy middle-aged men and women. *Am J Clin Nutr* 2009;89:85-89. doi: 10.3945/ajcn.2008.26779.

2) Standard journal article: list all authors when 6 or fewer; when 7 or more, list only the first 3 and add “et al.” Abbreviate journal titles according to *Index Medicus* style, which is used in MEDLINE citations.

Jeffery RW, Wing RR, Sherwood NE, Tate DF. Physical activity and weight loss: does prescribing higher physical activity goals improve outcome? *Am J Clin Nutr* 2003;78:684-9.

3) Corporate author

National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. *Circulation* 2002;106:3143-421.

Books and other monographs

4) Personal authors

Shils M, Shike M, Olson J, Ross AC. *Modern nutrition in health and disease*. 9th ed. Baltimore: Lippincott Williams & Wilkins, 1998.

5) Committee report or corporate author

National Research Council. *Recommended dietary allowances*. 10th ed. Washington, DC: National Academy Press, 1989.

Food and Nutrition Board, Institute of Medicine. *Dietary reference intakes for vitamin C, vitamin E, selenium and carotenoids*. Washington, DC: National Academy Press, 2000.

6) Chapter in book

Young VR, Tharakan JF. Nutritional essentiality of amino acids and amino acid requirements in healthy adults. 2nd. ed. In: Cynober LA, ed. *Metabolic and therapeutic aspects of amino acids in clinical nutrition*. Boca Raton, FL: CRC Press, 2004:439-70.

7) Agency publication

US Department of Agriculture, US Department of Health and Human Services. *Nutrition and your health: dietary guidelines for Americans*. Washington, DC: US Government Printing Office, 2000. [USDA Home and Garden Bulletin no. 232.]

Internet references

8) Website

National Center for Health Statistics. National Health and Nutrition Examination Survey. Version current 1 October 2003. Internet: <http://www.cdc.gov/nchs/nhanes.htm> (accessed 13 October 2003).

9) Online journal article

Sinha A, Madden J, Ross-Degnan D, Soumerai S, Platt R. Reduced risk of neonatal respiratory infections among breastfed girls but not boys. *Pediatrics* [serial online] 2003;112:e303. Internet: <http://pediatrics.aappublications.org/cgi/content/full/112/4/e303> (accessed 14 October 2003).

Tables

Tables must be included in the text file, and each should appear one per page. Remember to use **double-spacing**. Number tables consecutively with Arabic numerals (do not use 1A, 1B, etc) and supply a brief descriptive title for each. Give each column a short or abbreviated heading. Place explanatory matter in footnotes, not in the heading or table title. Each table should contain enough detail (including statistics) that the table is intelligible without reference to the text. Explain in footnotes all nonstandard abbreviations that are used in the table. Commonly used approved abbreviations (*see* the section of the same name below) may be used without explanation. Additionally, explanations are not needed for ANOVA, BMI, F (females), and M

(males). For footnotes, use superscript Arabic numerals. For reporting results of statistical analyses, superscript letters can be used if explaining the results in the usual manner would be too complicated (*see* a recent issue of the *AJCN* for examples). The first appearance in a horizontal row determines the order of the footnotes. Identify statistical measures of variation, such as SD and SE. **Omit internal horizontal and vertical rules**. Cite each table in the text in consecutive order. Use boldface for the first mention of each table. If you use data from another published source, acknowledge the source fully. Number references in tables according to the location of the first citation of each table in the text.

Figures

Cite each figure in consecutive order in the text. Use boldface for the first mention of each figure. Spell out the word “Figure”; do not use “Fig.” If a figure has been published, acknowledge the original source and submit written permission from the copyright holder to reproduce or adapt the material in print and electronic format. Except for documents in the public domain, permission is required from the copyright holder, regardless of authorship or publisher.

Legends for all figures should be typed with double-spacing on a separate page (not on the figures themselves). Each legend should contain enough detail, including statistics, to make the figure intelligible without reference to the text. Explain all nonstandard abbreviations used in the figure (*see* below for list of standard abbreviations under “Units and Abbreviations”). When symbols, arrows, numbers, or letters are used to identify parts of the figures, identify and explain each one clearly in the legend. Explain internal scale and identify the method of staining in photomicrographs.

Lettering and symbols must be large enough to be readable when the figure is reduced to 1 column width (<8.5 cm) or, in rare cases, to 2 column widths. The use of color will be evaluated for each figure on an as-needed basis, and the author must pay an extra charge if color is used. Reprints of articles with color figures will be billed at a higher charge because of the additional costs of printing color. Do not use 3-dimensional figures unless necessary. When labeling axes, capitalize only the first word and proper nouns; use lowercase letters for the remaining words and put units in parentheses.

Supplemental material

Supplemental material may be included with manuscript submissions. All supplemental data should be clearly labeled either as “Supplemental Data for Reviewers Only” or as “Online Supplemental Material” if it is submitted for online publication only in *The AJCN*. Supplemental files for upload may include articles published/in press elsewhere, reports or technical briefs related to manuscript submission, figure source files, questionnaires, permissions, videos, etc. Online Supplemental Material (OSM) is not edited before being posted online.

MANUSCRIPT DIGITAL FILES

Initial manuscript submissions

Prepare your manuscript, including tables, in Word 6.0. (Please note: the Word 2007.docx format is not accepted.) Tables must be included in the text file; do not submit tables in separate files. Submit each figure in a separate file. Preferred formats for image (figure) files are PDF, TIFF, or EPS. Files must conform to the minimum-resolution specifications listed below (*see* Image resolution). If you wish to include OSM (*see* Supplemental material) with your submission, it should be clearly labeled and included at the end of the manuscript file, after the references, tables, and figures. OSM pages must be marked with an “Online Supplemental Material” header on each page. Online-only figures and tables should be labeled “Supplemental Figure 1,” “Supplemental Table 1,” etc.

Revised manuscript submissions

Submit manuscript text, including tables, in a Word 6.0.doc file (please note: the Word 2007.docx file format is not accepted); tables must be included in the text file; do not submit tables in separate files. Submit each figure in a separate file. Preferred formats for image

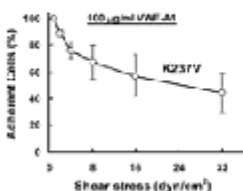
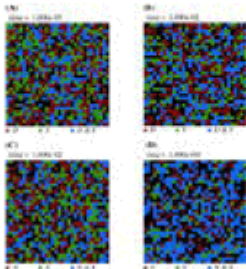
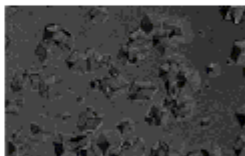
(figure) files are PDF, TIFF, or EPS. Files must conform to the minimum-resolution specifications listed below (*see* Image resolution). OSM should be included at the end of the Word file, after references, tables, and figure legends. Figures that are part of the regular manuscript submission and not part of OSM must be uploaded as separate files. OSM pages must be marked with an “Online Supplemental Material” header on each page. Online-only figures and tables should be labeled “Supplemental Figure 1,” “Supplemental Table 1,” etc. **In addition to including OSM at the end of the manuscript file as indicated above, upload the OSM in Word format as supplemental file(s) in the upload area.** OSM files will not be edited; therefore, please be sure that *The American Journal of Clinical Nutrition* format is used and that the files are accurate.

Formatting

Microsoft PowerPoint (PPT) and Word (DOC) files can be acceptable if properly prepared and submitted in their native format. When creating print-quality files in MS Office applications, follow these general guidelines:

Image resolution

Files at publication size must conform to the minimum-resolution specifications listed in the figure below.

Line art	Combination Halftones (grayscale or color images and type)	Halftones (grayscale or color with no type or lettering)
		
1000 dpi	600 dpi	300 dpi

Fonts

It is recommended to use standard fonts in order to avoid potential problems with font substitution or embedding problems. Acceptable fonts include Arial, Helvetica, Times Roman, Symbol, Mathematical PI, and European PI. All other fonts, if not embedded, may be replaced, resulting in data loss or realignment.

Color space

All digital art submitted, including black and white figures, must be bitmap (Monochrome), grayscale, RGP, or CMYK. Color files should be supplied in RGB color whenever possible and should have an ICC profile applied. RGB best utilizes the color projection capabilities of computer display devices and has become the standard color space for displaying images for the online journal. Authors are strongly encouraged to submit color figures in RGB format. Note that the RGB color space is significantly larger than the process CMYK color space. Therefore, depending upon the content of the image, color shifts may occur when converting to CMYK and appear in print if colors in the original image are outside the process CMYK gamut.

1) Do not use pattern or texture fills in graphics. Instead use solid fills or percentage screens that will be effectively converted to vector images during file conversion.

2) Artwork placed with any MS Office application should be of acceptable minimum resolution for print production (*see* “Image resolution”).

3) When inserting pictures or images into files, be sure to select “insert” and not “insert link,” which will not properly embed the hi-res image into the MS Office file.

4) Do not reduce or enlarge the images after placement within the MS Office file. Otherwise the image quality will be affected.

5) A separate file should be submitted for each figure. Make sure that any multi-panel figures (i.e., figures with parts labeled A, B, C, D, etc.) are assembled into one file. Rather than sending four files (Figure 1A, Figure 1B, Figure 1C, Figure 1D), the four parts should be assembled into one piece and supplied as one file.

Additional information on preparing digital art files

For more information regarding Digital Art Preparation and Submissions, *see* http://dx.sheridan.com/guidelines/digital_art.html. Please note the following:

1) Each figure file should be clearly identified by a figure number and panel letter, if appropriate, in the space provided on the file upload screen.

2) If a figure is very small in the system-generated PDF file, the resolution of the figure file was not high enough. A higher resolution figure should be uploaded before the PDF is approved.

3) **Tables must be included in the text file:** do not submit tables in separate files.

4) To check/preflight your digital art files before submission, *see* <http://dx.sheridan.com/onl/rgb/>.

Authors are requested to create and keep high-resolution print copies of the figures, in the event that they are needed for publication purposes.

UNITS AND ABBREVIATIONS

Use only standard abbreviations. Consult the following sources for standard abbreviations: *Scientific Style and Format* and *Standard for Use of the International System of Units (SI): the Modern Metric System* (American Society for Testing and Materials. IEEE/ASTM SI 10-1997. West Conshohocken, PA: ASTM, 1997) or www.ieee.org/web/publications/PSPB/index.html. Avoid abbreviations in the title, and avoid the use of abbreviations for single words. The complete phrase or expression should precede the first use of an abbreviation in the text unless it is a standard unit of measurement, chemical compound preceded by a digit, or one of the following standard abbreviations: ADP, AIDS, AMP, ATP, DMEM, DNA, EDTA, eg, EGTA, GDP, GTP, HCl, HDL, HEPES, HIV, HPLC, ie, LDL, ln, MEM, MOPS, NAD, NADH, NADP, NADPH, RNA, RPML, tris, and VLDDL.

Abbreviations for statistical terms

coefficient of correlation, sample, r
coefficient of multiple correlation, R
coefficient of variation, CV
confidence interval, CI
degrees of freedom, df
mean, \bar{x}
not significant, NS
number of observations, n
probability, P
standard deviation, SD
standard error of the estimate, SEE
standard error of the mean, SEM
variance ratio, F

Metric units are required and the use of the International System of Units (SI units) is optional. For a comprehensive listing of SI conversion factors, consult *SI Units for Clinical Measurement* (Young DS, Huth EJ. Philadelphia: American College of Physicians, 1998), *Am J Clin Nutr* 1998;67:166–81 or *J Nutr* 1990;120:20-35. Dosage forms and dietary ingredients may be expressed in gram or mole quantities. Energy may be expressed in kilocalories or joules; the conversion factor for converting kilocalories to kilojoules is 4.184. Do not report energy in Calories with a capital C; use kcal, MJ, or kJ instead. Temperatures should be reported in degrees Celsius. Blood pressures should be reported in millimeters of mercury. Use of katal to report enzyme activity is optional.

Commonly used approved abbreviations

Standard units of measurement

ampere, A liter, L
becquerel, Bq meter, m
coulomb, C minute, min
curie, Ci mole, mol
day, d month, mo
degree Celsius, °C ohm, Ω
farad, F pascal, Pa
gram, g second, s
hertz, Hz sievert, Sv
hour, h volt, V
joule, J watt, W
katal, kat week, wk
kelvin, K year, y
kilocalorie, kcal

Acceptable standard units

length: m, mm, μm
area: m^2 , mm^2 , μm^2
volume: L, mL, μL , pL
mass: kg, g, mg, μg , ng, pg
mass concentration: kg/L, g/L, mg/L, $\mu\text{g/L}$
substance concentration: mol/L, mmol/L, $\mu\text{mol/L}$, nmol/L

Unacceptable units

length: not acceptable: in, ft, yd, Å, m μ
area: not acceptable: sq in, in², μ^2
volume: not acceptable: pint, gallon, cc, ccm, λ , μL
mass: not acceptable: oz, lb, gr, gm, gms, mgm, mgms, mgs
mass concentration: not acceptable: mg %
substance concentration: not acceptable: M, N

Combining prefixes

tera- (10^{12}), T micro- (10^{-6}), μ
giga- (10^9), G nano- (10^{-9}), n
mega- (10^6), M pico- (10^{-12}), p
kilo- (10^3), k femto- (10^{-15}), f
milli- (10^{-3}), m atto- (10^{-18}), a

NOMENCLATURE

In general, the *AJCN* follows the nomenclature policies of the IUPAC-IUB Joint Commission on Biochemical Nomenclature. The vitamin nomenclature is summarized at *J Nutr* 1990;120:12-19, and the amino acid nomenclature is summarized at *J Nutr* 1987;117:15. Both articles can be accessed at <http://jn.nutrition.org>. Authors are responsible for ensuring that their terminology conforms with these policies. For guidelines on gene and protein nomenclature, authors should consult the following websites:

<http://www.informatics.jax.org/> (mouse, rat, and chicken),
<http://rgd.mcw.edu/> (rat),
<http://www.genenames.org/> (human and other species), and
<http://au.expasy.org/> (proteins).

As recommended by the American Society for Microbiology, the spelling of bacterial names should follow the *Approved Lists of Bacterial Names (Amended) & Index of the Bacterial and Yeast Nomenclatural Changes* (V. B. D. Skerman et al. ed., ASM Press, Washington, DC, 1989) and the validation lists and notification lists published in the *International Journal of Systematic and Evolutionary Microbiology* (formerly the *International Journal of Systematic Bacteriology*). Further information on currently approved bacterial names can be found at: Bacterial Nomenclature Up-to-Date (http://www.dsmz.de/microorganisms/main.php?contentleft_id=14) and at List of Prokaryotic Names with Standing in Nomenclature (<http://www.bacterio.cict.fr>). If authors must use a name that does not have standing in nomenclature, the name should be enclosed in quotation marks in the title, when appropriate, and at its first use in the abstract and the text. Correspondingly, an appropriate statement concerning the nomenclatural status of the name should be made in the text.

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