Required Format for an Article Submitted to the
Journal of Applied Biomechanics

Failure to follow the JAB guidelines could result in the rejection of your manuscript.

These guidelines are formatted here to resemble a manuscript so as to provide an easy reference.

Before submitting, be sure to review this entire document and also the requirements found at the journal’s webpage titled “For Authors.”

Organize your manuscript’s sections in the following order, using continuous line numbers throughout:

1. Response to reviewers: If your manuscript is a revision, detail the changes in the manuscript where appropriate by citing line numbers.
2. Title page
3. Abstract and keywords
4. Introduction, Methods, Results, Discussion
5. Collegial and institutional acknowledgments, at your discretion (also funding sources)
6. References
7. Tables
8. Captions for the figures
9. Figures
The Title Page: Type the date and then the manuscript number, with R-suffix for revisions, such as follows.

January 1, 2014
JAB_2012_2169.R2

Accurate, Complete, and Specific Titles Identifying the Main Topic or Finding Are Best

Author names: Please give the spelled-out first name (given name) and then the surname (family name) followed by a superscripted number that matches that name to an affiliation, which consists of department; institution or corporate name; and city, state/region, and country—all in that order. For example,

Name Surname,1 Name Surname,1 and Name Surname2,3

1Department, Institution, Town, State, Country; 2Department, Institution, Town, State, Country; 3Department, Institution, Town, State, Country

Funding: List the sources of funding for the work reported in the manuscript.

Conflict of Interest Disclosure: State any relevant financial conflict. If there are none, so state.

Correspondence Address: Provide the name and contact information for the corresponding author.

Running Title: If desired, provide a brief title of no more than six words.

[Insert a Page Break here]
The Abstract Page:

Abstract

The Abstract is limited to 200 words. Do not use subheadings in the abstract or elsewhere. In the Abstract, describe your motivation, purpose, methods, and results, and end with a summary.

After the abstract, you **must** provide three to five key terms—all in lowercase and separated with commas—that do not already appear in the title, but that help describe your article, such as in the following:

**Keywords:** style, punctuation, editing, *JAB* authors, Le Système international d’unités

**Word Count:** Using Microsoft Word, give the word count for only the main body of your manuscript; *do not include the references*. Original Research manuscripts must not exceed 4,000 words (and no more than 8 figures). Technical Notes must not exceed 2,000 words (and no more than 4 figures).

*Insert a Page Break here*
Introduction

The quality of the reviews that authors receive is enhanced when the submitted article complies with the manuscript format required by the *Journal of Applied Biomechanics (JAB)*. The purpose of this document is to provide a quick reference for formatting an article prior to submission to *JAB*. This document should be used in conjunction with the *JAB* Author Instructions. The preferred style and usage authority for *JAB* authors and editors is the 10th edition of the *AMA Manual of Style*. For insight into how authors should compose their research papers, a free article by Brand and Huiskes is a good resource.¹

The present PDF document illustrates the superscripted numerical format of in-text citations, which are numbered in the order of appearance. The References section herein, in AMA style, illustrates the format for journal articles, books, and chapters within books.²–¹⁰

The Introduction of your article concludes with a statement of the purpose and/or hypothesis. In general, manuscripts with no testable hypothesis, but that make an important contribution, should be cast as a Technical Note. Manuscripts submitted as Original Research will almost exclusively state a testable hypothesis or question.

Methods

Begin your Methods with a description of your sample size, and any institutional approval obtained in order to conduct the described experiments. If you proposed a question or hypothesis in the Introduction, conclude the Methods section with text describing your statistical analysis.

Use Times Roman 12-point font throughout the manuscript. All lines should be double-spaced and right/left justified. The margins on 8.5 × 11 paper should be 1 inch (or 6 picas) on all
sides. Be sure that all lines are numbered consecutively (continuously) throughout the manuscript. To begin a paragraph, indent by pressing the Tab key.

Here are suggested approaches to ensuring that your mathematical expressions are readable in *JAB*—ScholarOne Manuscript’s PDF file, which is the one provided to the reviewers. The text and tables of your submission must be in Microsoft’s Word (.doc or .docx) format, and, for mathematical expressions, Design Science’s MathType works well with Word and is compatible with postacceptance journal-production procedures. Therefore, whenever possible, use MathType especially for displayed equations. However, in ordinary text, please type in single variables and/or symbols by inserting characters from Word’s Symbol font (e.g., $\alpha$, $\omega'$, or $\Delta_{ve}$).

Any program used to generate equations must render its equations (image formats) at a high resolution of at least 300 pixels per inch (ppi).

All manuscripts must be written in English, with attention to concise language, a logical structure and flow of information, and correct grammar. We appreciate that some of our authors do not speak English as their first language and may need assistance to reach the standards required by the journal. In addition, some younger authors may not be experienced in scientific writing styles. Since manuscripts that fail to meet the journal’s writing standards **will not** be sent out for review, such authors should ensure that they seek assistance from native English speakers and/or experienced colleagues prior to submitting their paper. Many journals acknowledge the existence of companies which offer professional editing services. An example of such a service can be found at [http://www.aje.com/](http://www.aje.com/). This information does not constitute endorsement of this service. Use of an editorial service is at the discretion and cost of the authors, and will not guarantee acceptance for publication in *JAB*. 
Submitted articles that do not comply with these style and format guidelines will be returned to the author without review. This example manuscript, or quick reference, supersedes previous guidelines.

Results

Begin each paragraph in the Results section with a topic sentence that states a key result. Each topic sentence should correspond to a specific question asked or a hypothesis posed. The text following the topic sentence provides the substantiating information. Do not repeat methodology.

To report \( P \) values, use three decimal places for exact values, without a leading zero. For \( P \) values less than .001, use \( P < .001 \). The tradition of reporting values as \( P < .10, P < .05, \) and so on was necessary when only limited tables of critical values were available. (However, for clarity in tables, the \( P < \) notation might be desirable.)

References to Figures and Tables in the text should be given in parentheses (Table 1).

Stating that “data can be found in Table X” is not the required format.

Use *Le Système international d’unités* (SI) and its spacing rules for all numbers and units. These rules generally coincide with those of the *AMA Manual*. In regards to numbers and units, use numerals (ie, 0, 1, 2, \ldots) followed by a space with the standard abbreviations for all units of measure. Refer to the comprehensive list in the *AMA Manual*.

Examples of correct usage, including the capitalization and spacing, are as follows:

- \( \text{N m or N} \cdot \text{m, for a newton meter; Pa s or Pa} \cdot \text{s, for a pascal second} \)
- \( \text{m/s or m} \cdot \text{s}^{-1}, \text{for a meter per second} \)
- \( \text{L for a liter in all situations: mL, mmol/L, and similar} \)
- \( \text{A space is *always* used to separate the unit from the number—as in the phrase “0.4 km} \cdot \text{h; 0.995 W; and age, 27.7 ± 1.7 y”—even when used in a modifying} \)
context: “the instrument applied a 2.5 MPa stress to the tissue” (no hyphen, or
dash, between 2.5 and MPa).

- Use the exponent style for multiple units, rather than the solidus (slash) style
  without parentheses: Use –21.25 J·kg⁻¹·m⁻¹ instead of –21.25 J/kg/m.

Discussion

Begin your Discussion by reiterating your important question(s) and the primary finding(s). Next, it is typically best to describe the limitations of your study. The remaining text of the Discussion should place your findings in the context of the literature. Conclude with a summary paragraph. Do not use “Conclusions” as a subheading. Do not provide any comments directed toward future research.

To reiterate, the usefulness of the reviews that authors receive is enhanced when the submitted article complies with the manuscript format required by the Journal of Applied Biomechanics. The purpose of this document has been to provide a quick reference for formatting an article for submission to JAB; however, please be familiar with the JAB Author Instructions. Even more detail, along with explanations and helpful examples—all widely applicable to many facets of international scientific research and its presentation—are given in the AMA Manual of Style. Copies are commonly found in university or clinic libraries. Some freely available summaries of AMA style can be located with ordinary Internet search engines.

Acknowledgments

At your discretion, provide acknowledgments, in addition to those for funding, which are to be stated on the Title Page.
References


Table 1

Provide a brief one- to two-sentence table title here, mean (SD). Details should go in the text or in the table footnote, and not in this title.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unaffected (N = 20)</th>
<th>Affected (N = 17)</th>
<th>Control (N = 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td>63.9 ± 7.3</td>
<td>65.0 ± 6.9</td>
<td>66.2 ± 6.9</td>
</tr>
<tr>
<td>Gender, male/female</td>
<td>14/6</td>
<td>13/4</td>
<td>14/6</td>
</tr>
<tr>
<td>MVC force (N/kg)</td>
<td>4.6 ± 1.2*</td>
<td>3.0 ± 1.3†</td>
<td>5.4 ± 1.5</td>
</tr>
<tr>
<td>Lesion type, ischemic/hemorrhagic</td>
<td>9/11</td>
<td>8/9</td>
<td>—</td>
</tr>
<tr>
<td>Affected side, left/right</td>
<td>6/14</td>
<td>5/12</td>
<td>—</td>
</tr>
<tr>
<td>Years since stroke</td>
<td>2.0 ± 3.4</td>
<td>2.1 ± 3.6</td>
<td>—</td>
</tr>
<tr>
<td>FMA motor score</td>
<td>—</td>
<td>26.1 ± 6.9</td>
<td>—</td>
</tr>
<tr>
<td>FMA sensory score</td>
<td>—</td>
<td>7.5 ± 2.7</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. MVC force, maximum voluntary contraction force; FMA score, Fugl-Meyer stroke assessment scores.

*P < .05, significant difference between affected.

†P < .05, significant difference between control subjects.

Tabular material should not duplicate the text. Explanatory items should be given in footnotes below the table. Tables must be concise and no larger than approximately 15 cm (6 inches) × 23 cm (9 inches), including the table title and footnote, if intended to fit on a single printed page. Tabular material must be formatted using Microsoft Word’s table-building functions, with rows, columns, and cells, and not with tabs, spaces, and paragraph breaks.
Figure Captions

**Figure 1** — Provide a caption that describes a fact or finding depicted in the figure. Define all nonstandard abbreviations or acronyms used in the figure. The caption should be as short as possible, and *full explanations should be given in the text.*
Figures

It is unnecessary and undesirable to insert figures into your MS Word manuscript. Instead, upload each of them at JAB–ScholarOne Manuscripts. Figures are limited to a total of eight. Each one must be no larger than approximately 15 cm (6 inches) \( \times \) 20 cm (8 inches), not including the caption. Importantly, the size of any text appearing in your figures must be easily readable, and be in direct proportion to the size of the figure’s elements. Ideally, all SI and other standard units should be styled and used just as in the text. In bar graphs, the use of stripe patterns, cross-hatching, or solids (black or white) is best, and shades of gray should be avoided. Use thick (e.g., 1 point in width) black solid lines throughout for best reproducibility.

Figures may certainly be created in MS Word, but never paste or import a figure from other software into Word. The preferred file format is high-resolution EPS, but high-resolution JPEGs or TIFFs at 300 ppi, are also acceptable, as are high-resolution PDFs, and all should be uploaded to JAB–ScholarOne Manuscripts as separate files. Be sure to clearly identify each figure by including its number and the corresponding author’s name within the file name.

Only if necessary to convey meaning, color figures can be published at a cost to the author of $600 per page in the print version. Likewise, only if necessary, color figures may be used in JAB’s electronic version but at no cost to the author (the corresponding print figures will be in black & white, or grayscale).

Motion picture imaging (videos, movies) may be submitted for display as part of JAB’s electronic version.
1. Your detailed response should precede the Title Page.

2. On the Title Page, write the JAB submission number followed by “.R1” for a first revision, “.R2” for second revision, and so on.

3. Respond to every concern listed by the reviewers, after reiterating the concern. State specifically (i.e., using line numbers) where in the manuscript you revised the text, table, and/or figures in response to each reviewer’s concerns. If you chose not to revise the manuscript on a particular point, clearly state so and why.

4. Revised manuscripts that do not include detailed responses will not be considered for further review.

5. Do not upload a version of the manuscript with substantial highlighted changes.

6. Be sure to preview the entire PDF file created by the JAB–ScholarOne system before finishing each submission or revision!
The criteria on which manuscripts submitted to the Journal of Applied Biomechanics (JAB) are assessed during the blind peer review process include (1) the adherence to accepted scientific principles and methods, (2) the significant or novel contribution of the work to the area of biomechanics, (3) the clarity and conciseness of the writing, and (4) the interest to the readership.

For the word count of all article types, the limits apply only to the main body of the article; do not include the references.

Original Research. Original Research articles present the results of a hypothesis-driven study or, in some cases, a descriptive study, the results of which are considered novel and important. Original Research articles should not exceed 4,000 words or include more than eight figures.

Technical Note. Technical Notes are short articles that present results related to a new or modified method or instrument, or an important experimental observation. Technical Notes should not exceed 2,000 words or include more than four figures.

Reviews. Reviews are critical and inclusive presentations of important aspects of biomechanics. The role of Review articles in the Journal of Applied Biomechanics is to provide a stimulus for further systematic biomechanical inquiry on a particular topic of scientific and/or clinical importance. This requires that a presumably large body of accumulated literature is summarized so as to illuminate gaps in the state of knowledge. These gaps can be revealed by identifying conflicting evidence, problems borne of methodological disparities and/or inadequacies, the influence of invalid or unproven assumptions, and the potential for alternative interpretations. Collectively, these gaps should lead to establishing explicit and testable hypotheses. Such reviews should be forward looking and should not merely report the current state of the art. Please e-mail Editor-in-Chief J.J. Trey Crisco (joseph_crisco [at] brown.edu) if you are interested in submitting a Review article for consideration. Reviews may be up to 6,000 words in length and include no more than eight figures.

Target Articles. Target Articles present a summary of current scientific thought from the unique perspective of an experienced scientist on a matter of significance to the field of biomechanics. Invited responses to the Target Article and the author’s rebuttal are normally published along with the Target Article.

Proceedings. The publication of symposia or workshop proceedings is solicited by the JAB editorial board members. In addition, authors may directly contact the editor-in-chief (e-mail: joseph_crisco [at] brown.edu) regarding the suitability of symposium or workshop manuscripts.

Book Reviews. Book Reviews up to 1,000 words in length are welcome.

Manuscript Preparation. It is mandatory that authors follow an established style manual when preparing a manuscript. And, as of January 1, 2012, JAB authors follow the 10th edition of the AMA Manual of Style. Manuscripts will likely not enter peer review if they do not follow the AMA Manual of Style. Copies can be found in most university libraries and bookstores. Some abridged versions are available via the Internet at no cost. The AMA Manual of Style is published in hardcover and as an online subscription, and each version has its Web site, via the publisher, Oxford University Press. The Manual of Style uses numbered references, and authors are advised to use software to assist in reference preparation: for example, Reference Manager or Endnote.

The AMA Manual of Style is published expressly for authors of articles submitted to the American Medical Association’s journals, so not all sections of the Manual need be consulted. Therefore, the essential sections for JAB authors are as follows, and other JAB particulars are described next.

References, pp. 39–79
Tables and Figures, pp. 81–121
Style, pp. 315–380
Abbreviations, pp. 520–525
Math, pp. 907–913

All manuscripts must be written in English, with attention to concise language, a logical structure and flow of information, and correct grammar. We appreciate that some of our authors do not speak English as their first language and may need assistance to reach the standards required by the journal. In addition, some younger authors may not be experienced in scientific writing styles. Since manuscripts that fail to meet the journal’s writing standards will not be sent out for review, such authors should ensure that they seek assistance from native English speakers and/or experienced colleagues prior to submitting their paper. Many journals acknowledge the existence of companies that offer professional editing services. An example of such a service can be found at http://www.aje.com/. This information does not constitute endorsement of this service. Use of an editorial service is at the discretion and cost of the authors, and will not guarantee acceptance for publication in JAB.

A numeral will always accompany an abbreviated unit of measure. For the correct abbreviations to use, see the Système international d’unités at http://www.bipm.org or at http://physics.nist.gov/cuu/pdf/sp811.pdf.

As with other U.S. publishers, the authoritative reference texts for spelling are the current editions of Merriam-Webster’s Collegiate Dictionary and Dorland’s Illustrated Medical Dictionary. The Chicago Manual of Style is also consulted.
Ten Important Rules for Authors.

1. Always use commas and semi-colons in series to separate the items. The comma is the mandatory first-order separator, and the semi-colon is reserved to function only as the second-order separator, as in, “sports, exercise, and physical activity; randomized, double-blind, controlled trials; and enthusiasm, organization, and commitment...”

   Always include the comma or semi-colon, as appropriate, before the conjunction word (and, or, but).

2. The semi-colon is used only to separate, and never to introduce.

3. The colon is used to introduce.

4. Capitalize only the very few kinds of words specified in the style manual, such as persons’ names. If in doubt, use lowercase.

5. Always use the SI units (with a few exceptions, eg, when other units are ubiquitous). Quantity and unit should always be separated by a space. No hyphens.

6. Use acronyms sparingly. Spell out a term at each instance if you use it only two to three times. Differentiate between abbreviations (usually lowercase letters) and acronyms (all capital letters). Always use the spelled-out form to begin a sentence. Once you introduce an acronym, keep using it and do not revert to use of the spelled-out term.

7. Always in text, parentheses always surround the brackets: ([ ]).

8. In math, always use the multiplication sign (×) or centered dot (⋅), but never the asterisk (except in computer languages). In regular text, type a space on both sides of all operators, or allow the math software to apply standard spacings. Separate the operations thus: { ... [ ... ( ... ) ... ] ... }

9. Leave no spaces before, between, and after any subscript or superscript.

10. Never use the Tab key for any purpose except to indent the first line of a paragraph.

All manuscripts must be submitted only in Microsoft Word format (not in LaTeX). For equations, MathType is recommended.

Please double-space the text, add line numbers, and organize it as shown in the JAB Example Manuscript. In the main text, headings should be unnumbered and limited to Introduction, Methods, Results, and Discussion.

Studies involving humans must include a statement regarding institutional approval of protocol and informed consent. Studies involving animals must include a statement regarding institutional approval and compliance with government regulations on animal welfare.

Following peer review, editorial decisions will be provided promptly. Upon acceptance, authors will be required to transfer the copyright for publication in JAB to Human Kinetics, Inc.

Figure Preparation. Always prepare your art in black & white and for print resolution. Save your figures from the native software, and never paste your figures into Microsoft Word. At the JAB–ScholarOne Manuscripts submission site, upload each figure as a separate file in high-resolution EPS, TIFF, or PDF. The JPEG format is acceptable only when of large size and high quality. The software program PowerPoint is usually suitable only for screen resolution and is thus not appropriate. Each figure should have a brief caption that is self-explanatory and that defines author-created acronyms or nonstandard abbreviations used in the figure. In the text, figures must be mentioned parenthetically (as in Figure 1) at least once. Figures should be professional in appearance and have clean, crisp lines that are not too thin. Figures must be no larger than approximately 16 cm (6 inches) in width by 21 cm (8 inches) in height, not including the caption, and any text must be proportionally sized for legibility. In bar graphs, stripe patterns, cross-hatching, or solids (black or white) are best; shades of gray should be avoided. Be sure to identify each figure by including its number and the corresponding author’s name within the file name.

Motion picture imaging (movies) may be submitted for display as part of JAB’s electronic version. Video format of the highest resolution is preferred.

Only if absolutely necessary to convey meaning, color figures can be published at a cost to the author of $600 per page in the journal’s paper version. Likewise only if necessary, color figures may be used in JAB’s electronic version but at no cost to the author (the corresponding print version will be in black & white or grayscale).

Table Preparation. Tabular material should not duplicate the text. Each table must be numbered, have a brief title, and be mentioned in the text parenthetically (as in Table 1) at least once. Tabular material must be formatted using Microsoft Word’s table-building functions, using cells, rows, and columns. Any author-created acronyms or other nonstandard abbreviations must be defined in a table footnote. Likewise, explanatory notes should be given in footnotes below the table.

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