The mission of the *Journal of the American Academy of Orthopaedic Surgeons (JAAOS)* is the dissemination of knowledge to improve the care of orthopaedic patients.

**MANUSCRIPT AND AUTHORSHIP POLICY**

- Presubmission approval of a proposal is required for review manuscripts (the Standard Review, Orthopaedic Advances, and Surgical Techniques article types). See page 2. Invited authors and research manuscripts do not need a presubmission proposal.
- *JAAOS* uses Editorial Manager® ([www.editorialmanager.com/jaaos](http://www.editorialmanager.com/jaaos)) for all proposal and manuscript submissions.
- Video: You are encouraged to submit video with audio to accompany your manuscript. See tables 1 through 3 below and the section on videos in the Checklists (page 9).
- Authorship: We require that the senior author take an active role in manuscript preparation and development. *Standard Review, Orthopaedic Advances, and Surgical Techniques* manuscripts are limited to 4 authors.
- If a contributor to your manuscript does not meet the criteria for authorship listed below, that author should be credited in an acknowledgment. Please add the person’s information along with a brief summary of the contribution into the Author Comments step during submission into Editorial Manager.
- No simultaneous submissions (to more than one publisher) or multi-part articles will be considered.

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*Note: Please submit your fully written research manuscripts (the Research article type) directly to Editorial Manager. A proposal is not required. Case Reports should be submitted to *JAAOS Global Research & Reviews* ([http://www.editorialmanager.com/jaaosglobal/default.aspx](http://www.editorialmanager.com/jaaosglobal/default.aspx)). The invited authors: Please log in to the Editorial Manager website, click “My New Invitations” in your author main menu, click “Agree to Submit,” and follow the on-screen directions.*
Authorship policy: Research (the Research Section of the Journal and JAAOS Global Research & Reviews) and Case Report (JAAOS Global Research & Reviews) 
(No limit to the number of authors, and authorship restrictions do not apply)

<table>
<thead>
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<th>Order of Authors</th>
<th>MD (or equivalent/ above, eg, DO, MBBS, PhD)</th>
<th>Resident or in Fellowship Traininga</th>
<th>Post-Residency Fellow of the AAOS</th>
<th>Other</th>
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<td>2nd, etc., Author</td>
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*a We do not permit dual first-author status.

Authorship policy: Standard Review, Orthopaedic Advances, and Surgical Techniques (the Review Section of the Journal) 
(The number of authors is limited to no more than four, and authorship restrictions apply)

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<thead>
<tr>
<th>Order of Authors</th>
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*a We do not permit dual first-author status.

- Authors who will complete residency or training fellowship within 6 months following submission may serve as corresponding authors and first authors.
- No more than one resident can serve as coauthor, and medical students are not allowed as coauthors.
- No more than two accepted proposals or manuscripts within a 1-year period will be allowed from any author.

• JAAOS requires all authors to meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship: [ICMJE Recommendations for authorship criteria (2013)](https://icmje.org/coi-policy)

• The lead author (listed first) may claim 10 AMA PRA Category 1 Credits directly from the American Medical Association (AMA) for publishing an article in JAAOS. The AMA requires a copy of a page from the published article that shows the name of the author listed first, the name of the journal, and the date published: [www.ama-assn.org/education/claim-cme-credit-ama](https://www.ama-assn.org/education/claim-cme-credit-ama)

**PRESUBMISSION APPROVAL**

Authors of Research manuscripts may submit fully written manuscripts at any time, without an invitation. Prospective authors of Standard Review, Orthopaedic Advances, and Surgical Techniques manuscripts must first submit a proposal, which will be reviewed by the JAAOS Editorial Board. If your proposal is approved, you will receive an invitation to submit the blinded manuscript. **Acceptance of your proposal DOES NOT guarantee acceptance of your manuscript.** It means only that your manuscript will be reviewed.

Submit all proposals for Standard Review, Orthopaedic Advances, or Surgical Techniques manuscripts to the JAAOS Editorial Manager website at [www.editorialmanager.com/jaaos](https://www.editorialmanager.com/jaosoas) by following these steps:

1. Prepare your proposal on the topic using this template.
2. Register in Editorial Manager or log in to your existing author account and click “Submit New Manuscript.”
3. From the Article Type drop-down menu, select “Manuscript Proposal” and proceed through the remaining screens.

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MANUSCRIPT SPECIFICATIONS AND COMPONENTS

IMPORTANT NOTE: All manuscripts submitted to JAAOS will undergo double-blind peer review. Please prepare your manuscript in a way that conceals the identities and affiliations of all contributing authors. Failure to submit an appropriately blinded manuscript will result in your manuscript being returned to you for correction. To assist in this process, please ensure the following:

- Remove any identifying information, including author names, from file names. If you are using Office 2007 or later, please use the Document Inspector Tool to remove only the document properties and personal information from the manuscript prior to submission. This process ensures that the document properties have been anonymized.
- Do not include any identifying information, including author names and affiliations in the body of the text.
- Remove references to funding sources from the body of the text.
- Do not include clinical trial or Institutional Review Board numbers in the body of the text.
- Do not include acknowledgments in the body of the text, please add this information in the “Author Comments” field when submitting your manuscript.
- Remove any affiliation related identifier from all figures and tables.

If you have received an invitation to submit a manuscript, the correct article type will be indicated when your manuscript is submitted. If your proposal has been accepted, you will receive an email with instructions for submitting your full manuscript. If you have not received an invitation, select the article type most appropriate for your content.

All manuscript submissions must include a Title Page, uploaded to Editorial Manager as a separate file. The Title Page should not be included in the word count. The title page should include the following information:

- Title of paper including a description of the type of study conducted.
- Full name of each author (first name, middle initial and last name) followed by each author's highest academic degree(s). Name of department(s) and institution(s) with which each author is affiliated and to which work should be attributed.
- Name, address, telephone number, fax number, and E-mail (if available) of author responsible for correspondence concerning the manuscript.
- Name, address, and telephone number of author to who requests for reprints should be addressed, or a statement that reprints will not be available from the author(s).
- Cite all sources of support for the work being reported, including grants, equipment, and drugs.
- A short running head of no more than 40 characters, including spaces, placed at the bottom of the title page.

Manuscripts that do not meet the specifications outlined in Table 1 will be returned to the corresponding author through Editorial Manager for changes.
<table>
<thead>
<tr>
<th>Article Type</th>
<th>Description</th>
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<th>Illustrative Material Limit</th>
<th>Reference Limit</th>
<th>Format</th>
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| Research Section: Manuscript       | Present retrospective or prospective studies that are clinical observational, interventional, or experimental. Format: Introduction, Methods, Results, Discussion | 300                 | 4,000          | 16 panels                   | 40              | Keywords (list 5 to 8)  
Title page  
Abstract (use structured headings: Introduction, Methods, Results, Discussion)  
Text with headings: Introduction, Methods, Results, Discussion  
References  
Figures and Figure legends (if applicable)  
Tables (if applicable)  
Video (if applicable) |
| Review Section: Standard Review    | Present a balanced approach to the current state of knowledge on a topic of interest to the practicing orthopaedic surgeon | 200                 | 4,000          | 16 panels                   | 40 (≥25% from past 5 years) | Keywords  
Title page  
Abstract  
Text (including Introduction and Summary)  
References  
Figures and Figure legends (if applicable)  
Tables (if applicable)  
Video (if applicable) |
| Review Section: Orthopaedic Advances | Provide current information on recent developments in orthopaedic surgery, technology, pharmacotherapeutics, and diagnostic modalities. Topics are not yet well represented in the literature. | 150                 | 2,250          | 6 panels                    | 20              | Keywords  
Title page  
Abstract  
Text  
References  
Figures and Figure legends (if applicable)  
Tables (if applicable)  
Video (if applicable) |
| Review Section: Surgical Techniques | Provide step-by-step details of new/innovative surgical procedures or substantial modifications of previously reported techniques. Provide video with audio to demonstrate specific steps. | 150                 | 4,000          | 8 panels                    | 30              | Keywords  
Title page  
Abstract  
Text (Use headings: Introduction, Indications, Contraindications, Pearls, Pitfalls, Summary)  
References  
Figures and Figure legends (if applicable)  
Table (if applicable)  
Video |

* Excludes abstract, references, and figure legend  
* Add the number of figure and table panels together to get the total. Count each multi-part figure separately, and multiply number of tables by 2 (eg, Figure 1A and 1B = 2 panels; one table = 2 panels; count appendices as tables). Note that a single illustration would not be broken up into multiple panels.  
* Upload as a separate file. The Title Page should not be included in the word count. The title page should contain the following information:  
  Title of paper including a description of the type of study conducted.  
  Full name of each author (first name, middle initial and last name) followed by each author's highest academic degree(s). Name of department(s) and institution(s) with which each author is affiliated and to which work should be attributed.  
  Name, address, telephone number, fax number, and E-mail (if available) of author responsible for correspondence concerning the manuscript.  
  Name, address, and telephone number of author to whom requests for reprints should be addressed, or a statement that reprints will not be available from the author(s).  
  Cite all sources of support for the work being reported, including grants, equipment, and drugs.  
  A short running head of no more than 40 characters, including spaces, placed at the bottom of the title page.
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*Level I. Diagnostic study = randomized controlled trial; testing of previously developed diagnostic criteria. Prognostic study = inception cohort study. Therapeutic study = randomized controlled trial. Economic study = computer simulation model. Level II. Diagnostic study = prospective cohort study; development of diagnostic criteria. Prognostic study = prospective cohort study; control arm of randomized trial. Therapeutic study = prospective cohort study; observational study with dramatic effect. Economic study = computer simulation model. Level III. Diagnostic study = retrospective cohort study; case-control study; non-consecutive patients; no consistently applied reference standard. Prognostic study = retrospective cohort study; case-control study. Therapeutic study = retrospective cohort study; case-control study. Economic study = computer simulation model. Level IV. Diagnostic study = case series; poor or non-independent reference standard. Prognostic study = case series. Therapeutic study = case series; historically controlled study. Economic study = decision tree over the short time horizon with input data from original level II and III studies and uncertainty examined by univariate sensitivity analyses. Level V. Diagnostic, prognostic, and therapeutic studies = mechanism-based reasoning. Economic study = decision tree over the short time horizon with input data informed by prior economic evaluation and uncertainty examined by univariate sensitivity analyses.
<table>
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<tr>
<th>Article Type</th>
<th>Abstract</th>
<th>Introduction</th>
<th>Body, References</th>
<th>Figures, Tables, Videos</th>
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<tbody>
<tr>
<td><strong>Review Section: Standard Review</strong></td>
<td>Reflect essential principles and information. Provide facts, conclusions, and outcomes; avoid “we discuss”. Be certain data agree with numbers and values in the text.</td>
<td>Present brief overview, background information, statistics, and history. Include rationale for importance, main points, information deficiencies, and/or differences of opinion.</td>
<td>Review pertinent literature. Use section headings (eg, Indications, Contraindications). Include, as applicable: controversy, treatment methods, basic science, authors’ preferred treatment, complications. Use generic names for drugs and devices. Include P values and correlation coefficients. Reiterate nature of problem, provide clear conclusion based on literature and author experience, suggest role for ongoing study and future directions. Limit 40 references (≥25% published within past 5 years). Include levels of evidence&lt;sup&gt;a&lt;/sup&gt;.</td>
<td>Line drawings, radiographs/other imaging scans, photos, algorithms. A succinct legend is required for each figure panel. Number each figure in order of citation in text. Include signed photo consent or remove/blur patient faces, institution identifiers, and manufacturer logos. Authors must obtain permission to reuse published figures and tables. Digital manipulation must not result in misrepresentation of the original image. Preferred image file formats: TIFF, EPS, or MS Office (DOC, PPT, XLS) files. High-resolution PDF files are also acceptable.</td>
</tr>
<tr>
<td><strong>Review Section: Orthopaedic Advances</strong></td>
<td>See above.</td>
<td>Present objective appraisals of recent or controversial techniques and new developments in orthopaedic surgery. Address current trends or advances of brief clinical experience and few documented studies.</td>
<td>See above. Limit 20 references. Include levels of evidence&lt;sup&gt;a&lt;/sup&gt;.</td>
<td>See above.</td>
</tr>
<tr>
<td><strong>Review Section: Surgical Techniques</strong></td>
<td>None.</td>
<td>Present brief overview, background information, statistics, and history. Include rationale for importance, main points, information deficiencies, and/or differences of opinion, surgical technique.</td>
<td>Use headings: Introduction, Indications, Contraindications, Surgical Technique, Pearls and Pitfalls, Outcomes. In the Surgical Technique section, use subheads Setup, Exposure/Approach, Technique, Closure, Postoperative Care/Considerations. Discuss anatomic and biomechanical considerations. Provide pearls and pitfalls in two bulleted lists. Limit 30 references. Include levels of evidence&lt;sup&gt;a&lt;/sup&gt;.</td>
<td>See above. Video is strongly recommended. Describe indications and contraindications of technique. No more than 5 to 10 minutes. Audio narration is required. Include title screen without identifying author, patient, or institution. Adhere to safety precautions and FDA guidelines for off-label use.</td>
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<sup>a</sup> **Level I.** Diagnostic study = randomized controlled trial; testing of previously developed diagnostic criteria. Prognostic study = inception cohort study. Therapeutic study = randomized controlled trial. Economic study = computer simulation model. **Level II.** Diagnostic study = prospective cohort study; development of diagnostic criteria. Prognostic study = prospective cohort study; control arm of randomized trial. Therapeutic
study = prospective cohort study; observational study with dramatic effect. Economic study = computer simulation model. **Level III.** Diagnostic study = retrospective cohort study; case-control study; nonconsecutive patients; no consistently applied reference standard. Prognostic study = retrospective cohort study; case-control study. Therapeutic study = retrospective cohort study; case-control study. Economic study = computer simulation model. **Level IV.** Diagnostic study = case series; poor or nonindependent reference standard. Prognostic study = case series. Therapeutic study = case series; historically controlled study. Economic study = decision tree over the short time horizon with input data from original level II and III studies and uncertainty examined by univariate sensitivity analyses. **Level V.** Diagnostic, prognostic, and therapeutic studies = mechanism-based reasoning. Economic study = decision tree over the short time horizon with input data informed by prior economic evaluation and uncertainty examined by univariate sensitivity analyses.

**MANUSCRIPT SUBMISSION**

If you received an invitation from Editorial Manager to submit a manuscript, follow these steps:

1. Go to [www.editorialmanager.com/jaaos](http://www.editorialmanager.com/jaaos), enter your username and password, and click “Author Login.” (If you have misplaced your login information, click the “Send Login Details” link on the Editorial Manager home page.)

2. From your Author Main Menu, click “My Accepted Invitations” and “Submit Invited Manuscript.” Proceed through the remaining screens, attaching your text/references/figure legends, figures, tables, videos, and author forms as separate files. All figures must be submitted as image files. Please do not embed figures in the body of your text or in a separate Word document.

3. When the PDF of your submission is ready, click “View Submission” and then “Approve Submission.”

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1. Go to [www.editorialmanager.com/jaaos](http://www.editorialmanager.com/jaaos)

2. Register in Editorial Manager or log in using your existing author account and click “Submit New Manuscript.”

3. From the Article Type drop-down menu, select “Research Section: Manuscript” and proceed through the remaining screens.

If you have any questions about the proposal or manuscript submission process, please contact Kyle Overturf at Kyle.Overturf@wolterskluwer.com.

**POLICIES AND GUIDELINES**

Authors must read the Academy’s guidelines and policies on:

- Mandatory disclosure of potential conflicts of interest
- Intellectual property and copyright
- AAOS Clinical Practice Guidelines
- AAOS Appropriate Use Criteria
Table 4: Intellectual Property, Public Funding, and JAAOS Article Citation

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
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</thead>
</table>
| Duplicative publishing and copyright              | **Text**

JAAOS uses iThenticate® to detect matching text across published works. If the similarity percentage of your manuscript is excessive, it will be returned to you.

**Images and Tables**

Provide complete bibliographic information for any previously published material you are submitting. Authors are responsible for obtaining permission to use previously published material. Be aware that images contained in a “free use” database may be copyrighted. When your material is published in JAAOS, it becomes the copyrighted property of the AAOS. You may still use this material for certain purposes. Contact the editorial office.

|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Funding from public entities                      | **NIH**

The corresponding author of a study prepared with funding from the National Institutes of Health is responsible for submitting the final peer-reviewed manuscript to the digital archive PubMed Central upon acceptance for publication. Such manuscripts are to be made accessible to the public on PubMed Central no more than 12 months after publication.

| JAAOS article citation                             | To cite an article that you have published in JAAOS, use the format below:


CHECKLISTS

Figures

Aim for clarity and simplicity, using words and numbers sparingly. Show ratio measures (such as odds ratios) on a logarithmic scale. Twenty tips for preparing figures can be found here.

Submit figures exactly as you would like them to appear in your article. Figures showing one extremity or joint are typically published as one column width (2.25 in); prepare them approximately this size. Figures such as full pelvic views are typically published as two column widths (4.5 in). See any issue of the journal for examples.

Number figures in the order they are discussed in the text. Do not insert labels on the images themselves. Instead, label the file name alphabetically to show the desired order (Figure 1A, Figure 1B, etc.). Panel figures should have the same scale for all axes.

The instructions below detail the requirements for production of figures. Authors are not required to adhere to these specifics for initial submissions, but for accepted papers authors will be asked to submit their final figures according to these instructions.

Creating Digital Artwork

1. Learn about the publication requirements for Digital Artwork: http://links.lww.com/ES/A42
2. Create, scan and save your artwork and compare your final figure to the Digital Artwork Guideline Checklist (below).
3. When you submit your final artwork files, please include the e-mail address of a person (an author or author’s artist) who can promptly respond to our artwork format queries over a 3-week period after your manuscript is accepted for publication.
Digital Artwork Guideline Checklist
Here are the basics to have in place before submitting your final digital artwork (post acceptance):

- Artwork should be saved as TIFF, EPS, or MS Office (DOC, PPT, XLS) files. High-resolution PDF files are also acceptable.
- Crop out any white or black space surrounding the image.
- Diagrams, drawings, graphs, and other line art must be vector or saved at a resolution of at least 1200 dots per inch (dpi). If created in an MS Office program, send the native (DOC, PPT, XLS) file.
- Photographs, radiographs and other halftone images must be saved at a resolution of at least 300 dpi. Any retouching of a photograph must be described in the figure legend.
- Photographs and radiographs with text must be saved as postscript or at a resolution of at least 600 dpi.
- If labels must be used, please use colors that clearly contrast with the image.

GIF files will not be accepted. Images downloaded from the Internet are generally not acceptable for print due to universally low resolutions, unless they are noted as being high-resolutions specifically designated for print quality.

Figure Legends
Provide brief legends for each figure. Symbols, abbreviations, and inset images must be defined in the figure or its legend. Incorporate figure keys into the legend rather than including them as part of the figure whenever possible. Please include a description for each panel (using A, B, C, etc) in the figure legend. If the figure is reprinted/adapted from another source, please provide a permission letter and include the source in the legend. If no language is provided in the permission letter, use the following sample: "(Reproduced/adapted with permission from Jones AB, Smith CD, Wilson EF: How to write a credit line. Journal of Figure Legends 2017;1[2]:5-12.)"

Resolution
Resolution will determine the ultimate clarity of your file. The key is to set resolution and file-type settings BEFORE creating/scanning the image. (The resolution can commonly be adjusted by referring to the Tools option in your given program.) Once saved, the resolution of a file cannot be increased again without distorting the proper print size of the image.

Lettering
Lettering should be the same font throughout all figures in the manuscript in the sans-serif typeface Helvetica, Medium, 8pt, sharp. Units, capitalization, etc, should follow JAAOS style (see www.jaaos.org and refer to issues of the Journal published in 2015 through 2017. Arrows, arrowheads, and other symbols should be black or white, depending which is most visible against the image in question and sized to be visible but not to obscure or overwhelm the image. Leaders and rules should be 2.25 px.

Do not rasterize or convert text to outlines.

Avoid headings on the figure. Heading information should appear in the figure legend. Label units of measure consistently with the text and legend. Follow the AMA Manual of Style for unit abbreviations.

For multi-panel figures, submit each part individually (eg, Figure 1A, Figure 1B, Figure 1C, Figure 1D), rather than as one block (eg, Figure 1ABCD). Similar panels should be consistent in size and uniformly set.

Supply a scale bar with photomicrographs.
Authors are responsible for obtaining from the copyright holder permission to reproduce previously published artwork.

Sizing
JAAOS will often reduce figures to the smallest size possible for reasons of space. Authors are encouraged to indicate the smallest possible size they think appropriate for their figures, but the journal reserves the right to make the final decision.

For guidance, the Journal's standard figure sizes are 2.25 inches wide (one column) and 4.5 inches wide (two columns). The full depth of a JAAOS page is 9 inches.

Authors should check (using a reducing photocopier) that, at the smallest possible size, lettering remains readable and lines are sufficiently heavy (but not too heavy) to print clearly. Line weights and strokes should be set between 0.5 and 1 pt at the final size (lines thinner than 0.5 pt may vanish in print). Do not rasterize or outline these lines if possible.

Color vs Black and White
Determine if the artwork should be presented in color or in black and white.
For black & white: Save in grayscale format.
For color: Save in RGB mode. RGB allows for a wider spectrum and a more accurate reproduction of fluorescent colors.

Arrangement of Parts
JAAOS will be guided by the authors’ suggested layout of parts within figures, but may rearrange parts if necessary. Authors should indicate essential layout features, for example particular alignments of panels within a figure. We value clear instructions from authors to help us lay out their figures.

Algorithms
The flow should be logical and complete. Text is centered in boxes with one idea or point. Hanging indents are used for boxes with more than one idea or option (eg, treatment option).

Label leaders and algorithm leaders (rules) to boxes should be 10 px when the document DPI is 1200. Arrowheads are inserted only when a rule leads to a box with an action, such as a surgical procedure. Arrowheads for algorithm rules are to be created with 800% width, 650% length at 10 px. If a need arises to have an "algorithm box" in an image at 300 DPI the box should be created with a 3 px contraction in Photoshop. Label leaders (rules) should be 2.25 at 300 DPI.

The use of digital media for image acquisition and processing introduces the potential for inadvertent distortion of data. To prevent such distortion, the following guiding principles should be used:

1. Data should neither be added to, nor removed from, an image by digital manipulation. Images gathered at different times or from different locations should not be combined into a single image, unless it is stated that the resultant image is a product of time-averaged data or a time-lapse sequence. Figures assembled from multiple images must indicate the separation of the parts by lines and described in the legend.
2. The use of touch-up tools, such as cloning and healing tools in Photoshop, or any feature that deliberately obscures manipulations, is unacceptable.
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TIPS FOR SEARCH ENGINE OPTIMIZATION

Search engine optimization (SEO) is the process of affecting the visibility of a website or web page on a search engine’s results page. Authors can play a decisive role in optimizing search results to make their articles more discoverable online.

Below are some useful writing tips to ensure that your article is visible and high-ranking in the search results of Google and other engines.
1. **Make the title of your article SEO-friendly**
The title of your article should be descriptive of its content and include keywords. Because only the first 65 characters (including spaces) are shown in Google search results, it is important to put your keywords within the first 65 characters of the title.

2. **Use headings**
Headings help readers as well as search engines like Google to better understand the structure and organization of your article. Be sure to include keywords and phrases in section headings where appropriate.

3. **Choose good keywords**
Appropriate keywords will help improve the visibility of your article via search engines. Keywords should accurately reflect the content of the paper. In crafting good keywords, think about your audience. Which words or phrases might a reader use to find the information in your article online using a search engine? You might also consider using sites such as Google Trends or Google Adwords to find out which search terms are most popular.

4. **Optimize the abstract**
In most cases, only the abstract of the paper will be “visible” to search engines. It is therefore important that the abstract accurately reflect the content of the entire paper by incorporating appropriate keywords and phrases throughout in a natural, contextual way.

5. **Stay consistent in your language**
In writing your paper, be sure to use terms and keywords in a consistent manner. Wherever possible, try to refer to these key terms in the same way they’ve been referred to in past online publications.

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When appropriate, cite your own or your co-authors’ previous publications. Such citations will factor into how search engines will rank your current and future work.

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