

Technical Style Guide for ACGIH Publications

**Compiled by ACGIH Staff
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1 Introduction

This Technical Style Guide is for authors of ACGIH publications. In this guide, you will find resources and reference material to help authors quickly resolve questions and problems that arise during the writing process.

This style guide is divided into the following sections. [Section 2](#) goes over the background of why this guide was created and the source of the style. [Section 3](#) is specific to all ACGIH publications besides those submitted to the *Journal of Occupational and Environmental Hygiene*. [Section 4](#) concerns literature searches. [Section 5](#) is a more detailed look at citations and bibliography management. [Section 6](#) is for the general formatting of tables and figures and their sources and attribution. [Section 7](#) directs authors to guidance for presentations. [Section 8](#) is a resource for formatting equations, mathematical expressions, and formulae in Microsoft Word and more dedicated math-heavy programs.

ACGIH staff retains the right to revise this style guide as needed. It is considered a living document that will grow with the needs of ACGIH. Suggestions for changes, additions, or deletions can be emailed to the editing team.

2 The Source of ACGIH Style

2.1 Background

Why does ACGIH need a house style? This is a great question, and all the ways to answer it lead back to one answer: to give the professional-level work the volunteers do a professional look and tone. Let's look at a scenario involving 3 presentations of the same equation, all in different fictitious chapters by fictitious authors but appearing in the same book.

As Author 1, let me introduce the equation here:

$$C + A = 2\left(\frac{4}{3}\right) \quad (1)$$

Where C is Cars, A is analog, and 2 means nothing.

In the next chapter, the author writes:

As Author 2, let me introduce the equation here:

$$C + A = 2 \left(\frac{4}{3} \right) \quad (2)$$

where: C=Cars, A=analog, 2=nothing.

The final author writes their equation as follows:

As Author 3, let me introduce Equation 1. Let me define the terms as C equals Cars; A equals Analog; 2 equals nothing. Thus,

$$C + A = 2 \left(\frac{4}{3} \right) \quad (3)$$

These 3 fake authors have used their own writing style and mathematical typesetting knowledge across chapters with 3 different results. These inconsistencies make for an editor's game of "spot the difference." An editor can make all equation formatting consistent by creating a fixed style. This example illustrates how a house style will create a professional look for ACGIH.

2.2 Sources for the Style

Primary sources for ACGIH style are the Council of Science Editors (CSE) and Chicago Manual of Style's (CMS) *Scientific Style and Format* (8th Edition), with *Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals* ("ICMJE Recommendations" previously known as the Vancouver style) and the *Guide for the Use of the International System of Units* by NIST used as subject-specific sources. When staff have questions, they will refer to one or more of these sources and, if needed, add a new guideline or rule to this style guide.

2.3 References and Sources in ACGIH Style

Cited references should result from a rigorous process that ensures the volunteer author adequately vetted all cited sources. If an author believes that information is important enough to include in a publication, it is equally important to review the original source of that information.¹ Ideally, references should comprise primary sources that are current and published in peer-reviewed journals. The ACGIH Technical Editor makes the final decision of what to include in the reference list. Please see [Section 4](#) and [Section 5](#) for more details.

3 Preparation of Publications

This section covers the specific requirements for authoring ACGIH publications and defines the expected workflow from start to finish.

[Section 3.1](#) addresses literature searches. [Section 3.2](#) outlines the usage of ShareFile and version control. [Section 3.3](#) covers the submission and review process. It outlines the expected interactions between volunteer authors and staff members at each stage of the process. [Section 3.4](#) concerns formatting. The last section, [Section 3.5](#), covers stylistic rules. Adherence to these rules will promote consistency across all publications and minimize additional editing by staff.

3.1 Literature Searches

The ACGIH Scientific Process and Research Manager, in collaboration with the authors, will conduct all literature searches. This method allows for consistency, considers ease of updating, and creates an essential record of search strategies. For publications requiring revision, a volunteer author may request an electronic, current copy from the Scientific Process and Research Manager.

Volunteer authors are encouraged to use EndNote for reference formatting since this is the software program ACGIH staff uses for all publications.

3.2 Version Control

The latest version of the draft under consideration is uploaded to ShareFile. Staff should be notified by the author when the draft is ready for review and action by the staff.

Revised publications sent by staff to volunteer authors will typically contain questions and comments to be addressed by the author. This version will continue to be built on through the review process.

For better version control, editors will use the restrict editing feature after copy editing. Any changes that need to be made will be shown in track changes. If any of the editor's changes are unacceptable, they can be indicated using the comments feature. The editors will review those changes and clean up the files before the layout stage. All changes and queries are thus documented for reference.

3.3 Submission and Review Process

All publications will go through the following process:

1. The volunteer author and ACGIH's Scientific Process and Research Manager collaborate on the literature review supporting the draft.
2. The volunteer author drafts the publication.
 - a. For publications other than Documentation
 - i. A point person is assigned to each chapter if there is more than 1 author.
 - ii. One person per committee is assigned to handle all drafts and communicate updates with staff.
 1. The assigned person collates edits made in the drafts.
 2. Commentary is discussed during meetings.
 - iii. The assigned person communicates to staff when the draft is ready for proofing.
3. Publications are passed to staff for review, including reference checking. If volunteer authors use EndNote or other bibliographic software, please pass along any .ris or other bibliographic file(s) to staff.
4. Publications are edited by staff.
 - a. Editing may include but is not limited to revisions of grammar, punctuation, consistency, references, source-checking, and formatting.
5. Edited files are returned to the author with comments and queries, if any.
 - a. Queries may include but are not limited to fact-checking, citation confirmation, and word choice.
6. The author responds to queries and returns the revised publication to staff.
7. Staff respond to queries and make final changes. The final version can be sent on the author's request with all changes made and queries answered, but it is unnecessary.

The process is designed for staff to assist the volunteer authors as much as possible while promoting efficiency, consistency, and accountability.

3.3.1 Publication Timeline

Once a publication is submitted to staff for proofing, return is dependent on the following:

Length of Documentation. A 7-page document with 5 primary sources and 11 indirect sources will take less time than a 38-page document with 44 primary sources. Staff review, create the bibliography, and verify citations at this stage.

Length of other publications. There are currently no page limits on the length of books, book chapters, or monographs. White papers should be limited to 30 pages, including references.

Format of reviewed publications. Publications will be sent back as a Word file with tracked changes and comments in the sidebar. Authors will have to make changes and responses using the version emailed to them, not a prior version.

Query response. An author will have a maximum of 14 days to respond to queries and is welcome to email staff at any point with questions or for help parsing requests. Staff would like only 2 rounds of this cycle. A quicker turnaround than 2 weeks is appreciated as this allows for timely publication.

If the author is in a bind. We understand and appreciate the amount of time spent and the level of detail volunteers provide when writing publications. If an author does not have time for the query stage or only has time for an initial pass regardless of remaining open queries, staff retains the right to make all changes necessary. These changes may include the following:

- Removing citations that cannot be verified.
- Removing or replacing figures that cannot be sourced or are copyrighted.
- Editing the text for clarity and consistency.

3.3.2 Errors

While the Editorial Team does its best to ensure that each publication goes to press error-free, sometimes mistakes happen. If you see an error, contact the Technical Editor with the publication name, page number, and a description of the error.

3.4 Grammar and Punctuation in Scientific Writing

Some general rules regarding scientific writing are outlined below. The examples are taken directly from the article entitled "Grammar and Punctuation in Scientific Writing," which appeared in the journal *Radiology*.²

3.4.1 Modifiers

It should be clear what an adjective (i.e., modifier) is modifying. Sentences often are written so that the adjective modifies the wrong noun or a phrase modifies a noun when it should be modifying a verb.

Modifiers should be placed as close as possible to the words they modify. Note the different meanings of the 3 sentences below:

1. *Only* the mammographic findings were positive in the 20 patients.
2. The mammographic findings were *only* positive in 20 patients.
3. The mammographic findings were positive in *only* 20 patients.

Sentences 1 and 3 have different meanings based on placement of the word "only," and sentence 2 is incorrect.

3.4.2 Which versus That

Use "that" to introduce a restrictive (i.e., required or essential) clause and "which" to introduce a nonrestrictive (i.e., nonrequired or nonessential) clause.¹

The fetal sonograms that were obtained at 24 weeks' gestation depicted all of the abnormalities.

The fetal sonograms, which were obtained at 24 weeks' gestation, were not available for interpretation.

The first sentence, "that were obtained at 24 weeks' gestation," is essential information: it makes clear that sonograms obtained at this point, as opposed to others obtained at another time, depicted the abnormalities. In the second sentence, only 1 set of sonograms was obtained; that they were obtained at 24 weeks is extra information.

The second sentence emphasizes that the sonograms were not available for interpretation. "... , which were obtained at 24 weeks' gestation, ..." is additional information and is thus set off by commas.

3.4.3 Parallel Construction

It is easier for readers to understand a comparison or a list if the items are presented in similar – or parallel – forms.

"The fracture was hypointense on either the T1-weighted or the T2-weighted SE MR images (not *either on the T1-weighted or the T2-weighted SE MR images*)."

3.4.4 Anthropomorphism

Only humans – not imaging modalities (e.g., CT, US, MR imaging) or equipment – can diagnose, detect, or identify. Imaging modalities and equipment can help the radiologist to diagnose or detect, and imaging modalities specifically can depict findings.

CT *helped* [the physician] *to diagnose* hepatocellular carcinoma. Hepatocellular carcinoma *was diagnosed* with the aid of CT.

MR imaging *depicted* the cerebral aneurysm.

3.4.5 Hyphenation of Compound Modifiers

In most cases, modifiers composed of more than 1 word (i.e., compound modifiers) are hyphenated when they precede the noun but not when they follow it. If no confusion results from not hyphenating, then inserting a hyphen is unnecessary.

The well-defined border indicated that the lesion was benign. The lesion was well-defined in the image.

Compound modifiers are hyphenated to make clear the modifier and the object being modified.

The patient had a small-bowel obstruction.

Without the hyphen in "small-bowel," it would not be clear whether the patient had a small obstruction of the bowel or an obstruction of the small bowel.

Certain other terms, including those hyphenated in the dictionary, are always hyphenated, regardless of whether they appear before or after the noun. Examples include well-being, time-consuming, and self-esteem.

Modernization of hyphenation. Many technological words were hyphenated in the past but are not now (e.g., on-line is now online, email is now email, and 3-D is now 3D).

3.4.6 Commas

Commas can be used with semicolons to replace missing repeated words.

In the 12 patients, the mean lesion size in the head of the pancreas was 4.0 cm; in the body, 2.5 cm; and in the tail, 3.0 cm.

3.4.7 Virgule

The use of virgules, or slashes, to separate words can be confusing because the virgule could be interpreted to mean "and," "or," or "to."

The 2 study populations had similar *male-to-female* (not *male/female*) ratios.

The patients reported having *ankle and foot* (not *ankle/foot*) pain.

If "ankle/foot" were used, it would not be clear whether "ankle *or* foot" or "ankle *and* foot" was meant.

3.5 ACGIH Style

The following subsections include formatting guidelines for maintaining consistency among ACGIH publications. For Documentation, the following apply:

- Font family: Arial
- Font size: 10 pt font
- Margins: Top is 0.5", bottom is 0.75", left is 1", right is 1"
- Spacing: Single-spaced
- Citations: Council of Science Editors style
- Special characters: Retain (e.g., Landersø, García, µg (not ug or mcg))

3.5.1 Mathematic and Scientific Terms

Abbreviations and acronyms. Define abbreviations and acronyms at the point of first use in the document, e.g., "Gas chromatography (GC) is ideal for separating VOC mixture components." When in doubt, spell out the definition. LC₅₀, LD₅₀, and RD₅₀ should have subscript numerals.

Variables, constants, Greek letters, and special symbols. All variables and constants must be defined at the point of first use.

Hyphens and slashes (virgules) for units. Instead of using hyphens between measurements, use "to" or "through." For example, days 15 through 17 versus days 15-17 and 2 ppm to 4.3 ppm versus 2-4.3 ppm.

Measurements in a series. Use the unit measurement for every part of a series instead of just the last item: "the study noted dropped weights of 15%, 17.8%, and 25%" versus 15, 17.8, and 25%.

Numerals and mathematical expressions. Use numerals instead of spelling out the number except at the beginning of a sentence (unless the number is greater than 1,000). For all numbers of 4 digits or greater (1,000 and greater), use commas to separate groups of 3 digits. These mathematical expressions should not be capitalized: log, lognormal, least squares, etc. Chemical names are not capitalized in mid-sentence.

Significant digits. Pay attention to significant digits. Any experimental data reported in the literature to more than 2 significant digits should be checked carefully. For example, "the sample was collected for 48.0 min at an air flow of 2.4 L/min, and the measured concentration was 6.32 mg/m³." Since the air flow was only measured to 2 significant digits, the sample volume and the concentration can only be known to 2 significant digits. So, even though the original article said "6.32 mg/m³", report it as "6.3 mg/m³." In general, where net measurements entail products or quotients of multiple measured quantities, each of which is reported with a certain number of significant digits, the final value should be reported to the lowest number of digits found among the constituent quantities.³

Space between symbols. When writing out mathematical symbols, put space between the symbols and the numerals: "2 ≤ 3."

Temperature. There is no space between the number and the degree symbol: "the recorded temperature was -20°C."

Units of measure.

1. Both SI and conventional units with their correct names should be used. In format "conventional (SI)."
2. Symbols for units formed from other units by multiplication are indicated using either a half-high (that is, centered) dot or a space. Use the center dot because it is less likely to lead to confusion. Example:

$$N \cdot m \text{ or } Nm$$

3. Symbols for units formed from other units by division are indicated using a solidus (virgule, /) or by a product with the denominator raised to the power of "-1". Example:

$$m/s \text{ or } m \cdot s^{-1}$$

4. However, to avoid ambiguity, the virgule must not be repeated on the same line unless parentheses are used. Examples:

$$m/s^2 \text{ or } m \cdot ss^{-1} \text{ but not } m/s/s$$

5. Unit symbols and unit names are not used together. Example: C/kg or coulomb per kilogram but not coulomb/kg; C/kilogram; coulomb/kilogram; etc.
6. Unit symbols or names are never abbreviated in a sentence without a numeric value. Do not use sec or s, cc, mins, hrs, lit, amps, etc.

3.5.2 Grammar

American spelling. Please use the American spelling of terms (labor versus labour, labeling versus labelling). All British English or Canadian English spelling will be changed to American.

If an author's primary language is not English and they would like a closer reading of their draft to check grammar and syntax, feel free to contact staff for help.

Capitalization of names. Proper nouns, such as names, should be capitalized. This rule includes rat and mouse lines (Wistar, Sprague-Dawley) but not chemical names (unless they are trade names, such as Roundup).

3.5.3 Spelling and Punctuation

Country names and codes and state abbreviations. Please use the US for the United States, GB for Great Britain, FR for France, etc., as defined by ISO 3166-1. For states in the US, use the USPS abbreviation (e.g., MN for Minnesota).

Dashes. Keep the use of dashes to a minimum, or use parentheses instead. If dashes are used, put spaces between them — like this — throughout the whole document for consistency. Example: "the rats were fed corn — which they loved — every day" versus "the rats were fed corn—which they loved—every day." In ACGIH publications, use em dashes and en dashes sparingly.

E.g., i.e., and et al. Please use a comma after all instances of e.g. and i.e. As a reminder, the period in et al. is in the second half of the abbreviation for et alia (meaning "and others").

Italics versus quotes for titles. It can be hard to tell when to use quotes, italics, or simply title case for titles. Please use the following guide:

Book title	<i>Air Sampling Instrument Technology</i>
Article title	"X-Rays and the Human Condition"
Journal name	<i>Journal of Political Economy</i>
Standard name	Standard Title Here

Oxford comma and other specialized comma use. The serial or Oxford comma is used in ACGIH style. An example would be: "IH professionals learn to anticipate, recognize, evaluate, control, and manage occupational hazards," where the Oxford comma comes after "control" and before "and."

Parentheses. When there is the need to put parentheses inside parentheses, use square brackets for the second set, e.g., "the scientist used their stethoscope (without warming it [commonly done with the breath]) on the patient."

Referencing years. Please be as specific as possible with dates. Instead of "mid-20th century", write "the 1950s."

Semicolons, colons, and lists. Semicolons are a handy way to string together thoughts that are closely related. If dividing the thought into multiple sentences makes more sense, then default to that.

Semicolons can also be used in lists when commas separate items, but the comma does not start a new item. For example: "she packed the beach umbrella; the dog toys and treats; the pool toys, except for the inflatable raft; the cooler with the sandwiches; and the sunscreen." Colons are used at the beginning of lists as a substitute for "they are" and the like. Regarding colons and capitalization, the first word after a colon can be capitalized if it forms a complete sentence. No need for colons if the text following it is in a list.

Shorthand symbols. Do not use @ as shorthand for "at" or & for "and."

Using emphasis. Do not use capital or bolded letters for emphasis. Use italics and keep emphasis to the minimum.

Using quotes. Do not use quotes unless defining informal terms. In the same vein, limit the use of "so-called" when defining informal terms, as it has too much potential to sound sarcastic.

Using registration marks. Use a superscript ® for registered trademarks, such as TLV®, BEI®, and ACGIH® when first presented, whether in a heading or the body of the document. The use of brand names should be limited, as much as possible, to only those instances in which the product may be challenging to identify without naming the brand name, for example, Band-Aid, Vaseline, and Roundup. When citing commercial products, include the name of the manufacturer after the product name, for example, "acetylsalicylic acid (Aspirin, Bayer)." However, the tradename is used only if absolutely necessary and relevant to the study or chapter at hand. The generic descriptive term should always be used at first mention, for example, bandage, petroleum jelly, glyphosate.

3.5.4 Formatting Content

Image sources. Government databases are a favorite free and legal source of images of chemical structures, which are required in the Documentation of chemical TLVs and BEIs. PubChem or ChemIDplus are preferred resources. You can reuse the 2D or 3D structure images presented on PubChem pages in ACGIH publications without special permission from PubChem.

If there is a preference for staff to create the image from scratch, reach out to the Technical Editor. If the image originated from a source that maintains copyright, please reach out to staff to begin the process of acquiring permission.

Notes and comments. Notes and comments should be 3 lines long or shorter or be incorporated into the main text.

Quote marks. Please place punctuation inside quotation marks: the authors noted he "walked briskly to the car" and "got in quickly." Use double quotes in all instances unless there is a quote-within-quote. For instance, the authors stated, "there was no design to assassinate the assassin, and the director had said 'absolutely not' to all murderous ideas."

Quotations (if applicable). If a quotation reaches 4 lines of text or more, indent it by 1" on the right and left side and separate it from the main body of the text with the source cited immediately before or after.

Periods and spacing. Use 1 space after periods and not 2 spaces. The 1-space rule has been standardized to the point that Word now flags a double space as an error.

3.5.5 Formatting Tables and Figures

Please see [Section 6](#) for formatting standards.

3.5.6 Author Attribution

Most publications will be authored by committees, contributing consultants, or ACGIH. Please submit your manuscript using the name you would like to appear. Where appropriate, author affiliations or credentials will be listed.

4 Literature Searches

Initial literature searches are conducted by the Scientific Process and Research Manager. This process promotes consistency, provides ease of updating, and creates an essential record of search strategies. Peer-reviewed, published primary resources are the preferred source of information for ACGIH. Human studies will be considered first, followed by animal studies with endpoints and routes of exposure, then genotoxicity and metabolic data. If no primary materials are found, a search will be conducted to find robust summaries, government documents, or industry materials that can be used as an overview or support committee recommendations.

If non-peer-reviewed or unpublished materials are necessary, the member using them is expected to provide a copy of these materials to ACGIH upon completion of the draft Documentation. If unpublished data are used, the owner must first provide ACGIH written permission to use, cite, and release the data/report to an outside party upon request.

In the case of translated information, care must be taken to ensure the information has been correctly interpreted. Translation of non-English sources may be possible if the study is critical to the TLV recommendation. The need for such translation should be discussed with the appropriate Chair; the Subcommittee Chair should then send such requests to the TLV-CS Committee Chair for review and recommendation to the ACGIH staff for approval. Copies of any translations should be sent to the ACGIH Staff.

Abstract-only references should be avoided, as they do not provide enough evidence to support Documentation and publications.

4.1 Unverified Older Sources

Any unverifiable source through databases or other traditional means requires the bibliographic page, relevant table of contents page, and the relevant chapter title page. Send the file via email or Sharefile upload to the staff contact person.

5 References & Bibliography Management

This section provides information on citing references for ACGIH publications.

ACGIH uses EndNote for bibliography management. Authors are also strongly encouraged to use a bibliographic software tool to facilitate sharing of source information with staff and improve efficiency for any publication.

5.1 General Reference Rules

These rules apply to all written material as a list of dos and don'ts.

- Do be sure, especially for Documentation, to have the source of any reference accessible to ensure complete and accurate citations.
- Don't include extraneous information in a reference. If a comment needs to be made, it will go in the text.
- Do be sure that each reference is separate: for instance, 2 NIOSH methods will each get a citation, even if found in the same book.
- Do be sure to cite a chapter and page numbers in a book if the whole book is not used.

5.2 Reference Style

ACGIH uses the citation–sequence system with reference numbers as superscripts (e.g., "the study by Plumb³ was verified further by Mitchell.⁴").

5.3 Using EndNote

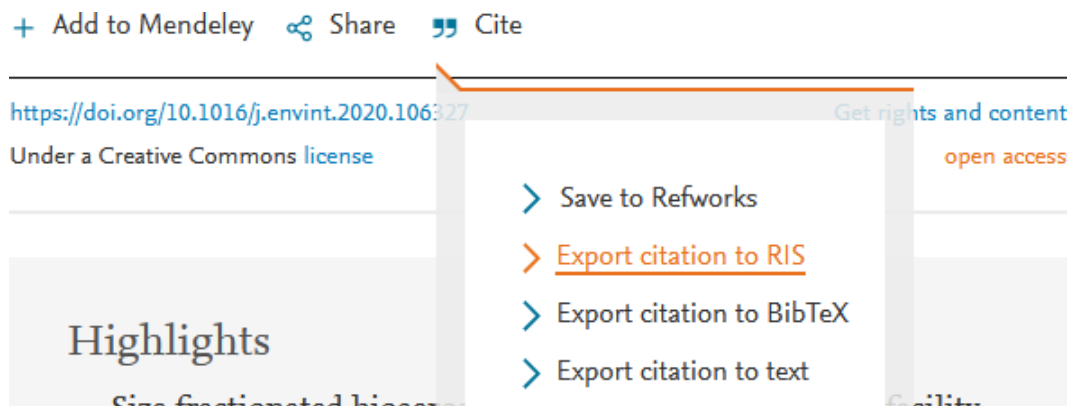
EndNote has an extensive library of training materials in multiple forms at the following website: <https://clarivate.com/webofsciencegroup/support/endnote/>.

5.3.1 Best Practices for Finding References

Important note: Google Scholar has an export citation option. However, authors are advised to go directly to the publisher. Google Scholar citations can be inaccurate or incomplete and will only create more work when proofing citations and adding items such as page numbers, volume, or issue or correcting names. The publisher will always have the full, accurate citation and ensure that essential things like accents on names are not lost. It is important to ensure that an "ø" does not become an "o."

PubMed, databases such as EMBASE or OVID, and publisher websites are typically the best places to find citations. Then, the citation can be downloaded as an EndNote file (EndNote takes the file formats of .enw, .ris, .nbib). The majority of publishers have an export citation feature. Below are screenshots from 3 popular publishers showing how to use this feature. The most it takes is about 2 clicks, and you have the file you need.

For Elsevier:



For PubMed:

CITE

Lee SA, Willeke K, Mainelis G, Adhikari A, Wang H, Reponen T, Grinshpun SA. Assessment of electrical charge on airborne microorganisms by a new bioaerosol sampling method. *J Occup Environ Hyg.* 2004 Mar;1(3):127-38. doi: 10.1080/15459620490424357. PMID: 15204870.

Copy Download .nbib Format: NLM

Email Send to Display options

ACTIONS

Cite Favorites

SHARE

Twitter Facebook LinkedIn

For Wiley:

The Assessment of Aerosol Concentration by Means of the Andersen Sampler

S. Peto, E. O. Powell

First published: September 1970 | <https://doi.org/10.1111/j.1365-2672.1970.tb02237.x> | Citations: 13

PDF TOOLS SHARE

Summary.

The statistical problem presented by the Andersen sampler is provided for estimating from the sampler read concentration in the aerosol, with its confidence

Request permission

Export citation

Add to favorites

Track citation

Citing Literature

6 Tables and Figures

When formatting tables, use the following guidelines. Please note that if a table is complex, the author should follow these guidelines as they apply. The end goal is consistency and readability.

6.1 Tables

Table 1. Bold Your Caption and Use Title Case with Table Clearly Numbered

Heading	Heading	Heading	Heading
Keep large amounts of text justified left with numbers centered	0.0	5.2	8.87
Use 10 pt font for your tables	1.1	7.77	32
Source your data in a table note	0.44	5.5	54

Note: If you would like to write a note and a source, please place the note first and the source second on separate lines.

Source: The source must be included in the reference list. Notes and Sources should have a period at the end.

The order of footnotes is as follows:

1. Any explanation for the table title (if it is too long for the title), followed by an expansion of the table's abbreviations.
2. Anything in the body of the table that needs explanation should use superscript letters in the table and explain in the footnotes. E.g., if 8.87 in the table example here needs to be explained, then put a superscript next to it – 8.87^a, and the footnote will say: ^a This figure is an aggregate of data from Smith et al.
3. Source footnote, using this verbiage:
 - a. Reprinted with permission from
 - b. Adapted with permission from
 - c. Based on data from

Do not put periods at the end of your titles unless the title includes multiple sentences, and even then, consider working the information into the text instead so the title is minimal. Tables should be centered. Please add "Second Table Title, Cont." for continuous tables to alert the reader. When mentioned in the text, capitalize table and figure: "Table 1" or "Figure 3-17" and so forth.

6.2 Figures

6.2.1 Proper Attribution

Figures that a volunteer author wishes to include but were not generated by the author should be obtained from the primary publication where they appeared, if possible. Obtaining permissions would facilitate requests for permission to reproduce the figure, which, in most cases, must be granted to avoid copyright infringement. Regardless, sources (and permissions, if applicable) must be cited in the figure caption or in a footnote. Citing also includes information displayed in tables (even if the source is "author's estimations" or similar).

Due to copyright infringement, Google (i.e., an undesignated website) is not a valid source of images. Image quality is also a concern since images must have a minimum resolution to produce an acceptable image in the document under consideration. See more about DPI below.

6.2.2 Creating Figures

Please contact the Technical Editor for assistance if an original figure needs to be created or recreated.

6.2.3 Obtaining Copyright

Please reach out to staff to handle permission acquisitions for images.

6.2.4 Accepted File Types

The following file types are suitable: PNG, EPS, and PDF.

JPEG files slowly become corrupted over time the more they are saved, so they are unsuitable for publications.

6.2.5 Checking DPI

To ensure the highest quality, submitted graphs and figures should be at least 300 DPI. DPI is "dots per inch" and reflects the resolution quality of a graph or image.

Below are the steps to check for DPI outside a program such as Photoshop. It just takes a few clicks to ensure that a graph or image is production-ready:

1. Right-click on your file
2. Select "Properties" at the very bottom
3. Select the "Details" tab in the new popup
4. In the "Property" or "Value" table, scroll to "Image"
5. DPI is displayed in "Horizontal" and "Vertical" resolution

7 Presentations

Presentations require an ACGIH-created template. The ACGIH Digital Media and Design Manager proofs the presentations, so please contact them for assistance.

8 Equations & Inline Math

8.1 Writing and Formatting Equations

Microsoft Word is perfectly serviceable for the creation of math using its equations editor.

If you are familiar with using LaTeX language, Word's equation editor takes LaTeX commands.

`\gamma` will show γ

`\frac{{}{}}` will show a fraction, etc.

Microsoft has a guide on using their equation editor [here](#). If a document has quite a lot of math, it is helpful to learn the shortcut: Alt+ =.

A stronger tool is the coding language LaTeX. It is much easier to create the following equation¹ in LaTeX than in Word:

$$\begin{aligned}\gamma &= \lim_{n \rightarrow \infty} \left(-\ln n + \sum_{k=1}^n \frac{1}{k} \right) \\ &= \int_1^{\infty} \left(-\frac{1}{x} + \frac{1}{[x]} \right) dx\end{aligned}$$

That is all the math for today, so we will start a new paragraph.

8.2 Getting Equation Help

Please contact the Technical Editor for help with complex math typesetting.

¹ This is the Euler-Mascheroni constant.

References

1. Council of Science Editors, Style Manual Committee. Scientific style and format: the CSE manual for authors, editors, and publishers. 7th ed. Reston (VA): The Council; 2006.
2. Franks KL, Hill VB. Grammar and punctuation in scientific writing. *Radiology*. 2001; 218(1):8-9.
3. Thompson A, Taylor BN. Guide for the use of the international system of units (SI). NIST Special Publication 811. 2008.