# DESCRIPTON

*Physiotherapy* aims to publish original research and facilitate continuing professional development for physiotherapists and other health professions worldwide. Dedicated to the advancement of *physiotherapy* through publication of research and scholarly work concerned with, but not limited to, its scientific basis and clinical application, education of practitioners, management of services and policy.

We are pleased to receive articles reporting original scientific research, systematic reviews or meta-analyses, theoretical or debate articles, brief reports and technical reports. All papers should demonstrate methodological rigour.

The journal employs a double blind peer review process for all original articles and has a current Impact Factor of 3.704 (2021 Journal Citation Reports, Clarivate Analytics 2022).

# ABSTRACTING AND INDEXING

- CISTI
- CIRRIE
- Scopus
- AMED
- Current Contents - Clinical Medicine
- MANTIS
- EMCARE
- CSA Physical Education Index
- OSTMED
- SIRC
- Journal Citation Reports - Science Edition
- Science Citation Index Expanded
- HEED
- CINAHL
- Embase
- ASSIA
- PubMed/Medline
- PubMed/Medline
EDITORIAL BOARD

Editor
Michele Harms, University of London Saint George’s, London, United Kingdom

Associate Editors
Karen Barker, Oxford University Hospitals NHS Foundation Trust Nuffield Orthopaedic Centre, Oxford, United Kingdom
Claire Black, University College Hospital, London, United Kingdom
Victoria Goodwin MBE, University of Exeter Medical School, Exeter, United Kingdom
John Hammond, St George’s University of London, London, United Kingdom
Cherry Kilbride, Brunel University London, Department of Health Sciences, Uxbridge, United Kingdom
Kika Konstantinou, Keele University, Staffordshire, United Kingdom
Irmina Nahon, University of Canberra, Canberra, Australia
Ethne Nussbaum, University of Toronto, Department of Physical Therapy, Toronto, Canada
Valerie Pomeroy, University of East Anglia, Norwich, United Kingdom
Harriet Shannon, University College London, London, United Kingdom
Saurab Sharma, University of New South Wales Discipline of Physiology, Sydney, Australia
Toby Smith, Norwich Epidemiology Centre, School of Health Sciences, Norwich, United Kingdom

Statistical Advisor
Reuben Ogollah, Keele University, Staffordshire, United Kingdom

International Advisory Board
Alex Benham, Huddersfield, United Kingdom
Rob de Bie, Maastricht, Netherlands
Sarah Blanton, Atlanta, United States of America
Yvonne Coldron, London, United Kingdom
Elizabeth Dean, Vancouver, Canada
April Gamble, Sulaymaniyah, Iraq
Karen Ginn, Sydney, Australia
E. Jean Hay Smith, Dunedin, New Zealand
Alice Jones, Lidcombe, Australia
Rebecca Kearney, Coventry, United Kingdom
David Keene, Oxford, United Kingdom
Michel D. Landry, Durham, United States of America
Daniel Langer, Leuven, Belgium
Olive Lennon, Dublin, Ireland
Stephen May, Sheffield, United Kingdom
James McLoughlin, Bedford Park, Australia
Ann Newstead, Helotes, United States of America
Sjan-Mari van Niekerk, Cape Town, South Africa
George Ntoumenopoulos, Darlinghurst, Australia
Fábio de Oliveira Pitta, LONDON, Brazil
Selina Parry, Melbourne, Australia
Shane Patman, Fremantle, Australia
Catherine Sherrington, Sydney, Australia
Nora Shields, Melbourne, Australia
Sally Singh, Leicester, United Kingdom
Michele Sterling, Brisbane, Australia
Grace Szeto, Hong Kong, Hong Kong
Ian Wellwood, Cambridge, United Kingdom
Xubo Wu, Shanghai, China
GUIDE FOR AUTHORS

The journal editor, Michele Harms, welcomes articles for publication in the journal. *Physiotherapy* invites papers in the following categories: Original research, systematic and scoping reviews or meta-analysis, theoretical or debate articles (aim for 3000 words excluding abstract and references, with a limit of 40 references); brief reports (750 words and 1 table/figure, with a limit of 10 references); technical reports (1000-2000 words, with a limit of 20 references); and Letters to the Editor (400 words). While most of our editorials are commissioned, we also welcome editorials that deal with current or controversial topics (1000 words).

Please ensure that submissions conform to the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, issued by the International Committee for Medical Journal Editors (J Am Med Assoc 1997;277:927-934; http://www.icmje.org/index.html) *Physiotherapy* supports the principles of the Committee of Publication Ethics (COPE), which oblige the highest standards of practice on all participants in scientific research and publishing (www.publicationethics.org.uk). It is recognised that it may not be possible to identify or be aware of all transgressions to the code of practice. Complaints to this journal are dealt with by the Editorial Board in line with COPE's code of practice.

BEFORE YOU BEGIN

**Ethics in publishing**

Please see our information on Ethics in publishing.

**Human and animal rights**

If the work involves the use of animal or human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-invol EU Directive 2010/63/EU for animal experiments http://ec.europa.eu/environment/chemicals/lab_animals/legislation_en.htm; Uniform Requirements for manuscripts submitted to Biomedical Journals http://www.icmje.org. The privacy rights of human subjects must always be observed.

Patients' and volunteers' names, initials, and hospital numbers should not be used. It is the author's responsibility to ensure all appropriate consents have been obtained.

**Patient anonymity**

Studies on patients or volunteers require ethics committee approval and informed consent which should be documented in your paper. Patients have a right to privacy. Therefore identifying information, including patients' images, names, initials, or hospital numbers, should not be included in videos, recordings, written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and you have obtained written informed consent for publication in print and electronic form from the patient (or parent, guardian or next of kin where applicable). If such consent is made subject to any conditions, Elsevier must be made aware of all such conditions. Written consents must be provided to Elsevier on request. Even where consent has been given, identifying details should be omitted if they are not essential. If identifying characteristics are altered to protect anonymity, such as in genetic pedigrees, authors should provide assurance that alterations do not distort scientific meaning and editors should so note. If such consent has not been obtained, personal details of patients included in any part of the paper and in any supplementary materials (including all illustrations and videos) must be removed before submission.

**Declaration of interest**

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double anonymized) or the manuscript file (if single anonymized). If there are no interests to declare then please state this:
'Declarations of interest: none'. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.

**Declaration of generative AI in scientific writing**

The below guidance only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process.

Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. AI and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier's [AI policy for authors](www.elsevier.com/locate/physt).

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.

**Disclosure instructions**

Authors must disclose the use of generative AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript in the core manuscript file, before the References list. The statement should be placed in a new section entitled 'Declaration of Generative AI and AI-assisted technologies in the writing process'.

**Statement:** During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

**Submission declaration and verification**

Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

**Use of inclusive language**

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Reporting sex- and gender-based analyses**

**Reporting guidance**
For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research’s generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the Sex and Gender Equity in Research (SAGER) guidelines and the SAGER guidelines checklist. These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

Definitions
Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth (“sex assigned at birth”), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

Authorship
All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Acknowledgements
All contributors who do not meet the criteria for authorship as defined above should be listed in an acknowledgements section. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Authors should disclose whether they had any writing assistance and identify the entity that paid for this assistance.

REPORTING GUIDELINES
To facilitate the accurate, complete, and transparent improve the quality of reporting of research, Physiotherapy supports the initiatives available through the EQUATOR Network (Enhancing the QUality and Transparency Of health Research) which houses a database of all reporting guidelines for health research (http://www.equator-network.org/).
To assist authors and reviewers, the following guidelines are required for all submissions, where possible and relevant. Please include a flow diagram of the study design and a completed checklist at the point of submission. A TiDier checklist should be included where an intervention is described. The following list is relevant to the main study types but is not an exhaustive list. Please refer to the EQUATOR website for further details.

**Study type = RANDOMISED CONTROLLED TRIAL**
**Description** = Consolidated Standards of Reporting Trials  
**Acronym** = CONSORT

**Study type = OBSERVATIONAL STUDIES**
**Description** = Strengthening the Reporting of Observational studies in Epidemiology  
**Acronym** = STROBE

**Study type = SYSTEMATIC REVIEWS**
**Description** = Preferred Reporting Items for Systematic Reviews and Meta-Analyses  
**Acronym** = PRISMA

**Study type = QUALITATIVE RESEARCH**
**Description** = Standards for reporting qualitative research  
**Acronym** = SRQR  
or

**Study type = QUALITATIVE RESEARCH**
**Description** = Consolidated criteria for reporting qualitative research  
**Acronym** = COREQ

**Study type = STUDY PROTOCOLS**
**Description** = Standard Protocol Items Recommendations for Interventional Trials  
**Acronym** = SPIRIT

**Study type = STUDY INTERVENTIONS (can be used with CONSORT etc)**
**Description** = Template for Intervention Description and Replication  
**Acronym** = TIDieR

**Study type = DIAGNOSTIC/PROGNOSTIC STUDIES**
**Description** = Standards for the Reporting of Diagnostic Accuracy  
**Acronym** = STARD or TRIPOD

**CLINICAL TRIAL and SYSTEMATIC REVIEW REGISTRATION**

As a condition of consideration for publication, clinical trials must be registered at or before the onset of patient enrolment in a public trials registry. The clinical trial registration number should be included at the end of the abstract of the article. For this purpose, a clinical trial is defined as any research project that prospectively assigns human subjects to intervention or comparison groups to study the cause and effect relationship between a medical intervention and a health outcome. Further information can be found at [http://www.icmje.org](http://www.icmje.org). Systematic reviews should also be registered on PROSPERO, an international database of prospectively registered systematic reviews in health and social care ([http://www.crd.york.ac.uk/prospero/](http://www.crd.york.ac.uk/prospero/)).

**Randomised controlled trials**
Randomised controlled trials should be presented according to the CONSORT guidelines. At manuscript submission, authors must include a complete Consolidated Standards of Reporting Trials (CONSORT) flow chart. *Physiotherapy* has adopted the proposal from the International Committee of Medical Journal Editors (ICMJE) which require, as a condition of consideration for publication of clinical trials, registration in a public trials registry. Trials must register at or before the onset of patient enrolment. Studies designed for other purposes, such as to study pharmacokinetics or major toxicity (e.g. phase I trials) would be exempt. Further information can be found at [http://www.icmje.org](http://www.icmje.org). The CONSORT checklist and template flow diagram can be found on [http://www.consort-statement.org](http://www.consort-statement.org).

**Questionnaires**
The format of reports for questionnaires and surveys should follow that of research reports where appropriate. In consideration of respondent bias, the editorial board has made a response rate of more than 65% a requirement of publication. On occasion, a lower response rate may be acceptable although this will be judged on a paper-by-paper basis. Sampling frame, subject selection methods and strategies for follow-up of non-responders should be reported. Report responses in the format (83/300, 28%) - 300 being the number of possible respondents for this item. Percentages should be reported to the nearest integer.
Outcome measures

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete a 'License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement, it is recommended to state this.

All sources of funding should be declared at the end of the text.

Open access
Please visit our Open Access page for more information.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the Language Editing service available from Elsevier's Language Services.

Submission
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Queries may be directed to the Editorial Office: E-mail: physiotherapy@elsevier.com

Submit your article
Please submit your article via https://www.editorialmanager.com/PHYST.

PREPARATION
Double-anonymized review
This journal uses double-anonymized review, which means that both the reviewer and author name(s) are not allowed to be revealed to one another for a manuscript under review. The identities of the authors are concealed from the reviewers, and vice versa. For more information please refer to https://www.elsevier.com/reviewers/peer-review.

The main body of the paper (including the references, figures, tables and any Acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

Authors should ensure that the place of origin of the work or study, and/or the organisation(s) that have been involved in the study/development are not revealed in the manuscript – “X” can be used in the manuscript and details can be completed if the manuscript is processed further through the publication process.

Use of wordprocessing software
It is important that the file be saved in the native format of the wordprocessor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the wordprocessor's options to justify text. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: https://www.elsevier.com/guidepublication). Note that source files of figures, tables and text graphics will be required. See also the section on Electronic artwork.

Presentation of manuscript
Please write your text in good English (American or British usage is accepted, not a mixture of these). Use decimal points (not commas), use a space for thousands (10 000 and above). Please try to avoid abbreviations wherever possible. Authors should use person first language: e.g., "patients with arthritis" rather than "arthritis patients".

Present the entire manuscript using double spacing, line number and page numbers. Ensure that each new paragraph is clearly indicated. Present tables and figure legends on separate pages at the end of the manuscript. Consult a recent issue of the journal to become familiar with layout and conventions. Number all pages consecutively.

Provide the following data on the title page (in the order given).

Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.

Author names and affiliations. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.

Twitter handles. Twitter handles for one, or all, authors may be included on the title page if authors wish for these to be published.

Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.

Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Word count. Provide a word count for the main body of the paper, excluding abstract, acknowledgments, figure legends, tables and references.
Abstracts. A concise and factual abstract is required (maximum length 200 words for an unstructured abstract or 250 words for a structured abstract). An abstract is often presented separate from the article, so it must be able to stand alone. The abstract should be written using the following headings as appropriate:

- **Objectives**: a clear statement of the purpose of the study
- **Design**: describe aspects of the study: randomisation, prospective, anonymization, placebo controlled, observational, survey
- **Setting**: include the level of care eg primary, secondary; number of participating centres
- **Participants**: numbers, selection criteria, numbers entering and completing study
- **Interventions**: what were the interventions, how and for how long
- **Main outcome measures**: identify primary outcome measure and any supporting secondary outcome measures
- **Results**: including main finding, point estimate and degree of uncertainty eg: confidence interval for the difference between groups, where appropriate
- **Conclusions**: main conclusion based on results and objective of study, implications

**Clinical Trial Registration number**

For meta-analyses and systematic reviews, provide a structured summary in line with the PRISMA Statement, including as applicable:

- **Background or context**
- **Objectives**: the clinical question or purpose
- **Data sources**: databases searched and other information sources
- **Study selection or eligibility criteria**: (participants, and interventions)
- **Study appraisal and synthesis methods** (or Data Extraction and Data Synthesis);
- **Results**
- **Conclusion and implications of key findings**
- **Funding**: for the systematic review

**Systematic review registration number**.


**Keywords**

Immediately after the abstract, provide a maximum of 6 keywords. Words selected should reflect the essential topics of the article and will be used for indexing purposes.

Terms from the Medical Subject Headings (MeSH) list should be used (http://www.nlm.nih.gov/mesh/). If suitable MeSH terms are not available, subject specific terms can be used.

At the end of the paper, but before the references, please provide three statements:

- **Ethical Approval**: The organisation providing ethical approval and ethics protocol reference number where appropriate.
- **Funding**: any sources of funding should be stated.
- **Conflict of Interest**: Disclosed conflicts will be published if they are believed to be important to readers in judging the manuscript. If there are no conflicts of interest, authors should state that there are none.

**Contribution of the Paper**

All submissions (with the exception of Brief Reports, Technical Reports, Letters and Editorials) should include a "Contribution of the Paper" statement. This should inform the reader of the key messages of the article/what the paper adds to the current literature, and what new knowledge is added by this study. Please provide clear statements in the form of two or three short bullet points for each.

The bullet points should appear under a separate heading Contribution of paper and should be placed after the abstract but before the Keywords in your main manuscript file.
Data Analysis
Presentation of data and subsequent analyses should be clear and transparent. When presenting parametric statistics (e.g., Mean, Standard deviation) and parametric data analysis, the authors should provide evidence that their data are normally distributed where appropriate. Non-parametric statistics (e.g., Median, Inter-quartile range) and non-parametric analysis should be used where the data does not fulfill the assumptions for parametric analysis. Report p-values < .05 to 3 digits and values > .05 to 2 digits. Therefore 0.066 should be 0.07 and 0.0003 should be < 0.001.

Formatting of funding sources
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Artwork
Electronic artwork
General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Embed the used fonts if the application provides that option.
• Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Size the illustrations close to the desired dimensions of the published version.
• Submit each illustration as a separate file.
• Ensure that color images are accessible to all, including those with impaired color vision.

A detailed guide on electronic artwork is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/halftone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations
are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. **Further information on the preparation of electronic artwork.**

*Figure captions*
Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

*Permission of borrowed illustrations or table or identifiable clinical photographs*
Permission to produce materials (Illustrations and tables) must be obtained from the original publishers and authors, and submitted with the typescript. Borrowed material should be acknowledged in the captions in this style - 'Reproduced by kind permission of (publishers) from (reference)'. Written permission to use photographs of identifiable subjects must be provided.

*Tables*
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

*References*
Generally the search strategy should be reported, including details of the databases searched, the dates searched and the search terms. References will be judged not only on applicability, but also on time since publication. Although it is accepted that occasionally an historical reference is required, the majority of references should be recent. By providing the literature search strategy, this will illustrate that appropriate dates have been included should there be little recent literature in that area.

Responsibility for the accuracy of bibliographic citations lies entirely with the authors. The Vancouver Numbered style of referencing should be used. Authors should aim for 75% of their references to be within the preceding 5 years, with a limit of 40 references (10 references for short communications, 20 references for technical reports).

Citations in the text: Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not permitted. Citation of a reference as ‘in press’ implies that the item has been accepted for publication.

*Reference links*
Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, Crossref and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. Journal of Geophysical Research, https://doi.org/10.1029/2001JB000884. Please note the format of such citations should be in the same style as all other references in the paper.

*Web references*
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.
Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

Preprint references
Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Reference style
Text: Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.
List: Number the references (numbers in square brackets) in the list in the order in which they appear in the text.
Examples:
Reference to a journal publication:
Reference to a book:
Reference to a chapter in an edited book:
Data citation:
Note shortened form for last page number. e.g., 51–9, and that for more than 6 authors the first 6 should be listed followed by 'et al.'

Video
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.
**Supplementary material**

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

**Research data**

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings, which may also include software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

**Data linking**

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

**Data statement**

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

**Submission checklist**

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

**Ensure that the following items are present:**

One author has been designated as the corresponding author with contact details:

- E-mail address
- Full postal address

All necessary files have been uploaded, and contain:

- Keywords
- “Contribution of Paper statement” (in form of two to three bullet points)
- All figure captions
- All tables (including title, description, footnotes)

Further considerations:

- Manuscript has been ‘spell-checked’ and ‘grammar-checked’
- References are in the correct format for this journal
- An appropriate flow diagram and checklist has been submitted [http://www.equator-network.org/](http://www.equator-network.org/)
• All references mentioned in the Reference list are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• Printed version of figures (if applicable) in color or black-and-white
• Indicate clearly whether or not color or black-and-white in print is required.
For any further information please visit our customer support site at https://service.elsevier.com.

AFTER ACCEPTANCE

Proofs
One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author or a link will be provided in the e-mail so that authors can download the files themselves. Elsevier now provides authors with PDF proofs which can be annotated; for this you will need to download Adobe Reader version 7 (or higher) available free from http://get.adobe.com/reader. Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the Adobe site: http://www.adobe.com/products/reader/tech-specs.html.
If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If, for any reason, this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and return by fax, or scan the pages and e-mail, or by post. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. We will do everything possible to get your article published quickly and accurately – please let us have all your corrections within 48 hours. It is important to ensure that all corrections are sent back to us in one communication: please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility. Note that Elsevier may proceed with the publication of your article if no response is received.

Offprints
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

AUTHOR INQUIRIES
Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.
You can also check the status of your submitted article or find out when your accepted article will be published.

© Copyright 2018 Elsevier | https://www.elsevier.com