**Description**

*Annals of Vascular Surgery*, published eight times a year, invites original manuscripts reporting clinical and experimental work in *vascular surgery* for peer review. Articles may be submitted for the following sections of the journal: Clinical Research (reports of clinical series, new drug or medical device trials) Basic Science Research (new investigations, experimental work) Case Reports (reports on a limited series of patients) General Reviews (scholarly review of the existing literature on a relevant topic) Developments in Endovascular and Endoscopic Surgery Selected Techniques (technical maneuvers) Historical Notes (interesting vignettes from the early days of vascular surgery) Editorials/Correspondence

**Benefits to authors**

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our [Guide for Authors](#) for information on article submission. If you require any further information or help, please visit our support pages: [http://service.elsevier.com](http://service.elsevier.com)

**Impact Factor**

2016: 1.145 © Clarivate Analytics Journal Citation Reports 2017

**Editorial Board**

*Editor-in-Chief:*

T.M. Sullivan, Minneapolis

*Editor:*

O. Gœau-Brissonnière, Paris

*Associate Editors:*

A. Abou-Zamzam, Loma Linda  
J Alexander, Minneapolis  
B. Alvarez, Barcelona  
F. Aziz, Hershey  
M. Bergoeing, Santiago  
R. Chiesa, Milan
W.D. Clouse, Boston
S. Desai, Springfield
M. Eagleton, Cleveland
M.A. Figueiredo, Minas Gerais
N. Gargiulo, Bronx
B. Gray, Greenville
C-W. Liu, Beijing
S.P. Lyden, Cleveland
T. Maldonado, New York
G. Modrall, Dallas
G.S. Oderich, Rochester, MN
J.M. Panneton, Norfolk
M.A. Passman, Birmingham
K. Rai, New Delhi
R. Rajani, Atlanta
V.L. Rowe, Los Angeles
B. Sumpio, New Haven
N. Wolosker, São Paulo
W.W. Zhang, Shreveport

Assistant Editors
J.H. Black III, Vascular & Endovascular Surgery Society, Baltimore
J. O’Connell, Southern California Vascular Surgical Society, Los Angeles

Founding Editors:
R. Berguer, Ann Arbor
E. Kieffer, Paris

Editorial Board:
A. Abou-Zamzam, Loma Linda
A.F. Abu Rahma, Charleston
C.J. Abularrage, Baltimore
Y. Alimi, Marseille
P. Amabile, Marseille
J. Ballard, Orange
C.F. Bechara, Houston
J.A. Beckman, Nashville
S. Brown, Ann Arbor
R. Bush, Houston
N. Cayne, New York
N. Chakfe, Strasbourg
Z. Chen, Beijing
A.J. Comerota, Toledo, Ohio
M.S. Conte, Boston
R. Coscas, Paris
A. Dardik, New Haven
L.F.P. De Figueiredo, São Paulo
R. De Martino, Rochester, MN
P. De Vleeschauwer, Lier
D.H. Deaton, Washington, D.C.
M. Doblas, Toledo, Spain
P. Faries, New York
P. Feugier, Lyon
E. Finol, San Antonio
J.A. Freischlag, Baltimore
W-G. Fu, Shanghai
N. Fujimura, Hiratsuka
H.A. Gelabert, Los Angeles
J.A. González-Fajardo, Valladolid
O.H. Grandas, Knoxville
W. Guo, Beijing
P.C. Gupta, Hyderabad
N.C. Hadro, Cleveland
R. Hassen-Khodja, Nice
S. Haulon, Lille
P.D. Hayes, Leicester
P.K. Henke, Ann Arbor
J.R. Hoch, Madison
S. Homer-Vanniasinkam, Bradford, UK
K. Hughes, Washington, DC
K.A. Illig, Tampa
M.R. Jaff, Boston
W.D. Jordan, Atlanta
P.G. Kalman, Toronto
M. Kalra, Rochester, MN
K. Khanafar, Ann Arbor
R. Kolluri, Columbus
H. Kuivaniemi, Danville
G.J. Landry, Portland
J.T. Lee, Stanford
P. Lermusiaux, Lyon
T.K. Liem, Portland
T. Lindsay, Toronto
P. Lozano, Palma de Mallorca
K. MacKenzie, Montreal
P.E. Magnan, Marseille
L.A. Marine, Santiago
V. Martín-Paredero, Tarragona
M. Matsumura, Madison
R.B. McLafferty, Springfield
M. Mehta, Albany
G.H. Meier, Cincinnati
M.H. Meissner, Seattle
R. Mertens, Santiago de Chile
F Miranda, Jr., São Paulo
F.L. Moll, Utrecht
M. Morasch, Billings
R. Moreno, Madrid
N. Morrissey, New York
R. Nachreiner, Tacoma
P. Nicolini, Lyon
K. Ozsvath, Albany
P.R. Pai, Mumbai
Jang-sang Park, Seoul
J.C. Parodi, Buenos Aires
H. Patel, Ann Arbor
P.S.K. Paty, Albany
A.H. Pereira, Porto Alegre
C.E. Piccinato, São Paulo
G.B.B. Pitta, Alagoas
E. Puras, Madrid
W.J. Quiñones-Baldrich, Los Angeles
S. Rahimi, New Brunswick
S. Raju, Flowood
J. Rectenwald, Ann Arbor
V. Rambau, Barcelona
S.P. Roddy, Albany
H.E. Rodriguez, Chicago
J. Rodriguez-López, Phoenix
A. Rosendo, Vigo
H.J. Safi, Houston
S. Santilli, Minneapolis
M. Schermerhorn, Boston
P.A. Schneider, Honolulu
G.R. Seabrook, Milwaukee
R. Segura, A Coruña
N. Sekar, Chennai
F. Serracino-Inglotti, Manchester UK
M.L. Shames, Tampa
M.K. Sheehan, San Antonio
A.D. Shepard, Detroit
C. Shu, Changsha
G.A. Sicard, St. Louis
A.N. Sidawy, Washington DC
M. Sieggreen, Detroit
N. Skeik, Minneapolis
C.L. Skelly, Chicago
J.C. Stanley, Ann Arbor
B.W. Starnes, Seattle
E. Steinmetz, Dijon
C. Sternbergh, New Orleans
S. Stevens, Knoxville
P. Stone, Charleston
L-Z. Sun, Beijing
K.R. Suresh, Bangalore
R.K. Tripathi, Bangalore
G.R. Upchurch, Charlottesville
F.J. Veith, New York
J.A. Vergara, Santiago
T. Vidyasagar, Chennai
T.W. Wakefield, Ann Arbor
M.G. Walker, Manchester, U.K.
S-M. Wang, Guangzhou
Y-Q. Wang, Shanghai
Z-G. Wang, Beijing
F.A. Weaver, Los Angeles
J. Wei, Taipei
W.B. Yoshida, São Paulo
GUIDE FOR AUTHORS

Annals of Vascular Surgery, a bimonthly journal, invites original manuscripts reporting clinical and experimental work in vascular surgery for peer review.

Articles may be submitted for the following sections of the journal: Clinical Research (reports of clinical series, new drug or medical device trials) Basic Science Research (new investigations, experimental work) Basic Data Case Reports (reports on a limited series of patients) General Reviews (scholarly review of the existing literature on a relevant topic) Developments in Endovascular and Endoscopic Surgery Selected Techniques (technical maneuvers) Historical Notes (interesting vignettes from the early days of vascular surgery) Editorials/Correspondence

Contact details

Editor-in-Chief
Timothy M. Sullivan (Minneapolis, Minnesota)
E-mail: tmsullivanmd@gmail.com

Founding Editors
Ramon Berguer
Edouard Kieffer

Managing Editor
Camilla Davies
Telephone: 313-300-3410
E-mail: cdavies.avs@gmail.com

Paris Editorial Office
Pr O. Goau-Brissonni re
Service de Chirurgie Vasculaire
Hôpital Ambroise Par
9 avenue Charles de Gaulle
92100 Boulogne-Billancourt
France
Telephone : 33149095585
E-mail : olivier.goau-brissonniere2@orange.fr

Submission checklist

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

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:
Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print
Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• 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)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

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-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 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.

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 originality, your article may be checked by the originality detection service Crossref Similarity Check.

Preprints
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

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. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

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 an 'Exclusive 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 then this should be stated.

**Funding body agreements and policies**
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online.

After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

**Open access**
This journal offers authors a choice in publishing their research:

**Subscription**
- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

**Gold open access**
- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is USD 1700, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.

**Green open access**
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our green open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution’s repository after an embargo period. This is the version that has been
accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 12 months.

**Elsevier Researcher Academy**

Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

**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 English Language Editing service available from Elsevier's WebShop.

**Informed consent and patient details**

Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

**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.

Submission items include a cover letter (save as a separate file for upload), the manuscript (including title page, abstract, main text, references, tables and figure legends), and figures. Revised manuscripts should be submitted as 2 separate files, 1 clean copy of the revised manuscript and 1 copy with changes clearly marked. Revised manuscripts should also be accompanied by a unique file (separate from the cover letter) with responses to reviewers’ comments. The preferred order of files is as follows: cover letter, response to reviews (revised manuscripts only), manuscript file(s), table(s), figure(s). Files should be labeled with appropriate and descriptive file names (e.g., SmithText.doc, Fig1.tif, Table3.doc). Upload text and graphics (figures) as separate files. (You can compress multiple figure files into a Zip file and upload that in one step; the system will then unpack the files and prompt you to name each figure.) Do not import figures into the text document and do not upload your text or figures as a PDF. Complete instructions for electronic artwork submission can be found via a link on the journal home page. Your figures will be tested by an artwork quality check tool; you will be asked to view the results before you can complete your submission. Your figures can move into review if not up to production standards, but you should be prepared to provide better quality figures should we express interest in your manuscript.

The following format must be used for all submitted manuscripts:

-- The cover letter should provide (1) the category of manuscript (i.e., original report, brief clinical report, etc); (2) statement that the material has not been previously published or submitted elsewhere for publication and will not be sent to another journal until a decision is made concerning publication by Annals of Vascular Surgery; (3) information about any personal conflicts of interest of any of the...
authors; and (4) names of sources of outside support for research, including funding, equipment, and drugs. The cover letter should be submitted as a separate file. Any financial support whatsoever from industry must be acknowledged as a financial disclosure of all the authors in the cover. For instance, if a study is funded partially or totally by Industry, this needs to be stated clearly followed by a statement disclosing whether or not each author has any financial interest in the company (etc) funding the study. It will be the Editors’ discretion whether or not this represents too much of a conflict of interest to warrant publication.

-- The title page, the first element of the main manuscript file, should include the full name of author, the institution from which the work originated, and the exact and complete address, business and home telephone numbers, e-mail address, and fax number of the one author who will be responsible for correspondence, galley proofs, and reprint requests. Do not list academic titles on the title page.

-- A structured abstract must accompany the manuscript. (Note: Abstracts are not necessary for Historical Notes.)

Submit your article
Please submit your article via https://ees.elsevier.com/avs.

Form of manuscript
Manuscripts should be succinct. Manuscripts must be double spaced and formatted to include continuous line numbers. Omit well-known and previously published material. Introductions may contain interesting and relevant historical background, but such material should be inserted judiciously. Discussions should focus on the work at hand, including only those references that directly relate to the subject.

Manuscripts must conform to standard usage and are subject to editorial changes according to the policies of the journal. Generic names of drugs should be used whenever possible. State all measurements in metric units.


Body of paper should be organized in the following manner: Abstract, Introduction, Material and Methods, Results, Discussion, and Conclusion (note organization may vary according to category of manuscript). Acknowledgments of persons who have contributed to the scientific development or production of the manuscript. References, typed double spaced, sequentially in the order they appear in the text. Tables, typed double spaced on separate pages, and identified by Roman numerals in the order they appear in the text, including a brief descriptive title. Legends to illustrations, typed double spaced in numerical order.

Abbreviations must be spelled out the first time they are used. Abbreviations in the abstract are discouraged and should be kept to a minimum in the body of the text. Standard international units (SI units) should be used.

Data Analysis. Appropriate statistical methodology should be used when applicable. Engage the assistance of a biostatistician in the preparation of your data if necessary.

PREPARATION
Peer review
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of one independent expert reviewer to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor’s decision is final. More information on types of peer review.

Use of word processing software
It is important that the file be saved in the native format of the word processor 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 word
processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. 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). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

**Article structure**

**Subdivision - numbered sections**

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

**Introduction**

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

**Material and methods**

Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

**Theory/calculation**

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

**Results**

Results should be clear and concise.

**Discussion**

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

**Conclusions**

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

**Appendices**

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

**Essential title page information**

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. 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.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
• **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.

**Structured abstract**
A structured abstract, by means of appropriate headings, should provide the context or background for the research and should state its purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes and their statistical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations.

**Abbreviations**
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

**Acknowledgements**
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

**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, please include the following sentence:

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

**Units**
Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

**Math formulae**
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

**Artwork**
Electronic artwork
*Illustrations* should be submitted electronically. When submitting the illustrations electronically, please use either an EPS or TIF file format. Graphics software such as Photoshop and Illustrator should be used to create art. Figures submitted using presentation software such as PowerPoint, CorelDraw, or Harvard Graphics are not acceptable. *Color images need to be saved as CMYK, at least 300 dots per inch (dpi). Grayscale images should be at least 300 dpi. Line art (black and white or color) and combinations of grayscale and line art should be at least 300 dpi.* Make sure that the figure number is marked clearly on the figure or part of the electronic file name (i.e., Figure1.tif). Please note that once you create digital art at low resolution, you cannot adjust J76 You must create your art at the proper resolution (300 dpi) to begin with. For step-by-step instruction and screenshots on how to create your art correctly the first time, go to the link on the journal's welcome page.

Figures must be cited in the text and numbered in order of first mention.
Color Artwork
Figures must be cited in the text and numbered in order of first mention. *Annals of Vascular Surgery* has a limited budget for publishing print color at no charge to the author. Color illustrations that exceed our budget will incur, at the author's expense, a color charge of $650.00 for the first color illustration in a manuscript and $100.00 for every additional color illustration in the same manuscript. Please note that the figures in the online version of the Journal will be reproduced in color, free of charge.

Illustration services
*Elsevier's WebShop* offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

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.

Tables
Tables should be numbered in the order in which they are mentioned in the text, and given a brief, descriptive title. Omit all horizontal or vertical rules from the body of the table. Glossy prints and reduced versions of typewritten tables are unacceptable. All acronyms, abbreviations, and unusual units of measurement used in the title, headings, or body of the table should be fully explained in a footnote. For footnotes, use these symbols in sequence: *, †, ‡, §, [], ||, ¶, #, **, ††, superscript lowercase letters. If a table or any data therein have been previously published, a footnote to the table must give full credit to the original source.

References
Only references cited in the text should be included in the reference list; cite references in the text by superscript numbers. The reference list must be numbered according to the order of mention of references in the text. The list format should conform to that set forth in "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (Vancouver style) (http://www.icmje.org), except the first three authors are cited followed by et al. Do not cite as a reference any work that has not been published or accepted for publication. Manuscripts in preparation or submitted (but not yet accepted for publication) are not acceptable as a reference nor are oral presentations. Manuscripts fully accepted for publication but not yet published should be cited as "in press." Note that journal abbreviations must follow the style used in the Cumulated Index Medicus. For periodical references, give the surnames of authors and their initials, title of article, publication name, year, volume, and inclusive page numbers. For books, give the surnames of authors and their initials, chapter title (if applicable), editors' surnames and initials, book title, volume number (if applicable), edition number (if applicable), city of publisher, full name of publisher, year of publication, and inclusive page numbers of citation.

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 encouraged.

A DOI can be used to cite and link to electronic articles where an article is in-press and full citation details are not yet known, but the article is available online. 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.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

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:

Reference to a website:

Reference to a dataset:

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.' For further details you are referred to 'Uniform Requirements for Manuscripts submitted to Biomedical Journals' (J Am Med Assoc 1997;277:927–34) (see also Samples of Formatted References).

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

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.
**AudioSlides**
The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. More information and examples are available. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

**Data visualization**
Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

**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. To facilitate reproducibility and data reuse, this journal also encourages you to share your 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).

**Mendeley Data**
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. Before submitting your article, you can deposit the relevant datasets to Mendeley Data. Please include the DOI of the deposited dataset(s) in your main manuscript file. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.
**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.

**AFTER ACCEPTANCE**

**Online proof correction**
Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.
If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. 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. 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.

**Offprints**
The corresponding author, at no cost, will be provided with a PDF file of the article via e-mail (the PDF file is a watermarked version of the published article and includes a cover sheet with the journal cover image and a disclaimer outlining the terms and conditions of use). For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's WebShop. Authors requiring printed copies of multiple articles may use Elsevier WebShop's 'Create Your Own Book' service to collate multiple articles within a single cover.

**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