

# Acta Orthopaedica

Author Information

## Submission -> General

The review process assumes a high standard of English at submission (American spelling and usage are preferred by Acta), and due to the increasing volume of submissions, acceptance or publication of your article may incur unnecessary delays if this standard is not met. Even so, during recent years Acta Orthopaedica has been allocating increasing amounts of time to editorial work in order to help authors express their message clearly and succinctly. We hope to serve authors and readers alike by communicating solid observations at the expense of empty phrases. This trend is a natural evolution of scientific expression, which is necessary in the stiffening competition for attention. This does not mean that we prefer short articles – only that most articles become relatively short after removal of redundant, repetitive material.

Authors submitting a paper do so on the understanding that the work has not been published before in any language, is not being considered for publication elsewhere, and has been read and approved by all authors.

Although reviewer selection is ultimately the decision of the Editor, authors are encouraged to provide the names and email addresses of potential reviewers.

Previous or parallel publications on the same subject by the author(s) should be stated with the manuscript. This is necessary for two reasons, 1) to avoid double publications, and 2) to provide the reviewers with essential information.

## Submission -> Submission

Submit via online submission at <http://www.actaorthop.org>. You will be asked to create a user account and follow the step by step instructions, entering the pertinent information. Once you have created a user account, it will be available to you for all future submissions and will remember all the correspondent information that you previously entered.

For the article file upload section, the manuscript should be uploaded as a line-numbered PDF file with tables and figures embedded.

Online submissions are automatically uploaded into the editorial office's reviewer assignment schedule and are therefore processed immediately upon upload.

The pages should be double-spaced, numbered consecutively, and the first author's name should appear on all the pages.

The manuscript should be prepared according to Uniform Requirements for Manuscripts submitted to Biomedical Journals ([www.icmje.org/](http://www.icmje.org/)).

Authors submitting a paper do so on the understanding that it has not been published and is not being considered for publication elsewhere. The author(s) should provide a statement about previous submissions and reports that might be regarded as duplicate publication of the same or a similar paper.

Authors should provide a description of their individual contributions to the study at the end of the manuscript with the heading "Contributions of authors"

Reports of randomized controlled trials should comply with the CONSORT statement (see [www.consort-statement.org](http://www.consort-statement.org)).

Approval by the local ethics committee should be stated with date of issue and registration number.

All documents with original data of relevance to the submitted manuscript should be stored and be retrievable on request for a minimum of 10 years. Authors are encouraged to include a copy of raw data in electronic form and/or make these data available via the internet.

Authors of systematic reviews and meta-analyses are advised to consult the consensus statements QUORUM and statement (see [www.consort-statement.org](http://www.consort-statement.org)).

Approval by the local ethics committee should be stated with date of issue and registration number.

All documents with original data of relevance to the submitted manuscript should be stored and be retrievable on request for a minimum of 10 years. Authors are encouraged to include a copy of raw data in electronic form and/or make these data available via the internet.

## Submission -> Supplements

An article, a series of articles or a review of a series of articles may be accepted for publication as a supplement. This applies particularly to papers that have academic status, notably the doctoral thesis. The cost of publication is partly defrayed by Acta for members of the Nordic Orthopedic Federation, but even others may expect economic aid for particularly expensive procedures, for example, printing of color illustrations. Authors are requested, as early as possible, to contact the Editor who will provide the necessary information concerning eligibility and details concerning number of copies, cover, etc.

## The Manuscript -> Title page

Acta prefers titles that are expressive rather than neutral. The title should include information on the scope of the investigation, e.g., the number of patients, the average follow-up, animal or cadaver experiments. The first name, middle initial(s), and last name of each author should be given with indication of departmental affiliations. The email address of the author responsible for correspondence regarding the manuscript must be given.

## The Manuscript -> Abstract

The abstract should not exceed 250 words. The abstract should be structured in 4 parts: Background and purpose, Methods, Results, and Interpretation.

## The Manuscript -> Introduction

The nature of the problem should be briefly introduced with particular emphasis on the state of knowledge at the beginning of the investigation, followed by a clear description of the aims and the main hypothesis. The introduction should rarely exceed one typewritten page.

## The Manuscript -> Patients and Methods

It is important to specify exactly how the patients were selected. The patients must be described in detail so that there will be no questions about uncontrolled variables. Explain why some patients were dropped from the follow-up and whether or not they were representative of the primary series. For animals, the species, sex, age, breed, and physiologic state should be given. Describe in detail how the measurements were made and the techniques used.

## The Manuscript -> Ethics

When reporting experiments on human subjects, indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000. Papers including animal experiments or clinical trials must be accompanied by an approval by the local ethics committee. Please give date of issue and registration number.

## The Manuscript -> Results

The main outcome of the experiment or the observations should be reported with reference to tables and figures where the details are documented; information concerning significance and other statistical data should be given in the tables and figures. Do not give the same data in more than one way. When summarizing the data, always include measures of variability and the number of subjects. Give the median and range—e.g., 60 (35–70) years, the mean and standard deviation—59 (SD 15) years—and the frequencies for nominal data. The results of matched data should be given in relevant form (e.g., the distribution of pairwise differences). Percentages should not be used if the sample size is less than 100.

## The Manuscript -> Discussion

This section should contain a critical discussion of the results – e.g., the quality of the data (selection and information bias) and adequacy of the statistical analysis (confounding bias). It should also assess the relevant literature for or against the findings and if possible, the conclusions as regards clinical application or further research. Discuss, do not recapitulate, your results.

## The Manuscript -> Acknowledgements

### **Acknowledgements**

Technical help and financial or other sponsorship may be acknowledged.

### **Conflict of interest and funding**

Authors are responsible for recognizing and disclosing financial and other conflicts of interest that might bias their work. If any, they should be clearly stated in the manuscript on submission. When the manuscript is accepted for publication, all authors are asked also to sign a conflict of interest statement. When a commercial company is involved it is important to declare whether the company planned the experiment, took part in data collection, analyses, interpretation of data or writing of the manuscript.

## The Manuscript -> References

Acta Orthopaedica uses the Vancouver system of reference formatting. However, we prefer the references to be cited by name and year (chronologically) of publication in the article text instead of sequentially numbered references. Thus, the references should be ordered alphabetically.

The style and abbreviations of journals should follow the style used in Index Medicus, also accessible at <http://www.nlm.nih.gov>

### References in the text

One author: (Penning 1968).

Two authors: (Coonrad and Pohlman 1969).

Three or more authors: (Ishiguro et al. 1978).

Article—Coonrad R W, Pohlman M H. Impacted fractures in the proximal portion of the proximal phalanx of the finger. *J Bone Joint Surg (Am)* 1969; 51 (7): 1291–6.

Article in electronic format—Morse SS. Factors in the emergence of infectious diseases. *Emerg Infect Dis* [serial online] 1995 Jan–Mar [cited 1996 Jun 5]; 1(1): [24 screens]. Available from <http://www.cdc.gov/ncidod/EID/eid.htm>.

Book—Penning L. Functional pathology of the cervical spine: radiographic studies of function and dysfunction in congenital disorders, cervical spondylosis and injuries. Excerpta Medica Foundation, Amsterdam 1968.

Chapter—Allieu Y. External fixation in osteoarticular surgery of the hand. In: *The hand* (Ed. Tubiana R). W. B. Saunders Co. Philadelphia 1985; 2: 525–34.

## Statistics -> General Information

Statistical evaluation is a vital part of many communications. These guidelines have been written for the benefit of sound scientific work and to help authors prepare their manuscripts in accordance with good statistical standards. The guidelines are applicable to retrospective clinical studies as well as to experimental studies, randomized clinical trials and epidemiological studies. However, all aspects are not equally important for all types of studies. For instance, randomized clinical trials typically include a given number of patients based on calculations of statistical power. In exploratory experimental studies, the number of units studied may be based on other considerations, but may still be justified. The following general principles should also be followed: The investigator should ensure that his data are of high quality. All data should also be stored and retrievable at request. The use of a statistical method presupposes appropriate knowledge and understanding. Presentation of statistical results should focus on their clinical, not statistical, importance.

## Statistics -> Introduction

State clearly the aim of the study and the primary hypothesis.

## Statistics -> Patients and Methods

State the number of subjects studied and why this number was chosen. Describe the sources of subjects, how the subjects were selected and the inclusion or exclusion criteria that were employed. Present information on subjects who declined to participate, withdrawals and subjects with incomplete follow-up. Describe in detail how measurements were made and techniques used. All statistical methods should be mentioned and, when necessary, (for unusual methods) referenced; for every statistical result, the method used should be clearly described.

All tests should be two-sided, unless the use of one-sided tests is specifically justified. No data should be removed, imputed, weighted, adjusted or trimmed unless this action is specifically described and justified and its consequences are presented. Use non-parametric techniques when data have been measured on an ordinal scale or on an interval scale or non-normality is suspected and normality cannot be induced by transformation. In addition, for small unbalanced data sets with many ties or a poor distribution, exact methods may be needed to produce reliable result Matched data should be analyzed using conditional techniques, e.g. paired t-test, Wilcoxon's signed ranks test, McNemar's test or conditional logistic regression.

When measurements are repeated on the same subject, they should not be treated as independent observations; use repeated measures ANOVA or multilevel models. A possible alternative would be to summarize all values from each subject into an individual estimate of a clinically relevant entity, e.g. the magnitude of a peak value, area under curve, doubling time, etc., and then use these estimates as input in an analysis with one observation per subject. When multiple hypothesis testing is performed in a study with the aim of confirming a pre-specified hypothesis, care should be taken to avoid spurious significance by using techniques for simultaneous inference.

## Statistics -> Randomized Trails

Reports of randomized controlled trials should comply with the CONSORT statement (see [www.consort-statement.org](http://www.consort-statement.org)).

## Statistics → Results

When summarizing the data, always include measures of variability and the number of subjects. When presenting medians, describe also the range within parentheses, e.g., median age was 60 (35–70) years and when presenting means use standard deviation, e.g., mean age was 59 (SD 15) years. Present the frequencies for nominal data. Results from matched data should be presented in relevant form, e.g., the distribution of pairwise differences. Hypothesis tests (p-values) should be used in combination with a defined effect size and when statistical power has been considered. Present p-values with real numbers if these are greater than 0.001 (1 digit except zeros), otherwise use 'p < 0.001'. Do not use 'ns', 'p > 0.05' or asterisks. Use 95% confidence intervals in exploratory analyses and when estimating effects or differences.

## Statistics → Discussion

The discussion section should, when it is relevant, contain a critical discussion about the results. Questions like the quality of the data (selection and information bias) and the adequacy of the statistical analysis (confounding bias) should then be addressed.

## Tables

Use tables when the reader wants the exact values of more data than can be summarized in a few sentences in the text. Each table should be self-explanatory with an adequate title and a logical presentation of data.

Avoid repetitive words in the columns. Such data should be coded as figures or letters and the code explained in footnotes.

Never present the same data in more than one way; present data in the text, or in a table, or in a figure.

Each column heading for numerical data should include the unit of measurement applied to all the data under the heading. Choose suitable SI units, so that the values given in the table fall within the range 0–999. Large numbers can be expressed in smaller units with appropriate column headings.

Consider carefully the number of digits that should be used for your numerical findings. It is seldom indicated to use more than 2 digits for biologic measurements. Much time is spent in the editorial office crossing out meaningless decimals!

Most tables can be typed in a wordprocessor with tabulation. Avoid using the space bar to improve indentation. Avoid, if possible, spreadsheets (also the one in Microsoft Word) for production of tables because word wrapping in cells will be lost in the layout process, which increases the need for manual work and thus the risk of error in the production of proofs.

## Illustrations -> General Principles

Use a common word processor and put your manuscript in one file. Embed tables and illustrations in your word processor file for creation of a PDF file for online submission at <http://www.actaorthop.org>. After acceptance of your paper, a new upload of the revised manuscript illustrations will be required. If the file size is large you may then instead supply the illustrations (TIFF-, Photoshop- and EPS-files) separately on a CD. Name your files with manuscript number and figure number. Illustrations that are originally on paper should be marked and submitted for professional scanning.

## Illustrations -> Diagrams

Use a graphics programme that can export EPS-file for electronic submission. At first submission, embed your graphs in the word processor file, but save the EPS-files for final submission after acceptance.

Avoid frames around diagrams and diagrams with perspective drawing. Symbols should be consistent throughout a series of figures. Different types of connecting lines can also be used. Make diagrams in black-and-white, grey or colors but avoid complex patterns.

Axes should be equal in length to make the diagrams square. Each axis should be horizontally labeled with a description of the variable it represents. Use capitals only for the first letter in the first word. Use SI units. Make liberal use of scale markings, directed outwards, but identify only a few with numbers. Axes should not extend beyond the last numeral and never be terminated by arrows. If an axis is not continuous, this must be indicated by a clearly demarcated interruption. The axes print well when they are 9 cm long and 1 p wide and the scale markings 0.5 p wide. Labels should be sans serif letters (Arial or Helvetica) in 18 p. Numbers at the scale markings should then be 14 p.

If drawings or graphs are originally on paper only, scan them using bitmap (1 bit TIFF) and if appropriate aim at a 70 x 70 mm scan with at least 800 dpi resolution. File size will be >600 KiB but can be LZ compressed without quality loss. For line graphs do not use gray-scale.

## Illustrations -> Radiographs

Radiographs and other photographs should be cropped to present only what is essential. It is rarely necessary to show normal radiographs, even for purposes of comparison. Frontal and lateral projections should be in the same scale and density. Corresponding details—e.g., the joint space—should be at the same level. Radiological illustrations should be electronic. Aim at a picture size of approximately 50 x 70 mm with 300 dpi which gives an uncompressed file size of 500 KiB. Save this file for final submission after acceptance. Highlights, arrows and letters may be added but keep a clean version of the photo for the layout process. Acta prefers to add these as a separate layer.

## Illustrations -> Color Illustrations

Color illustrations should be used when available; the cost of color will be borne by Acta. A scanned picture or digital photo should usually be about 50 x 70 mm with a resolution of 300 dpi, which gives an uncompressed file size of 1.9 MiB. The preferred format is a TIFF-file or Photoshop. The resolution of a web illustrations (gif) is usually too poor. Color photos should be in CMYK colors. Highlights, arrows and letters may be added but keep a clean version of the photo for the layout process. Acta prefers to add these as a separate layer.

At final submission you will be asked to submit the uncompressed clean versions for publication.

## Illustrations -> Digital Illustrations

Digital illustrations should be used. A scanned picture or digital photo should usually be about 50 x 70 mm with a resolution of 300 dpi, which gives an uncompressed file size of 1.9 MiB in color and 500 KiB in gray-scale. A black and white drawing or graph may be scanned in 800 dpi bitmap, i.e. 1 bit TIFF. A 70 x 70 mm graph gives a file size of 600 KiB. The preferred format is a TIFF-file. The resolution of WEB illustrations (gif) is usually too poor. A too small file/picture or a highly JPEG compressed file may look acceptable on screen but can never be restored and thus prints poorly. If a photo needs to be highlighted with marks, letters and arrows it is better to do this in the production step. You may show this on a temporary illustration keeping the original clean for later use. If you would like to add highlights to your pictures, we recommend doing it in Adobe Photoshop, keeping the text and marks in a separate layer and saving it as an PSD file. It can also be done in the word processor and this will be used as a guide for production.

For digital graphs use a graphics program that can export EPS-files. Note that Harvard Business Graphics and some other programmes cannot export EPS and Microsoft EXCEL produces graphs that are fragmented and hard to convert to printable diagrams although

they are good for display purposes. As long as a graph is a well printed black-and-white line drawing it can always be scanned.

Please keep illustrations as separate files, e.g. EPS, TIFF or PSD. You should embed your illustrations in your PDF file, but should later be able to submit the original clean files on request. Use a CD for large files.