RESEARCH ARTICLE

running head: An abbreviated version of the title, not to exceed 60 characters/spaces

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# ABSTRACT

A one-paragraph abstract of not more than 250 words must accompany each manuscript. Longer abstracts may be subject to editorial truncation. The abstract should state what was done and why (including species and state of anesthesia), what was found (in terms of data, if space allows), and what was concluded. Even for short editorial-style articles, a brief "abstract" should be provided, if only to identify the topic (e.g., “This is an editorial summarizing recent new developments in physiology.”).

## **NEW & NOTEWORTHY**

This is a summary of what is new in your original research. Limited to 75 words.

**Keywords:** Alphabetically list three to five keywords, separated by semicolons. Spell out uncommon abbreviations (e.g., cardiovascular disease). Use the most important terms related to your paper for most optimal discoverability.

# INTRODUCTION

Provide a brief overview of the scope and relevance of the study, especially regarding previous advancements in related fields.

## Subheading level 2

Continuing text.

### Subheading level 3

Continuing text.

#### Subheading level 4 (if needed)

Continuing text.

# MATERIALS AND METHODS

Describe techniques, cell/animal models used (including species, strain, and sex), and lists of reagents, chemicals, and equipment, as well as the names of manufacturers and suppliers, including [**Research Resource Identifiers (RRIDs)**](https://scicrunch.org/resources) when possible. Also in this section, describe the statistical methods that were used to evaluate the data. See [**Rigor and Reproducibility Guidelines (PDF)**](https://journals.physiology.org/pb-assets/PDFs/APS_Rigor-Reproducibility-Guidelines-1620307615793.pdf) for more information.

All animal or human studies must contain an explicit statement that the protocols were submitted to, and approved by, an institutional review board or committee or that the protocols were performed under a license obtained from such a committee, board, or governing office (see [**Guiding Principles for the Care and Use of Vertebrate Animals in Research and Training**](https://www.physiology.org/career/policy-advocacy/policy-statements/care-and-use-of-vertebrate-animals-in-research?SSO=Y)). If clinical trials were used, a statement of registration is required.

# RESULTS

Present the experimental data and their statistical significance.

# DISCUSSION

Explain your interpretation of the data, especially compared with previously published material cited in the References. Significance and limitations may also be present.

Perspectives and Significance

This section is required at the end of all *AJP-Regulatory, Integrative and Comparative Physiology* DISCUSSION sections.

# APPENDIX

This section may be included in mathematical modeling or computational papers, e.g., to provide details of a solution strategy.

# GLOSSARY

This section is only included for equation-laden articles with many different symbols (such as mathematical modeling or computational papers). See [this article](https://doi.org/10.1152/advan.00171.2021) for an example.

Abbr. definition

# DATA AVAILABILITY

Provide a statement declaring where the source data can be found, including DOI / URL (accession number).

# SUPPLEMENTAL MATERIAL

List all cited Supplemental Figures, Tables, Audio, Videos, etc. and where they can be found, including DOI / URL (accession number).

# ACKNOWLEDGMENTS

This section is optional. This is where to thank people indirectly involved with the research (e.g., technical assistance, gifts of reagents, loans of equipment, suggestions during writing). Dedications of articles to persons living or deceased are not permitted. Do not include “promissory notes.” APS Journal policy is against inclusion of implicit or explicit promises that future work will be published.

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List the GRANTS, fellowships, and donations that funded (partially or completely) the research. Please include the grant identification number and the recipient’s name(s). Examples:

Funder One, Funder One Department, Grant/Award Number: 123456, 123457 and 123458 (to ABC); Funder Two, Funder Two Department, Grant/Award Number: 123459 (to BCD).

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Authors are required at the time of submission to disclose any perceived or potential conflict of interest, financial or otherwise. See [**Author Conflict of Interest**](https://journals.physiology.org/author-info.ethical-policies). If the article is accepted for publication, information on the perceived or potential conflict of interest, or lack thereof, must be noted in the Disclosures section.

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Such as for Government agency work.

# AUTHOR CONTRIBUTIONS

Identify which authors participated in the research: Conceived and designed research, performed experiments, analyzed data, interpreted results of experiments, prepared figures, drafted manuscript, edited and revised manuscript, approved final version of manuscript. The information must be the same as in the online submission site.

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References should be limited to published or accepted articles.

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* **EndNote template** can be downloaded [**here**](https://journals.physiology.org/pb-assets/Files/IFA/AmPhysiolSoc2021-1615564553677.ens) (first save the file to your computer (as it will not open directly) and then use EndNote to open the style and save it).
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# FIGURE LEGENDS

Describe the relevant details of the figure, placing it in the proper context of the manuscript. Legends should sufficiently describe the figure on their own, without reference to the main text. Define all abbreviations. See [**Rigor and Reproducibility Guidelines (PDF)**](https://journals.physiology.org/pb-assets/PDFs/APS_Rigor-Reproducibility-Guidelines-1620307615793.pdf) for more information.

# TABLES

Footnotes should appear below table with all symbols and abbreviations defined. Example:

**Table 1.** Effect of ANG II infusion on biomechanical properties of parenchymal arterioles

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Male** | | ***P* Value** | **Female** | | ***P* Value** | **Female** | ***P* Value** |
|  | **Sham** | **ANG II** |  | **Sham** | **800 ng/kg/min ANG II** |  | **1,200 ng/kg/min ANG II** |  |
| Wall stress, dyn/cm2 | 229.6 ± 21.4 | 274.2 ± 24.1 | 0.20 | 260.6 ± 12.9 | 267.4 ± 30.2 | >0.99 | 273.0 ± 16.9 | >0.99 |
| Wall strain | 0.195 ± 0.02 | 0.174 ± 0.02 | 0.47 | 0.202 ± 0.01 | 0.210 ± 0.02 | >0.99 | 0.178 ± 0.02 | 0.50 |
| Distensibility | 19.5 ± 1.5 | 17.4 ± 2.2 | 0.47 | 20.21 ± 1.2 | 21.0 ± 1.7 | >0.99 | 17.8 ± 1.5 | 0.50 |
| β-Coefficient | 12.2 ± 0.9 | 13.8 ± 1.1 | 0.31 | 13.0 ± 0.75 | 11.9 ± 0.88 | 0.49 | 12.6 ± 0.50 | 0.92 |

Values are means ± SE; n = 7–9. ANG II, angiotensin II. Comparisons made vs. same-sex sham controls at 40 mmHg by two-tailed Student’s *t* test (males) or one-way ANOVA with Bonferroni post hoc correction (females).