

**CENTRAL STATES CHAPTER OF THE AMERICAN COLLEGE OF  
SPORTS MEDICINE (CSACSM)**

**DIRECTIONS FOR ABSTRACT SUBMISSION**

**Directions:** Please carefully read over the directions and then complete the submission form, providing the information requested.

1. There is no fee to submit an abstract for the CSACSM annual meeting.
2. The submission deadline is Monday, September 11, 2017 by 5PM CST
3. Only electronic submissions will be accepted.
4. Submit the abstract form as well as the abstract (separate document). The abstract needs to be submitted as a word processing document (no pdfs), preferably Microsoft Word.
5. Save both documents as "FirstAuthorLastname\_CS17"
6. When complete, please submit the abstract and the form via our website <http://www.centralstatesacsm.org/abstractsubmission.html>
7. **Beginning this year (2017), all students will be required to create a poster of their abstract regardless of whether they are applying for the outstanding student research project. The winners of the outstanding student projects will present both an oral presentation as well as a poster of the same project at the conference.**
8. There are two award categories by which the abstracts will be judged: 1) The Central States Outstanding Student Research Award and 2) The President's Cup Challenge.
  - a. Central States Outstanding Student Research
    - i. Three awards will be presented: Undergraduate, Masters, PhD.
    - ii. There are no other materials to submit to be evaluated for the Outstanding Student Research Award. Students will choose whether they wish to be included in this competition by denoting so on the abstract form. All projects will be judged solely by their abstract.
    - iii. Winners of this award will present both orally and have a poster presentation.
    - iv. Winners will receive \$750 and a plaque. The monetary award is intended for deferring costs to the national ACSM convention.
  - b. The President's Cup Challenge
    - i. This competition is open to graduate students (Masters and PhD combined).
    - ii. All graduate student applications will be judged for this award.
    - iii. This award will be judged based off of both the abstract and poster presentation.
    - iv. First place will receive a \$1200 (2016 amount-may change) travel allowance and registration fee waiver for attending the ACSM Annual Meeting to present their research project.

## **Experimental Abstract Format:**

Abstract narratives are limited to 2,000 characters (not including spaces, title, author names, and institutional affiliations). If including table, chart or graph, character limit will be approximately 1,700 characters depending on the size of the table, chart, or graph.

1. The entire abstract must be typed using Microsoft Word using 1-inch margins, a Times New Roman font, and 12-point font size.
2. **The title of the abstract must be typed in UPPERCASE and in bold (15 word limit. Not counted in character count for abstract).**
3. The title must be succinct and informative.
4. On a new line, with a **2-space indent**, type the first and last names of the authors with Fellows denoted by FACSM. Do not include authors' titles or degrees. Include the institutional affiliations of all authors.
5. Denote status as authors with a superscript using the following code: \* = undergraduate, † = graduate (found in word symbol Latin extended B), ‡ (found in word symbol Latin extended B) = professional
6. Skip a line between the authors and the body of the abstract.
7. The text of the abstract must be single-spaced and one paragraph. A Table, chart or graph is permitted.
8. The abstract must be informative, and must include the specific subheadings of **PURPOSE:, METHODS:, RESULTS:, and CONCLUSION:** in uppercase and bold within the body of the abstract.
9. Abstracts must include data to substantiate the findings/conclusions being drawn. The lack of inclusion of data will result in the abstract being rejected.
10. Do not use brand names within the abstract.
11. Indicate any grant funding information at the bottom of the abstract (not counted in character count).
12. Abstracts may be submitted/presented both at the regional and national ACSM annual meetings.
13. You may only appear as first author on one abstract.
14. **Submissions that do NOT meet the above format instructions will not be accepted.** Please refer to the [sample abstract](#) provided.

*Note.* If multiple abstracts are being submitted from the same study, each abstract must have a unique title and purpose, and must include specific information in the methods, results, and conclusion that are directly related to the purpose. You may NOT use the exact same purpose and methods, etc. If the wording in the abstracts is verbatim, then that would qualify as plagiarism, and will result in the abstracts being rejected.

### **Clinical Case Abstracts:**

1. Abstract narratives are limited to 2,000 characters (not including spaces, title, author names, and institutional affiliations). If including table, chart, graph, or picture character limit will be approximately 1,700 characters depending on the size of the graph.

2. The abstract must be informative, and should include the following specific subheadings:

**HISTORY:** (to include the history of the present injury/illness, past medical history, medications, etc.)

**PHYSICAL EXAMINATION:**

**DIFFERENTIAL DIAGNOSIS:**

**DATA:** (to include diagnostic tests performed and results, etc.)

**FINAL WORKING DIAGNOSIS:**

**TREATMENT:**

**OUTCOME:**

*Please note that all other abstract format guidelines are the same.*

### **Expectations of Faculty Sponsor:**

1. Read over and comply the directions for abstract submission.
2. Work with the student author in the development of the abstract.
3. Complete a final proofread of the abstract prior to submission

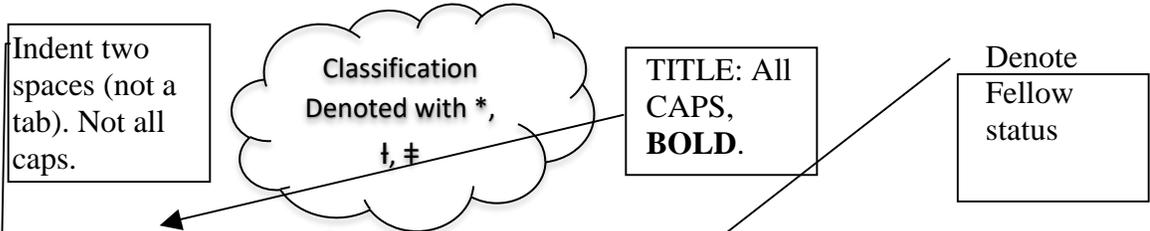
### Acceptance of the Abstract:

1. Abstracts will be forwarded to the President-Elect and Abstract Review Committee. This committee will review the abstracts and determine acceptance of the abstracts for poster presentations.
2. As soon as the Abstract Review Committee has completed its work, the lead author will be notified by email concerning the acceptance of the abstract and the date/time of the session.
3. If you do not receive a notification by October 4, 2017 please contact Dr. Adam Bruenger at [abruenger@uca.edu](mailto:abruenger@uca.edu)
4. The first author must present the abstract.
5. Posters should be 3'x4'

### Abstract Submission Checklist (Students and faculty sponsors should review this)

- Document is typed using Microsoft Word with 1-inch margins.
- The font is Times New Roman with a 12-point font size.
- The title of the abstract is typed in UPPERCASE and in bold (15 word limit).**
- The authors' information is listed correctly (indented two spaces).
- The authors' classifications is denoted using the correct symbols \* = undergraduate, † = graduate, ‡ = professional
- There is a line between the authors and the body of the abstract.
- The text of the abstract is typed single-spaced and in one paragraph with the following subheadings in (UPPERCASE and **bold**): **PURPOSE, METHODS, RESULTS,** and **CONCLUSION** (please refer to the section on clinical case studies for specific subheadings).
- The abstract includes data to substantiate the findings/conclusions.
- The abstract does NOT exceed 2,000 characters (not including spaces, title, author names, acknowledgements, and institutional affiliations). If including table, chart, graph, or picture character limit will be approximately 1,700 characters depending on the size of the graph.
- The abstract form is filled out and submitted with the abstract

## 1-inch margins on each side



### THE ROLE OF AGE-ASSOCIATED CHANGES IN SKELETAL MUSCLE ON BLOOD PRESSURE IN STANDING

Michelle M. Masterson<sup>Ⓢ1</sup>, Amy L. Morgan<sup>#2</sup>, FACSM, C. E. Multer<sup>11</sup>, & Charles A. Armstrong<sup>#1</sup> <sup>1</sup>University of Toledo, Toledo, Ohio; <sup>2</sup>Bowling Green State University, Bowling Green, Ohio

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Thirty percent of people aged 65 years and older living independently have experienced a fall. Muscle weakness, postural instability, and orthostatic hypotension (OH) have been identified as contributing factors to falls. However, the age-associated differences in these factors and the relationship between them is not clear. **PURPOSE:** Therefore, the purpose of this study was to investigate the differences in lower extremity (LE) muscle activity, LE volumetric measurements, blood pressure (BP), heart rate (HR), and postural sway between young and old individuals upon assuming an upright position. **METHODS:** Two groups of 10 healthy males (20-24 yrs. and 65-82 yrs.) volunteered for this study. BP and HR were measured during supine resting and LE volumetric measurements were obtained immediately after supine rest. Electromyographic (EMG) activity of bilateral gastrocnemius and tibialis anterior muscles was recorded during a one-repetition maximal isometric contraction, followed by a second resting period. Subjects then stood quietly for 15 minutes while BP, HR, EMG, and postural sway on a force platform were measured for 20 seconds each minute. **RESULTS:** Systolic, diastolic, and mean arterial BP of both groups significantly increased from supine values within one minute of standing (mean arterial BP: young = 86.5 to 96.9 mmHg, old = 100.3 to 114.0 mmHg). The BP variables remained elevated during the 15 minutes of standing with no instances of OH, despite a significantly attenuated HR response in the older group relative to the younger group (greatest mean HR recorded during 15 minutes of standing: young = 85 bpm, old = 73 bpm). There were no differences in EMG activity or postural sway between the two groups. **CONCLUSION:** Older subjects did not exhibit an increased incidence of OH, despite an attenuated HR response, nor did they demonstrate changes in postural sway or EMG activity. Therefore, it appears that BP is maintained by mechanisms other than changes in HR or LE muscle activity. Further research is needed to develop a better understanding of how LE muscle activity, BP maintenance, and postural instability interact as individuals age in order to develop effective interventions to reduce the incidence of falls in the older population.

Include table or graph here (centered) if applicable  
(Include grant support here if appropriate)

Check Character Count:

Do not exceed 2000 (not including spaces, title, author names, and institutional affiliations) /1700 if table or graph included.