

## **Research Presentation (5 pts of grade)**

You have up to 10 min

Presentation emailed to Dr. Kravitz by 12 midnight the night before you present.

All members of the group must do some meaningful part of the oral presentation.

**Presentation is without notes**

**Please Use RELEVANT**

**GRAPHICS**

# Title Slide

Name of your research project

Name of all authors

# Introduction Slide(s)

- Introduce audience to what your study is investigating.
- Highlight any background information/ research you feel would be helpful

# Purpose of the Study

- What is the purpose(s) of your study?
- What is your hypothesis for this study? You may have more than one hypothesis



# Purpose of Study

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- “To determine the effect of an acute bout of high-volume, full-body resistance training with eccentric contractions on REE and indicators of DOMS in RT and UT males.”





# Hypotheses

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“..Authors’  
Hypotheses..”

- ▶ We hypothesized that REE and DOMS would be significantly higher in UT males

# Significance of Study

- Why is this study important?



# Significance of Study

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- Very little evidence exists about resting energy expenditure and DOMS. This study will help to better understand this relationship.



# Methods: Be Detailed

- How did you conduct study?
- Describe subjects, tests, conditions, equipment, protocol, etc.
- Be specific (and succinct)
- Show meaningful pictures of what you did



# Methods

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- 16 male subjects were selected
- 8 untrained (UT) and 8 trained (RT)
- UT had no WT in last 6 months
- Resistance trained had minimum of 2 days/wk for 6 months

## Methods Cont.

- Hydrostatic weighing was used to determine body density
- Brozek et al. equation was used for determine fat-free mass (FFM)



## Methods Cont.



- 4-day dietary log (amount of food, food description, meal time)
- Nutritionist V was used to analyze intake



# Methods Cont.

- Muscle soreness was rated by using a rating of perceived muscle soreness scale (RPMS)
- Average of two scores was used as the value

## RPMS Scale

<b>None</b>	0
<b>Dull</b>	1
<b>Light</b>	2
<b>More than Light</b>	3
<b>Annoying</b>	4
<b>Severe</b>	5
<b>Intolerable</b>	6



# Resistance Training Protocol

<u>Rotation 1</u>	<u>Rotation 2</u>	<u>Rotation 3</u>
Chest Press	Lat Pull-Down	Should Press
Leg Press	Leg Curl	Leg Extension
Biceps Curl	Triceps Extension	



# Resistance Training Protocol

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# Methods Cont.

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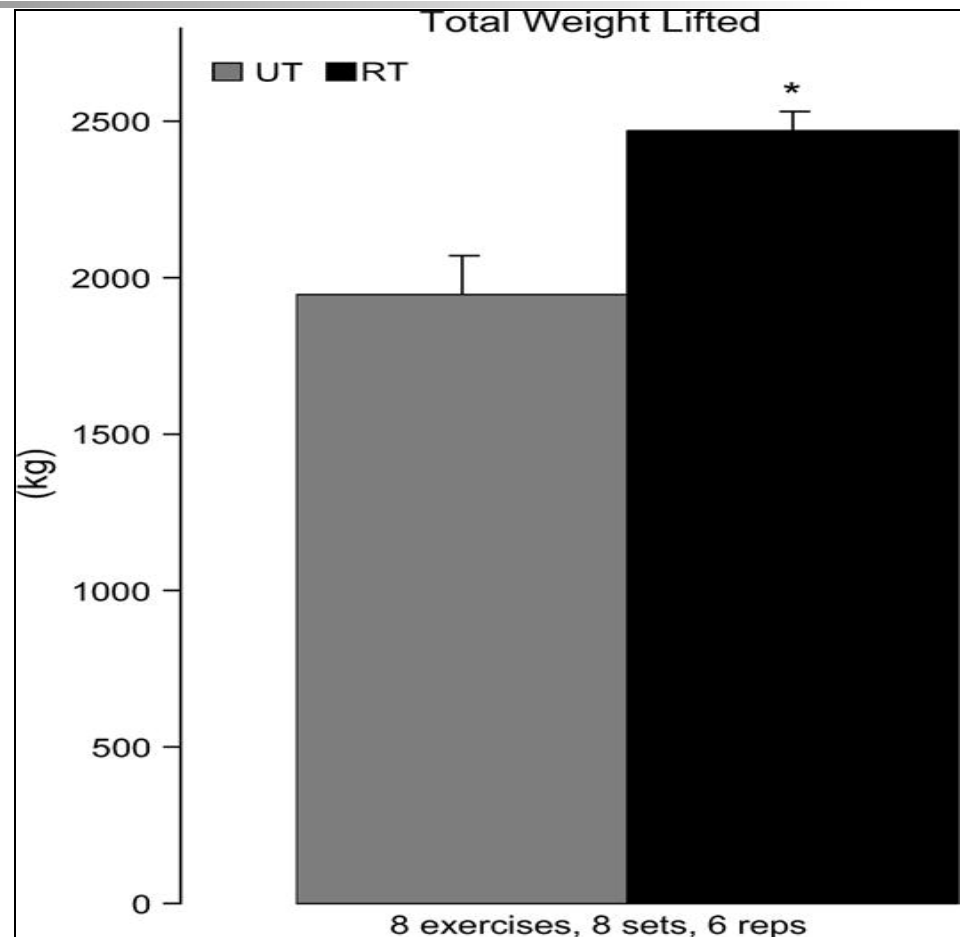
Full Body Workout	Day 1
REE Measurement	Day 1-4
DOMS Markers	Day 1-4
Body Composition	Day 1
Dietary Log	Day 1-4

# Results

- What are the results of the study? Use tables, charts, figures but **SHOW** results.
- **Class, USE PERCENT CHANGE**
- $$\frac{[\text{Pre-test}] - [\text{Post-test}]}{\text{Pre-test}}$$
- Flexibility numbers example:
- $$[2 \text{ inch}] - [3 \text{ inch}] = [1 \text{ in}]/[2]$$
- = 0.5 or 50% increase in flexibility

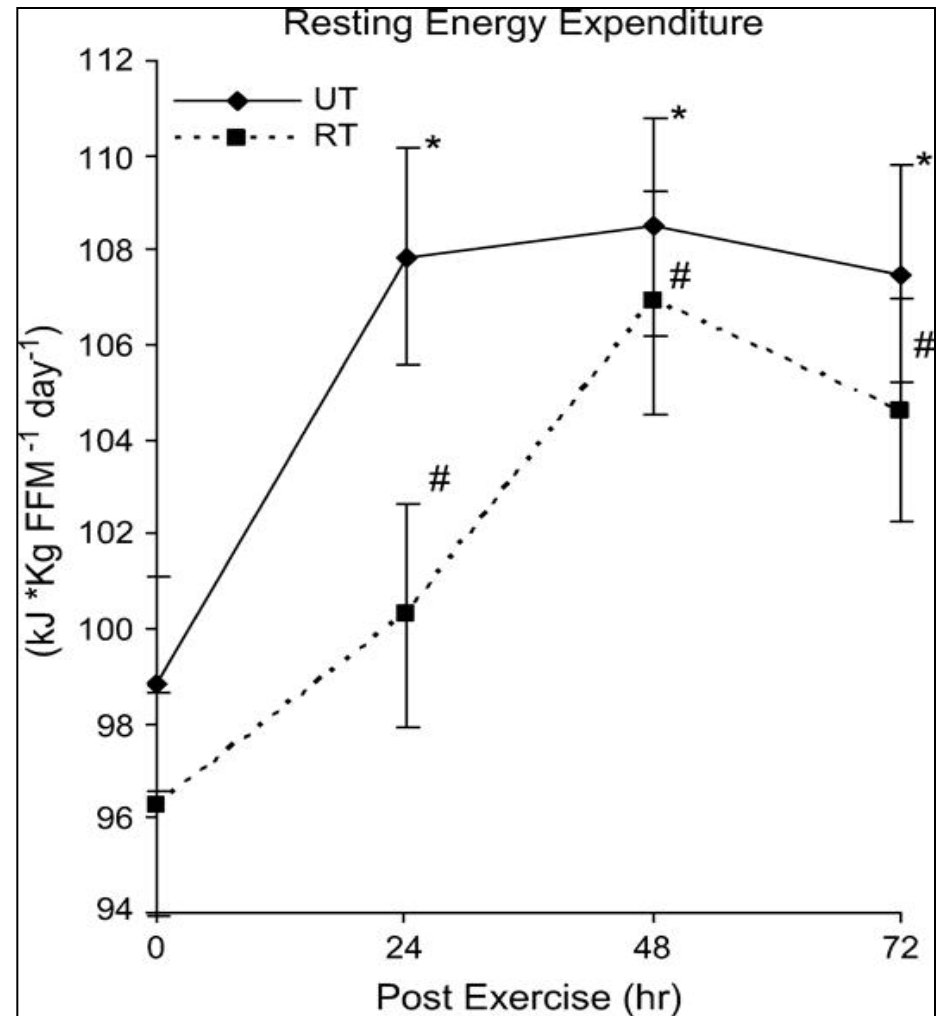
# Results

- Resistance trained participants lifted approximately **22%** more than untrained participants



# Results Cont.

- Average increase in REE in UT was 9.2% and 7.9% in RT.

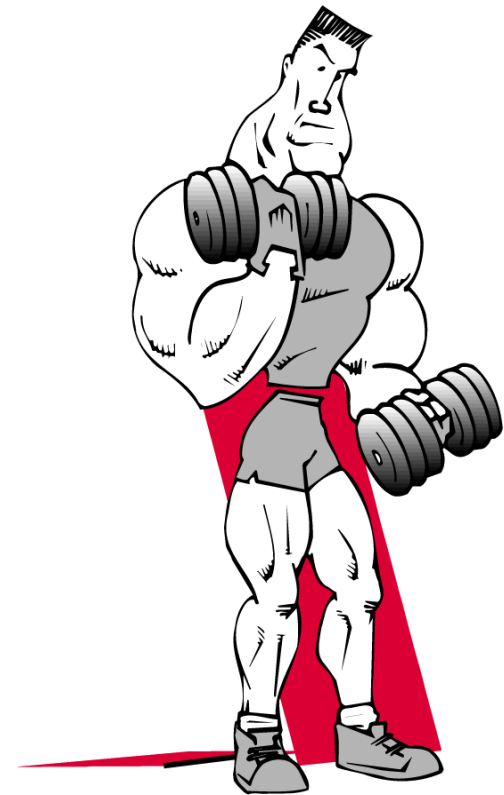


# Discussion

- Discuss what you found from this 4-week study.
- Did your findings support your original hypotheses.
- What do you consider meaningful about this study?

# Discussion

- REE can be significantly ( $p < 0.05$ ) elevated for up to 72 hours post-exercise in **both UT and RT males**





# Authors' Hypotheses Supported

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- We hypothesized that REE and DOMS would be higher in UT males: **Supported**



# Discussion

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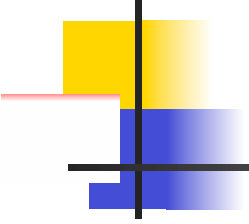
- Athletes, weight-lifters and bodybuilders aiming for hypertrophy need a positive energy balance
- May require additional caloric intake on training days and the days following.



# Recommendations Slide

- What changes would you do if you were to repeat this study or something similar.
- Please make this brief

## Recommendation



The authors believe that more research is required to understand the biological mechanisms contributing to D.O.M.S.

# Conclusion Slide

- Highlight main conclusions of study



## In Conclusion...

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- REE can be significantly ( $p < 0.05$ ) elevated for up to 72 hours post-exercise in both UT and RT males

Questions?  
Thank You

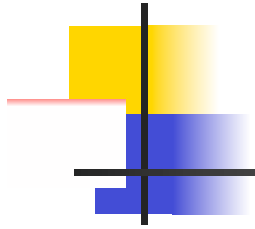
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Class,  
Dark Color  
Slide Idea!

# **Manuscript (1.5 or double space)**

- On the day you present give Jeremy and Dr. Kravitz your study manuscript. To include:
- Title of Study
- Authors
- Abstract: up to 150 words
- Introduction: up to 150 words
- Research hypotheses: One paragraph per hypothesis
- Methods: up to 200 words
- Results/Discussion up to 200 words (use graphs!)
- Conclusion: up to 150 words



Let's Sign Up Now  
for Presentation  
Dates



