

UNIVERSITI TEKNOLOGI MARA

**EFFECT OF CAFFEINE ON MUSCLE STRENGTH
AMONG SPORTS SCIENCE STUDENT**

MUHAMMAD HILMI BIN RUSLI

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TABLE OF CONTENTS

	Page
AUTHOR'S DECLARATION	i
LETTER OF TRANSMITTAL	ii
AFFIRMATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vi
LIST OF FIGURES	ix
LIST OF GRAPHS	x
LIST OF ABBREVIATIONS	xi
ABSTRACT	xii
CHAPTER 1: INTRODUCTION	
1.1 Background of the Study	1
1.2 Problem Statement	3
1.3 Research Objective	4
1.4 Research Hypothesis	4
1.5 Significant of Study	4
1.6 Limitation and Delimitation	
1.6.1 Limitation	4
1.6.2 Delimitation	5
1.7 Definition of Term	5

CHAPTER 2: LITERATURE REVIEW

2.1	Muscle Strength	6
2.2	Caffeine	9

CHAPTER 3: RESEARCH METHODOLOGY

3.1	Research Design	12
3.2	Sampling Technique	12
3.3	Subject	12
3.4	Material and Instrumentation	
3.4.1	Supplement	13
3.4.2	Bench Press Ruck and Olympic Bar	13
3.4.3	Back Squat Ruck and Olympic Bar	13
3.5	Test Procedure	
3.5.1	Testing Protocol	14
3.5.1.1	Bench Press	14
3.5.1.2	Back Squat	14
3.6	Data Collection Procedure	15
3.7	Data Analysis	16

CHAPTER 4: RESULT

4.1	Descriptive Statistic	17
4.2	Caffeine Group	18
4.3	Placebo Group	19

CHAPTER 5: DISCUSSION, RECOMMENDATION & CONCLUSION

5.1	Discussion	20
5.2	Conclusion	23
5.3	Recommendation	24
REFERENCES		24
APPENDICES		29

ABSTRACT

The purpose of this study is to determine the effect of caffeine on muscle strength among sports science student through pre-test and post-test experimental design. All subjects are healthy males aged between 18 to 25 years old and exercise regularly with resistance training was volunteer to participate. The study compared the differences between caffeine and placebo of 1RM bench press (BP) and back squat (BS). Paired T-test was used as this study included pre-test and post-test. During pre-test, all subjects performed two test which is 1RM BP and BS without any supplement, after result collected, randomized sampling technique was used to divide into two group whether experimental group (CAF) and control group (PLA). After a week, they were perform the bench press and back squat by consumed caffeine and placebo. Based on paired T-test result, there was no significant difference between CAF and PLA group of 1RM of BP and BS. The overall result is CAF group BP ($p=0.11$) and BS ($p=0.07$), PLA group BP ($p=0.44$) and BS ($p=0.14$). As a conclusion, this finding suggests caffeine does not effect on muscle strength among sports science student. Further studies may consider to increase the number of participant especially among experiences resistance trained man that involve several of year in strength training.

KEYWORDS: *Caffeine, Muscle Strength, Resistance Training, Bench Press, Back Squat*