

TABLE OF CONTENTS.

List of Tables	ix
List of Figures	xiv
CHAPTER	
I. INTRODUCTION.	1
Review of Literature	5
Effects of Caloric Restriction	
Effects of Low Carbohydrate Diets on Physiologic Function	
Low Carbohydrate Intake and Performance	
Statement of the Problem	18
Research Hypotheses.	19
Operational Definitions	22
Assumptions	22
Limitations	25
Significance of the Study.	23
II. METHODS	26
Subjects	26
Instrumentation and Techniques	26
Procedures.	29
Design	35
Data Analysis	35

III. RESULTS	35
Subjects	35
Diet.	38
Resting Measures.	40
Isokinetic Knee Extension Power.	44
Endurance Performance	44
Exercise Time	
Mean Heart Rate and Rating of Perceived Exertion	
Mean Oxygen Intake and Respiratory Exchange Ratio	
Blood Components During Exercise	
Urine Analysis	50
IV. DISCUSSION	53
Performance Parameters.	54
Isokinetic Torque of Knee Extensors	
Endurance Performance	
Substrate Metabolism	65
Anthropometric Changes.	74
Total Cholesterol and HDL-Cholesterol.	78
Urine Analysis	80
Summary.	83
Conclusions	86
APPENDIXES	87
A. Graphic Representation of Testing Sequence.	88

B.	Computational Formulas and Borg's Rating Scale	90
C.	Tables and Figures of Individual Values	94
D.	ANOVA Table for Variables Tested.	106
E.	Newman-Keuls Critical Difference Tables	131
F.	Letter of Informed Consent.	142
G.	Subject Synopsis	144
	REFERENCES	151