

1. Record Nr.	UNINA9910825652903321
Titolo	Body composition and physical performance : applications for the military services // Committee on Military Nutrition Research, Food and Nutrition Board, Institute of Medicine ; Bernadette M. Marriott, Judith Grumstrup-Scott, editors
Pubbl/distr/stampa	Washington, DC, : National Academy Press, 1992
ISBN	1-280-21187-3 9786610211876 0-309-55733-X 0-585-14431-1
Edizione	[1st ed.]
Descrizione fisica	xiv, 356 p. : ill
Altri autori (Persone)	MarriottBernadette M Grumstrup-ScottJudith
Disciplina	612/.042
Soggetti	Physical fitness Body composition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"S450"--T.p. verso.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Body Composition and Physical Performance -- Copyright -- PREFACE -- FOCUS OF THE REPORT -- HISTORY OF THE COMMITTEE -- COMMITTEE TASK AND PROCEDURES -- Acknowledgments -- Contents -- PART I OVERVIEW -- 1 Introduction and Background -- THE COMMITTEE'S TASK -- CURRENT PHYSICAL STANDARDS FOR ACCESSION AND RETENTION IN THE MILITARY -- Accession Standards -- Retention Standards -- PROCEDURES USED BY THE MILITARY SERVICES FOR FAILURE TO MEET PHYSICAL OR PERFORMANCE STANDARDS -- METHODS FOR ASSESSING BODY COMPOSITION -- Definition of Terms -- Anthropometric Measurements -- Densitometry -- Bioelectric Impedance Analysis -- Options Requiring Major Equipment Or Time -- FACTORS THAT MAY INFLUENCE BODY COMPOSITION -- Age -- Gender -- Race and Ethnic Group -- BODY WEIGHT, COMPOSITION, AND PHYSICAL PERFORMANCE -- Does Being Overweight Impair Military Performance? -- Running ability, sit-ups, and push-ups -- Load Carrying Ability and Lifting -- RELATIONSHIP OF

LEAN BODY MASS VERSUS BODY FATNESS TO PERFORMANCE OF PHYSICAL TASKS -- RELATIONSHIP OF BODY COMPOSITION AND INJURY -- RELATIONSHIP OF BODY COMPOSITION TO HEALTH -- BODY COMPOSITION AND MILITARY APPEARANCE -- ASSESSING BODY COMPOSITION FOR INDIVIDUALS WHO FAIL TO MEET MILITARY STANDARDS -- COMMENTS ON BODY COMPOSITION STANDARDS -- References -- 2 Conclusions and Recommendations -- CONCLUSIONS -- RECOMMENDATIONS -- AREAS FOR FUTURE RESEARCH -- PART II INVITED PAPERS -- 3 Body Composition And Military Performance: Origins Of The Army Standards -- INTRODUCTION -- THE CURRENT ARMY WEIGHT CONTROL PROGRAM: POLICY AND GOALS -- THE DEVELOPMENT OF MILITARY ACCESSION STANDARDS -- Physical Standards In Relation To The Demand For Soldiers -- Early Scientific Investigations Of Soldier Physique -- Standards Of Physique In The Civil War: Eye Of The Physician -- Published Standards For Physician Guidance.

WORLD WAR II HEIGHT-WEIGHT STANDARDS -- Development Of Current Accession Standards -- RETENTION STANDARDS IN THE MILITARY -- Potbellies And The Army Weight Control Program -- DEPARTMENT OF DEFENSE DIRECTIVE 1308.1 AND THE U.S. ARMY BODY FAT STANDARDS -- Development Of Army Body Fat Equations -- References -- 4 Body Composition In The Military Services: Standards And Methods -- BACKGROUND -- BODY COMPOSITION STANDARDS -- Body Composition And Physical Performance -- Body Composition And Appearance -- Body Composition And Health -- BODY COMPOSITION MEASUREMENT -- Reliability And Trainability -- Equation Validity -- U. S. Army -- U.S. Navy -- U.S. Marine Corps -- U.S. Air Force -- Cross-Validation -- SUMMARY -- References -- 5 Effects of Experimental Alterations in Excess Weight On Physiological Responses To Exercise and Physical Per ... -- INTRODUCTION -- EXCESS WEIGHT, AEROBIC CAPACITY AND RUNNING PERFORMANCE -- RUNNING PERFORMANCE, METABOLIC RESPONSES AND GENDER DIFFERENCES -- PHYSICAL PERFORMANCE, BODY FAT AND WOMEN ATHLETES -- References -- 6 Army Data: Body Composition and Physical Capacity -- INTRODUCTION -- DESIGN AND METHODS -- RESULTS -- Body Composition and Performance Capacity Related To Age -- Performance Capacity in Relation To Body Composition -- Relationship To Fitness Standards -- DISCUSSION -- References -- 7 The Relationship Of Body Size And Composition To The Performance Of Physically Demanding Military Tasks -- INTRODUCTION -- Associations Among Body Fat, Load Carriage Ability, And Running Performance -- Association Of Lean Body Mass With Military Performance -- Discussion And Conclusions -- References -- 8 New Approaches To Body Composition Evaluation And Some Relationships To Dynamic Muscular Strength -- NEW APPROACHES TO BODY COMPOSITION EVALUATION -- Estimating Excess Body Fat From Changes In Abdominal Girth. Calculation Of Excess Abdominal Girth -- The Ag Method During Body Mass Loss By Exercise Plus Diet -- The Ag Method During Body Mass Loss By Diet Only -- THE BODY PROFILE: AN ENHANCEMENT OF THE SOMATOGRAM -- Original Somatogram Calculations -- Ponderal Somatogram Calculation -- SOME RELATIONSHIPS TO DYNAMIC MUSCULAR STRENGTH -- Experimental Procedures -- Anthropometric Assessment -- Calculations -- Results -- Anthropometry -- Correlations -- ACKNOWLEDGMENTS -- References -- 9 Associations Among Body Composition, Physical Fitness, and Injury in Men and Women Army Trainees -- INTRODUCTION -- TWO ARMY STUDIES OF BODY COMPOSITION, FITNESS, AND INJURY -- Methods -- Subjects -- Prescreening Measures -- Medical Follow-Up -- Physical Training --

Analysis -- Results -- Correlation of Percent Bf and Body Mass Index -- Past Activity Level and Body Composition -- Body Composition and Physical Performance -- Prediction of Endurance Performance -- Injuries -- Body Composition And Injury -- Physical Fitness And Injury -- Physical Activity And Injury -- Gender, Physical Fitness And Risk Of Injury -- Discussion -- Correlation Between Body Composition And Physical Fitness -- Predicting Endurance -- Risks Of Injury -- Association Between Body Composition And Risk Of Injury -- Association Of Physical Fitness With Risk Of Injury -- Association Of Physical Activity And Risk Of Injury -- Gender, Physical Fitness, And Risk Of Injury -- Conclusion -- References -- 10 Body Composition, Morbidity, And Mortality -- INTRODUCTION -- METHODS OF MEASURING BODY COMPOSITION -- ACCURACY OF MEASUREMENTS -- USING A FOUR-COMPARTMENT MODEL FOR STUDIES OF BODY COMPOSITION -- ASSOCIATIONS AMONG BODY COMPOSITION, DISEASE AND DEATH -- Bone -- Fat-Free Mass -- Excess Adipose Tissue -- Measuring Body Fat -- Distribution Of Body Fat In Adults -- SUMMARY -- ACKNOWLEDGMENT -- References.

11 Critique of the Military's Approach To Body Composition Assessment and Evaluation -- APPROACHES -- DISCUSSION -- CONCLUSIONS AND RECOMMENDATIONS -- References -- 12 Body Composition and Performance in Relation To Environment -- DEFINITION OF OBESITY -- PERFORMANCE IN COMFORTABLE CLIMATES -- Physical Performance -- Resting Metabolism -- Endurance Activities -- Lifting and Carrying -- Underwater Activity -- Size Problems -- Poor Health -- OTHER IMPLICATIONS OF OBESITY -- HOT AND COLD ENVIRONMENTS -- CONCLUSIONS AND RECOMMENDATIONS -- References -- 13 Sex Differences and Ethnic/Racial Differences in Body Size and Body Composition -- SEX DIFFERENCES IN BODY SIZE AND BODY COMPOSITION -- ETHNIC AND RACIAL DIFFERENCES IN BODY MASS AND BODY COMPOSITION -- RELEVANT EPIDEMIOLOGIC ASPECTS OF FATNESS AND FITNESS -- ACKNOWLEDGMENTS -- APPENDIX -- PART III COMMITTEE DISCUSSION PAPER -- 14 Body Composition Measurement: Accuracy, Validity, and Comparability -- BACKGROUND -- METHODS AND ASSUMPTIONS -- Measurement and Definitions in Body Composition -- Obesity Prevalence, Age Effects and Weight Fluctuations -- Population Based Data -- Individual-Based Data -- RESEARCH APPLICATIONS -- SUMMARY -- References -- APPENDIXES

-- A Accession Standards for the Military Services -- U.S. Army -- Chapter 2 Physical Standards for Enlistment, Appointment, and Induction -- 2-1. General -- 2-2. Application and Responsibilities -- a. Application. -- 2-21. Height -- 2-22. Weight -- 2-23. Body Build -- U. S. Navy -- (4) Navy Health and Physical Readiness Program -- B Retention Standards for the Military Services -- U.S. Army -- Section I Introduction -- 1. Purpose -- 2. References -- 3. Explanation of Abbreviations and Terms -- 4. Objectives -- Section II Responsibilities -- 5. General -- Section III Weight Control -- 20. Policy -- 21. Procedures -- 22. Reenlistment Criteria.

Ar 600-9 Update: Appendix B Standard Methods For Determining Body Fat Using Body Circumferences, Height And We ... -- B-1. Introduction -- B-2. Height and Weight Measurements -- B-3. Description of Circumference Sites, and Their Anatomical Landmarks and Technique -- B-4. Circumference Sites and Landmarks for Males -- B-5. Circumference Sites and Landmarks for Females -- B-6. Preparation of the Body Fat Content Worksheets -- B-7. Steps For Preparing the Male Body Fat Content Worksheet, DA Form 5000-R, Dec 85 -- Step 1. Abdominal Measurement -- Step 2. Neck Measurement -- Step 3. Average Abdominal Measurement -- Step 4. Average Neck

Measurement -- Step 5. Abdomen-Neck Difference -- Step 6.
Abdomen-Neck Factor -- Step 7. Height Factor -- Step 8. Percent Body
Fat -- B-8. -- Step 1. -- Step 2. Height Factor -- Step 3. Hip
Measurement -- Step 4. Forearm Measurement -- Step 5. Neck
Measurement -- Step 6. Wrist Measurement -- Step 7. Hip Factor --
Step 8. Forearm Factor -- Step 9. Neck Factor -- Step 10. Wrist Factor
-- Calculations -- Line C. Addition Of Weight And Hip Factors -- Line
H. Addition Of Height, Forearm, Neck, And Wrist Factors -- Line I.
Percent Body Fat -- U.S. Navy -- Body Composition Determination
Procedure -- U.S. Air Force -- Chapter 1 -- Chapter 2 Air Force Weight
Program -- Section A-The Weight Program -- 2-1. Introduction. -- 2-
2. The Weight Program: -- 2-13. Individual Responsibilities. -- Section
C- Weight Standards and Maximum Allowable Weight (Maw) Standard
Adjustments -- 2-15. Weight Standards. -- 2-16. Maximum Allowable
Weight (MAW) Standard Adjustments. -- 2-17. Appeal Procedures for
MAW Adjustments. -- Section D- Weight Program Requirements -- 2-
18. Weight Program Requirements. -- 2-19. Weight Checks, Height
Measurements, and Scale Calibration:.
2-20. Permanent Change of Station (PCS) or Permanent Change of
Assignment (PCA) Procedures.
