Introduction. The overall objective of this honors thesis was to thoroughly examine the time spent in non-exercise and exercise-related physical activity (PA) modes and intensities and changes in activity patterns among pregnant women during their second and third pregnancy trimesters according to pedometer-determined parameters. Methods. Pregnant women (N = 36) wore a Yamax Digiwalker SW-701 Pedometer and completed the Previous Day Physical Activity Recall, a self-reported PA questionnaire that assessed the time spent in both non-exercise (e.g., work, transportation, sleeping, bathing) and exercise-related (e.g., jogging, walking, swimming) activities and the perceived intensity (mild, moderate, or vigorous) of these activities at both 20- and 32-weeks gestation. Women were categorized into the following three activity groups based on their average daily step count measured over a 3-day period at 20- and 32-weeks gestation: active (7,500+ steps/day), low-active (>7,499 steps/day), and transitioned to low-active (7,500+ steps/day at 20-weeks gestation, >7,499 steps/day at 32-weeks gestation). It was hypothesized that active women would show little to no changes in non-exercise and exercise-related physical activity behaviors from 20- to 32-weeks gestation, while low-active women would decrease mild intensity non-exercise physical activity behaviors, and transitioned to low-active women would decrease in moderate and vigorous intensity non-exercise and exercise-related physical activity behaviors. It was also hypothesized that the active group would spend more time in moderate and vigorous non-exercise and exercise-related physical activity than the low-active group. Results. Consistent with the hypothesis, women in the active group showed no significant changes in non-exercise and exercise-related physical activity behaviors from 20- to 32-weeks gestation, while women in the low-active group at both time points engaged in significantly less mild nonexercise physical activity at 32-weeks. Women who were categorized as active at 20-weeks but low-active at 32-weeks showed a decline in moderate intensity non-exercise physical activity behaviors across this period, further supporting the hypothesis. Low-active women spent significantly less time in moderate and vigorous exercise-related physical activity, and vigorous intensity non-exercise physical activity than active women, providing partial support for the hypotheses. Conclusion. These findings suggest that women of various activity levels may differentially alter their physical activity behaviors during pregnancy. For example, low-active women may prefer to decrease their mild intensity non-exercise physical activity, while those women in the transitioned to low-active group decrease their levels of moderate and vigorous non-exercise and exercise-related physical activity. Further understanding of these differences is necessary to optimize intervention strategies to increase physical activity during pregnancy.

"Designed as an informational resource for patients, Your Pregnancy and Childbirth: Month to Month Seventh Edition sets forth current information and clinical opinions on subjects related to women's health and reproduction. Your pregnancy and Childbirth: Month to Month is a resource for informational purposes. Topics include getting ready for pregnancy choosing an obstetric care provider what to expect during each month of pregnancy exercise during pregnancy work and travel during pregnancy pain relief during childbirth labor and delivery cesarean delivery postpartum care and taking care of the baby after birth, birth control after pregnancy."
engage in physical activity (PA) to mitigate adverse outcomes. Differences may exist among pregnant women of diverging diabetes status in meeting national PA recommendations. Methods: The sample (n=9,597) included pregnant women ages 18-44, who participated in 2011, 2013, 2015, and 2017 Behavioral Risk Factor Surveillance System. Levels of DRS were no diabetes (ND), high risk for diabetes (HRD) due to self-reported gestational diabetes or pre-diabetes, and overt diabetes (DM). Odds ratios (ORs) for meeting PA recommendations were obtained. Covariates included age, race, education, household child count, alcohol consumption, and smoking status. Results: Findings revealed that on average, group DM had 46.5 fewer minutes of weekly AA compared to group ND. Furthermore, a significantly lower OR (0.39; P Conclusion: We observed pregnant women with overt diabetes have a lower likelihood of engaging in PA, while group HRD was similar in their PA engagement as group ND. Solutions should be explored for improving PA participation in pregnant women with diabetes so that they may also enjoy the health benefits. Actions include increasing PA promotion by clinical providers, implementing methods for overcoming barriers to PA, and exploring strategies to make exercise palatable to this population.

A simple, easy-to-follow guide for staying fit while pregnant and shedding the post-baby pounds after! Being a mom is the toughest job in the world. It's difficult to take time for yourself. Now, in How to Exercise When You're Expecting, even the busiest moms can learn how to stay strong and fit during their pregnancy and lose the post-baby weight after. Lindsay Brin, a women's fitness expert and creator of #1 best-selling Moms Into Fitness DVD series, shares insider tips to: - Understanding and tackling food cravings - Exercises that are safe to perform during different stages of pregnancy - Preparing for labor through relaxation and yoga techniques - How your body and metabolism changes after childbirth - Keeping fitness and nutrition a priority when time is scarce Battle-tested through Lindsay's own pregnancies, How to Exercise When You're Expecting offers a before, during, and after guide that will get moms back in pre-baby shape or better.

Are you intrigued by the idea of working out during pregnancy, but think it can’t be safe? Are you unsure how the words fit and pregnancy actually make sense in the same sentence? If so, you’ve come to the right place. This easy-to-follow guide shows you how you can be fit and pregnant, whether you’re new to exercise or have been working out for years, and whether you’re in your second week of pregnancy or your 32nd. Fit Pregnancy For Dummies is for you if you’re pregnant, if you’re thinking about becoming pregnant, and You want to be as fit and healthy as you can be—whatever your current fitness level— without in any way jeopardizing your health or the health of your baby. This guide gives you the straight facts on: Staying safe when you exercise: Developing a plan with your health provider Choosing the right equipment: Modifying your routine for each trimester Eating well for nine months and beyond: From yoga and swimming to weight training, aerobics, and much more, you’ll see how to get started with a fun, step-by-step fitness routine that will make your entire pregnancy easier to manage. Postpartum expert and prenatal fitness instructor Catherine Cram and fitness expert Tere Stouffer Drenth give you the scoop on the activities that work best for pregnant women and how to set up a routine that works best for you. You’ll understand how a fit pregnancy helps you with delivery and postpartum shape-up. Plus, you get expert advice on activities to avoid, eating well, and staying motivated during and after your pregnancy, as well as: Dressing comfortably for your workout: Warm-up and stretching to increase flexibility and avoid injury: Modifying your exercise routine for giving birth: Finding the time for exercise: Understanding and tackling food cravings: Exercising that are safe to perform during different stages of pregnancy: Preparing for labor through relaxation and yoga techniques: How your body and metabolism changes after childbirth: Keeping fitness and nutrition a priority when time is scarce: Battle-tested through Lindsay's own pregnancies, How to Exercise When You’re Expecting offers a before, during, and after guide that will get moms back in pre-baby shape or better.

Explains the effects of regular exercise on all phases of pregnancy and offers guidelines for developing an exercise program. This Research Topic of Frontiers in Physiology is dedicated to the memory of Professor Nigel Stepto, the Lead Guest Editor of this collection, who sadly passed away during its formation. Prof Stepto was a passionate and recognised world leader in the field of Exercise Physiology with outstanding contributions, particularly in the area of women’s reproductive health. Nigel’s research passion was in understanding the mechanistic effects of exercise for health and therapy with a special interest in insulin resistance and Polycystic Ovary Syndrome, the leading cause of anovulatory infertility in young women of reproductive age. He was the co-Deputy Director - Research Training at the Institute of Health and Sport (IHeS) at Victoria University, Melbourne, Australia and held adjunct associate professorial roles at Monash University and the University of Melbourne. He was Chair of the Exercise and Sports Science Association (ESSA) Research Committee, Project Director of the Australian Institute for Musculoskeletal Science (AIMSS) and an active member of the Australian Physiological Society (AuPS). Alongside his influential research career and leadership roles, Nigel was a strong advocate for postgraduate and early career researchers. His collaborative nature and approach to research ensured those mentored by him were considered, included and valued members across his many research projects and initiatives. Nigel’s impact and influence on the careers of early researchers will continue at Victoria University with both a Nigel Stepto Travel Award and Nigel Stepto PhD Scholarship established in his honour. Nigel was great friend and colleague to many who is very much missed. Nigel is survived by his wife, Fiona and two children Matilda (14 years) and Harriet (11 years). Vale, Professor Nigel Stepto (12 September 1971 – 4 February 2020).
promotion measures in pregnant women. It will provide medical, sports, and fitness professionals both with the knowledge needed to allay undue fears regarding the consequences of exercising during pregnancy and with the practical expertise to offer optimal guidance on exercising to pregnant exercisers and athletes. Readers will find up-to-date evidence on the psychological, social, physiological, body composition, musculoskeletal, and biomechanical changes that occur during pregnancy and their implications for physical activity and exercise. Detailed descriptions are provided of the components of exercise testing and prescription for pregnant women, the current evidence-based and practice-oriented guidelines, and exercise selection and adaptation during pregnancy. Exercises specifically targeting musculoskeletal health are discussed separately, and a concluding chapter explains the nutritional requirements in pregnant women who exercise.

This book investigates the growing and ever-changing health issues for girls and women who lead an active lifestyle and participate in sports and exercise. Easy to read, the volume provides an educational foundation for understanding how disordered eating, amenorrhea, and osteoporosis can be interrelated while also looking at image disorders and reproductive health. It contains thorough analysis of common prevention and management techniques, and provides useful links to resources on the internet for additional screening tools.

In contemporary Western society, the messages regarding exercise during pregnancy are conflicting and confusing. Long-standing cautions about the dangers of over-exertion intermingle with entreaties to engage in moderate physical activity in order to have a healthier baby with a reduced risk of developing various chronic diseases. These medical messages then co-mingle with advice from family and friends as well as with images of the fit, pregnant "yummy mummy" circulating in popular culture. The purpose of this dissertation is to trace history, untangle meanings and demonstrate shifting "truth" claims about the active pregnant body, also considering how the various messages in circulation might be experienced as simultaneously empowering and oppressive by their intended audience, the pregnant woman. With these goals in mind, I draw upon the Foucauldian tools of archaeological and genealogical analysis to examine how knowledge regarding exercise during pregnancy has been produced over the past century, and how the messages put forth by the medical profession (and circulating within consumer culture) have functioned to regulate the activities of pregnant women. I also enlist the analytical tool of 'governmentality' (Foucault, 2003; O'Malley, 2008) to examine the place of exercise during pregnancy within the larger governmental apparatus of Western society over the past century. This approach provides a key insight as to why the ideas and messages about physical activity and pregnancy are so confusing since the late nineteenth century, exercise during pregnancy has been framed as both a problem and a solution to the larger biopolitical aims of governance, aims which themselves have changed from a concern with the collective strength of the nation-state to a (neo-)liberal concern with the cost of unhealthy bodies. By situating maternal exercise within the larger governmental complex and closely examining the 'rules of formation' that allow particular statements (at cer.

Your journey through a comfortable, safe, and confident pregnancy begins with Pregnancy Fitness. This practical guide answers your questions and delivers the information, exercises, and workouts you need to maintain your personal fitness and enjoy the best possible experience in welcoming your baby to the world. Written by three experts in prenatal and postpartum fitness, pelvic floor exercise, and core restoration, Pregnancy Fitness covers all physical and physiological aspects of pregnancy, birth, and recovery so you can enjoy peace of mind throughout your pregnancy and long after delivery. You’ll get complete need-to-know information about hormones, body and posture changes, and common pregnancy aches and pains, along with critical information on diastasis recti and pelvic floor health, which aims to support and protect your body from core dysfunction. A full spectrum of stretching, strengthening, and functional exercises provides the focus, description, safety tips, and variations that allow you to progress safely through your pregnancy and to be physically prepared for birth and optimal recovery. The sample workout programs guide you through each phase of pregnancy, including postpartum, to help you establish and meet your personal fitness goals with confidence. CE exam available! For certified professionals, a companion continuing education exam can be completed after reading this book. The Pregnancy Fitness Online CE Exam may be purchased separately or as part of the Pregnancy Fitness With CE Exam package, which includes both the book and the exam.

(1E 1986) Physiological adaptations to pregnancy physiology of exercise during pregnancy practical applications.

Book description to come.

Is there a sufficient evidence base for the U.S. Department of Health and Human Services (HHS) to develop a comprehensive set of physical activity guidelines for Americans? To address this question, the Institute of Medicine (IOM) held a workshop titled "Adequacy of Evidence for Physical Activity Guidelines Development" in Washington, DC on October 23-24, 2006, sponsored by HHS. The workshop summary includes the presentations and discussions of more than 30 experts who were asked to consider the available evidence related to physical activity and the general population, as well as special population subgroups including children and adolescents, pregnant and postpartum women, older adults, and persons with disabilities. The summary provides an overview of the specific issues of relevance in assessing the quality and breadth of the available evidence.

Maternal obesity and physical inactivity during pregnancy are independently associated with unfavorable maternal and neonatal
metabolic outcomes. Previous research in non-gravid adults suggests physical activity provides protection from many chronic diseases irrespective of body weight. The primary purposes of this dissertation were to determine the impact of obesity on maternal metabolic health (lipid metabolism, inflammation, insulin resistance) and neonatal metabolic health (adiposity, inflammation, insulin resistance), and to determine if adverse maternal and neonatal metabolic health is improved in obese pregnant women who are physically active during pregnancy compared to sedentary obese women. The secondary purpose of this dissertation was to examine the relationships between maternal and neonatal metabolic health. Three groups of pregnant women were compared between 32 and 37 weeks gestation (N = 50). Groups consisted of: 1) lean women, 2) obese-sedentary women, and 3) obese physically active women. Body composition (skinfold anthropometry), physical fitness levels (submaximal cycle test), and physical activity levels (accelerometry) were assessed. Maternal plasma markers of insulin resistance (Homeostatic Model Assessment-Insulin Resistance (HOMA-IR)) and systemic inflammation (C-reactive protein) were measured at rest. Lipid oxidation rate and lipolysis were measured at baseline, during a 30-minute bout of low-intensity exercise, and during a 1-hour recovery period. Cord blood was collected at parturition to measure neonatal plasma insulin resistance, inflammation, and free fatty acid concentration. Neonatal body composition was measured 24–48 hours postpartum via skinfold anthropometry and air displacement plethysmography. In Chapter 2, maternal and neonatal outcomes were compared between lean and obese pregnant women. Obese pregnant women had higher maternal inflammation, insulin resistance, and lipid oxidation rates. Maternal lipid oxidation rate and inflammation were positively correlated. Maternal inflammation was positively correlated to insulin resistance and blood pressure. Therefore, lipid metabolism may be contributing to inflammation and subsequent insulin resistance and hypertension in obese pregnant women. In Chapter 3, maternal and neonatal outcomes were compared between obese sedentary and obese physically active pregnant women. Physically active obese women had lower systemic inflammation compared to sedentary obese women; thus, regular physical activity may improve inflammation in obese pregnant women. In Chapter 4, the relationships between maternal and neonatal metabolic outcomes were examined. There were no correlations between maternal and neonatal metabolic outcomes across all women in the study. Several relationships between maternal and neonatal outcomes were found when comparing lean or obese women separately, which suggests that the mechanism linking maternal and neonatal metabolic health are complex and potentially BMI-dependent. In Chapter 5, the relationship between intensity of physical activity and maternal inflammation was examined. Low-intensity physical activities had the strongest negative correlation to systemic inflammation. Data from Chapter 5 also suggest that small daily increases in low-intensity physical activities may be enough of a stimulus to elicit clinically meaningful reductions in inflammation. Thus, pregnant women should be encouraged to participate in low-intensity physical activities in order to reduce their systemic inflammation and improve their long-term health. Overall, results from this dissertation project suggest that obesity during pregnancy has unfavorable implications for maternal metabolic health. However, a physically active lifestyle might mitigate these alterations, particularly maternal systemic inflammation. Pregnant women of all body weights should be encouraged to participate in daily physical activity, even low-intensity activity, in order to improve their health and the future health of their offspring.

Background: Pregnant women are encouraged to engage in regular, moderate intensity, physical activity that promotes healthy maternal and infant outcomes. Physical activity during pregnancy may help reduce the risk of pregnancy complications such as gestational diabetes, excessive gestational weight gain, preeclampsia and future type II diabetes and weight gain. Despite these potential benefits, only 15% of pregnant women achieve the current recommendations for physical activity. Previous research shows women have varying beliefs regarding the safety and benefits of physical activity during pregnancy. These varying beliefs along with levels of self-efficacy and intention to be physically active during pregnancy have been shown to influence the amount of physical activity performed by pregnant women. Objectives: 1) To examine the relationships between pregnant women’s beliefs, self-efficacy, and intention and the amount of physical activity performed during pregnancy, and 2) to explore differences in pregnant women’s beliefs, self-efficacy, and intention in women who meet the recommended amount of physical activity during pregnancy and those women who do not meet recommendations. Methods: The theory of planned behavior was utilized as a framework in this secondary data analysis of 563 pregnant women from the eMOMS study. Structural equation modeling was used to examine the relationships between beliefs, self-efficacy, and intention and the effect these had on the amount of physical activity performed by pregnant women. T-tests were used to examine the differences related to beliefs, self-efficacy and intention in women who met the recommended amount of physical activity during pregnancy and those who did not. Results: Beliefs about safety and benefits of physical activity were positively associated with intention but neither was statistically significant. Intention was not associated with physical activity. However, self-efficacy was significantly associated with intention. Other significant covariate findings are reported. Forty-five percent of the women in this study met the current recommendations for physical activity. Discussion: Despite the fact that several women met the recommendations for physical activity during pregnancy, the effect of intention and self-efficacy on physical activity was not found to be consistent with theory of planned behavior. Conversely, the positive association of self-efficacy and intention was consistent with previous studies using this theory. The effects of the constructs in this theory may function differently in pregnant women than in the general population. Conclusion: Future work should focus on strategies to help increase women’s understanding of the safety and benefits of physical activity as well as strategies to increase self-efficacy and intention to translate into increased physical activity. Further examination of the role of intention related to physical activity in pregnancy should be assessed as well as the application of the theory longitudinally across pregnancy.
women carry a significant excess risk of a variety of serious complications during pregnancy, and in addition, maternal obesity predisposes to obesity in the offspring. This book provides a timely update on the latest knowledge on maternal obesity and pregnancy. A very wide range of issues are covered, including macrosomia and associated shoulder dystocia; the risk of miscarriage, malformations, and complications of pregnancy; the impact of hyperglycemia; clinical management; consequences for anesthesia and ultrasound; impacts on breastfeeding, fertility, and childhood obesity; and pregnancy following gastric surgery. All of the authors are recognized experts in their fields, and the book has been designed to meet the practical needs of obstetricians, gynecologists, internists, and general practitioners.

Physiological Bases of Human Performance during Work and Exercise is a high-level physiology text for advanced students, researchers and practitioners in the fields of human physiology, exercise science and applied physiology. Eighty internationally recognized scientists from sixteen countries have written chapters within six areas: Physiological performance limits and human adaptation; The physiological bases of gender differences in performance; Age and human performance; Performance under environmental extremes; Exercise and health interactions; and Optimising performance through supplementation. Each section contains state-of-the-art reviews of the scientific literature. To stimulate critical thinking, there are thirteen debates and discussions that focus on some of the controversial topics that exist across these disciplines.

Here is the ultimate resource for maximizing your exercise and nutrition efforts. In this new edition of ACSM’s Complete Guide to Fitness & Health, you have an authoritative reference that allows you to apply research-based guidance to your unique health and fitness needs. With a focus across the lifespan, this resource shows you how to pursue optimal health and fitness now and throughout the years to come. The American College of Sports Medicine, the largest and most respected sport science and medicine organization in the world, has created this book to bridge the gap between science and the practice of making personal lifestyle choices that promote health. This new edition contains age-specific advice within the framework of the latest research, thus helping you to avoid the lure of fads, unfounded myths, and misinformation. You will learn these strategies: • Incorporate the latest guidelines for physical activity and nutrition into your daily routine to improve your fitness and overall health. • Optimize your weight and increase strength, flexibility, aerobic fitness, and functional fitness. • Improve health and manage conditions such as diabetes, cardiovascular disease, cancer, depression, osteoporosis, arthritis, pregnancy, and Alzheimer’s disease through exercise and nutrition. • Monitor, evaluate, and tailor your exercise program for optimal results. Featuring step-by-step instructions and full-color photos for the most effective exercises, sample workouts, practical advice, age-specific physical activity and dietary guidelines, and strategies for incorporating exercise and healthy nutrition choices into even the busiest of lifestyles, ACSM’s Complete Guide to Fitness & Health is a resource that belongs in every fitness enthusiast’s library.

A nutrition and physical activity curriculum for pregnant women.

"Mama Natural's Week to Week Guide to Pregnancy is the modern (and yet ancient) approach to pregnancy and childbirth. "Natural" recognizes that pregnancy and birth are normal, and that having a baby is a wondrous biological process and rite of passage—not an abnormal condition. This book draws upon the latest research showing how beneficial and life-changing natural birth is for both babies and moms. Full of weekly advice and tips for a healthy pregnancy, Grace details vital nutrition to take, natural remedies for common and troublesome symptoms, as well as the appropriate (and inappropriate) use of interventions. Pregnancy, childbirth, health, health and wellness, parenting, family"---

The Go-To Guide to Keep You Active and Healthy During Your Pregnancy and Beyond Whether you're a professional athlete or a dedicated weekend warrior, you're serious about your sport and your commitment to fitness. But now that you're pregnant, you may be getting conflicting health and exercise advice from your family, friends, and doctors. With all the concerns and misinformation, it's hard to know where to turn for accurate, supportive guidance so you can have a safe, healthy pregnancy and maintain a high level of fitness. Now, in The Pregnant Athlete, triathlete/trainer mom Brandi Dion, fitness professional Steven Dion, and OB/GYN Joel Heller have teamed up to offer: Practical information on how your body changes each month, and how to gauge your own limits Flexible workout plans for strength, cardiovascular conditioning, agility, and balance for each stage of pregnancy and the postpartum period Facts and tips about eating well to support pregnancy and fuel your workouts The truth about old wives' tales and common pregnancy myths and misconceptions With expert advice and medical insights from an OB/GYN, useful information for the pregnant athlete's partner, and inspiring stories from other athletic moms-to-be; The Pregnant Athlete will help you stay happy, healthy, and in top form during your pregnancy and beyond.

Comprehensive and research based, the second edition of NSCA’s Essentials of Personal Training is the resource to rely on for personal training information and guidance. With state-of-the-art knowledge regarding applied aspects of personal training as well as clear explanations of supporting scientific evidence, NSCA’s Essentials of Personal Training, Second Edition, is also the authoritative preparation text for those preparing for the National Strength and Conditioning Association’s Certified Personal Trainer (NSCA-CPT) exam. This essential reference was developed by the NSCA to present the knowledge, skills, and abilities
required for personal trainers. With contributions from leading authorities in the field, the text will assist both current and future personal trainers in applying the most current research to the needs of their clients. A discussion on nutrition outlines the role of the personal trainer in establishing nutrition guidelines, including the application of nutrition principles for clients with metabolic concerns. The latest guidelines on client assessment from prominent organizations—such as the American Heart Association (AHA) and Centers for Disease Control and Prevention (CDC)—keep personal trainers up to speed on the latest assessment protocols. New information is presented on flexibility training and cardiovascular exercise prescription as well as a discussion of research on the effectiveness of stability ball training. Revised information on design of resistance training programs incorporates the latest information on the application of periodization of training. New information addressing injuries and rehabilitation prepares personal trainers to work with clients with special concerns such as orthopedic conditions, low back pain, ankle sprains, and hip arthroscopy. New guidelines for determining resistance training loads will assist those whose clientele includes athletes. A variety of fitness testing protocols and norms allows readers to select from several options to evaluate each component of fitness. A new instructor guide and image bank aid instructors in teaching the material to students. NSCA’s Essentials of Personal Training, Second Edition, focuses on the complex process of designing safe, effective, and goal-specific resistance, aerobic, plyometric, and speed training programs. Featuring over 200 full-color photos with accompanying technique instructions, this resource offers readers a step-by-step approach to designing exercise programs with special attention to the application of principles based on age, fitness level, and health status. Using comprehensive guidelines and sample clients portrayed in the text, readers can learn appropriate ways to adjust exercise programs to work with a variety of clients while accommodating each client’s individual needs. Personal trainers will appreciate the book’s presentation of detailed exercise programming guidelines for specific populations. Modifications and contraindications to exercise are given for prepubescent youth, older adults, and athletes as well as for clients who are overweight or obese or have eating disorders, diabetes, heart disease, hypertension, hyperlipidemia, spinal cord injury, multiple sclerosis, and cerebral palsy. In addition, the book provides clear, easy-to-understand guidelines for initial client consultation and health appraisal. For those preparing for the NSCA-CPT exam, this second edition features new and revised study questions at the end of each chapter. These questions are written in the same style and format as those found on the NSCA-CPT exam to fully prepare candidates for exam day. For efficient self-study, answers to study questions and suggested solutions for the applied knowledge questions are located in the back of the text. Chapter objectives and key points provide a framework for study and review of important information, while sidebars throughout the text present practical explanations and applications of scientific concepts and theory. The second edition of NSCA’s Essentials of Personal Training is the most comprehensive resource available for current and future personal trainers, exercise instructors, fitness facility and wellness center managers, and other fitness professionals. Unmatched in scope, this text remains the leading source for personal training preparation and professional development.

Now updated! The new edition of this best-selling guide uses science to tackle some of the most important decisions facing new parents—from sleep training and vaccinations to breastfeeding and baby food. Is cosleeping safe? How important is breastfeeding? Are food allergies preventable? Should we be worried about the aluminum in vaccines? Searching for answers to these tough parenting questions can yield a deluge of conflicting advice. In this revised and expanded edition of The Science of Mom, Alice Callahan, a science writer whose work appears in the New York Times and the Washington Post, recognizes that families must make their own decisions and gives parents the tools to evaluate the evidence for themselves. Sharing the latest scientific research on raising healthy babies, she covers topics like the microbiome, attachment, vaccine safety, pacifiers, allergies, increasing breast milk production, and choosing an infant formula.

Cuts through the confusion surrounding pregnancy and birth by debunking dozens of myths that mislead parents, offering explanations of medical terms, and covering a variety of issues including prenatal care, birth defects, and amniocentesis.

Generally, research has shown pregnant women have a more negative body image pre-pregnancy and early pregnancy compared to mid-to-late pregnancy. Negative body image in this population has been linked to several important pregnancy-related behaviours and poorer mental health that may put the mother’s and baby’s health at risk. In regards to positive body image, there has been a lack of research investigating how positive body image constructs such as body appreciation and embodiment change, and little work has examined how self-objectification changes. In nonpregnant populations, positive body image has been linked to several health behaviours and outcomes; thus, it is important to determine if pregnant women experience positive body image during their pregnancy. In addition, participation in physical activity has been linked to improvements in body image via an increase in embodiment and a decrease in self-objectification in young adult women. Whether this is true for the pregnant population is unknown. The overall purpose of this study was to understand the relationship between positive body image and physical activity in pregnant women. The first purpose was to determine whether body appreciation, embodiment, and self-objectification levels differ across trimester. The second purpose was to determine if physical activity was associated with body appreciation, and if this relationship was mediated by an increase in embodiment and a decrease in self-objectification. Thirty-one women in the first trimester, 55 in the second trimester, and 75 in the third trimester completed measures of body appreciation, embodiment, self-objectification, and physical activity online. Multivariate analysis of covariance showed all measures differed by trimester. Post-hoc tests showed body appreciation (M = 3.79; SE = 0.08) and embodiment (M = 2.92; SE = 0.05) were higher and self-objectification (M = 3.66; SE = 0.14) lower in third trimester compared to first trimester (M = 3.37; SE = 0.12; M = 2.56; SE =
Embodiment was also higher in the third trimester (M = 2.92; SE = 0.05) compared to the second trimester (M = 2.67; SE = 0.06). Serial mediation analysis revealed physical activity was associated with body appreciation through an increase in embodiment and a decrease in self-objectification. The findings from this study indicate positive body image improves across pregnancy and physical activity could be one way to improve positive body image in pregnant women.

And examples -- References -- Construct validity in physical activity research / Matthew T. Mahar and David A. Rowe -- Definitional stage -- Confirmatory stage -- Theory-testing stage -- Summary -- References -- Physical activity data: odd distributions yield strange answers / Jerry R. Thomas and Katherine T. Thomas -- Overview of the general linear model and rank-order procedures -- Determining whether data are normally distributed -- Application of rank-order procedures -- Data distributions and correlation -- Extensions of GLM rank-order statistical procedures -- Summary -- Endnote -- References -- Equating and linking of physical activity questionnaires / Weimo Zhu -- What is scale equating? -- Equating methods -- Practical issues of scale equating -- Remaining challenges and future research directions -- Summary -- References.

Helping mothers-to-be and their supporters understand the safest and most beneficial ways of exercising during and after pregnancy.

This new SpringerBrief in Physiology explores the newest research findings on how exercise influences the fetus in utero and beyond. Physiology of Prenatal Exercise and Fetal Development reviews the current findings of how maternal exercise throughout gestation influences fetal development of key organ systems, and also encompasses the relationship between maternal activity level and fetal, birth, and neonatal effects. This information will help researchers and scientists better understand the physiological effects of exercise during pregnancy on offspring development.

This book considers two important international nutrition issues, provides a scientific evaluation, and proposes strategies for intervention at the community level. Part I, Diarrheal Diseases, considers the dietary and nutritional factors that may affect the risk of contracting diarrheal disease and presents programmatic implications of these findings. Part II, Diet and Activity During Pregnancy and Lactation, examines data on the extent to which women in the developing world are known to reduce or otherwise alter their activities and diets as a result of childbearing.

As women of childbearing age have become heavier, the trade-off between maternal and child health created by variation in gestational weight gain has become more difficult to reconcile. Weight Gain During Pregnancy responds to the need for a reexamination of the 1990 Institute of Medicine guidelines for weight gain during pregnancy. It builds on the conceptual framework that underscored the 1990 weight gain guidelines and addresses the need to update them through a comprehensive review of the literature and independent analyses of existing databases. The book explores relationships between weight gain during pregnancy and a variety of factors (e.g., the mother's weight and height before pregnancy) and places this in the context of the health of the infant and the mother, presenting specific, updated target ranges for weight gain during pregnancy and guidelines for proper measurement. New features of this book include a specific range of recommended gain for obese women. Weight Gain During Pregnancy is intended to assist practitioners who care for women of childbearing age, policy makers, educators, researchers, and the pregnant women themselves to understand the role of gestational weight gain and to provide them with the tools needed to promote optimal pregnancy outcomes.

Regular physical activity is proven to help prevent and treat noncommunicable diseases (NCDs) such as heart disease, stroke, diabetes and breast and colon cancer. It also helps to prevent hypertension, overweight and obesity and can improve mental health, quality of life and well-being. In addition to the multiple health benefits of physical activity, societies that are more active can generate additional returns on investment including a reduced use of fossil fuels, cleaner air and less congested, safer roads. These outcomes are interconnected with achieving the shared goals, political priorities and ambition of the Sustainable Development Agenda 2030. The new WHO global action plan to promote physical activity responds to the requests by countries for updated guidance, and a framework of effective and feasible policy actions to increase physical activity at all levels. It also responds to requests for global leadership and stronger regional and national coordination, and the need for a whole-of-society response to achieve a paradigm shift in both supporting and valuing all people being regularly active, according to ability and across the life course. The action plan was developed through a worldwide consultation process involving governments and key stakeholders across multiple sectors including health, sports, transport, urban design, civil society, academia and the private sector.

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