

Recommended forms of exercise during pregnancy and so-called risky sports &

Adaptation of exercise and sport activities to pregnancy

Anna Szumilewicz, PhD, associate professor at GUPES



















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Current Women's Health Reviews, 2015, Volume

1

Summary of Guidelines for Exercise in Pregnancy – Are They Comprehensive Enough for Designing the Contents of a Prenatal Exercise Program?

Anna Szumilewicz^{1*}, Aneta Worska¹, Natalia Rajkowska¹, Rita Santos-Rocha²









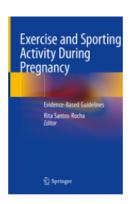








» Medicine



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Exercise and Sporting Activity During Pregnancy

Evidence-Based Guidelines

Editors: Santos-Rocha, Rita (Ed.)

Evidence-Based and Practice-Oriented Guidelines for Exercising During Pregnancy

7

Anna Szumilewicz, Aneta Worska, Rita Santos-Rocha, and Miguel Ángel Oviedo-Caro













2022...

Exercise and Sporting Activity During Pregnancy. Evidence-Based Guidelines

Chapter 7 – Evidence-based and practice-oriented guidelines for exercising during pregnancy

Anna Szumilewicz, Aneta Worska, Rita Santos-Rocha, and Miguel Angel Oviedo-Caro

Exercise and Physical Activity During Pregnancy and Postpartum

Evidence-Based Guidelines
Rita Santos-Rocha
Editor
Second Edition



Chapter 7

Evidence-based and practice-oriented guidelines for exercising during pregnancy

Anna Szumilewicz¹, Aneta Worska², Rita Santos-Rocha³, and Miguel Ángel Oviedo-Caro⁴

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We have analyzed 11 new documents





The biggest mistake in the past:



– an unwarranted recommendation for bed rest, a total prohibition or a strong limitation of exercise during pregnancy!

This is an act to the detriment of the woman.



"Activity restriction should not be prescribed routinely as a treatment to reduce preterm birth." (ACOG, 2020)







Limiting physical activity during pregnancyit can no longer be regarded as a Limiting physical activity during pregnancyit can no longer be regarded as a Limiting physical activity during pregnancy in pregnancy.

COMMENTARY

Choosing Wisely: Bedrest—A Panacea for All That Ails the Gravida?



Venu Jain, MD, PhD

Department of Obstetrics and Gynaecology, Royal Alexandra Hospital, University of Alberta, Edmonton, AB

V. Jain

Abstract

Bedrest has been frequently prescribed for various high-risk conditions during pregnancy. A common indication cited is concern regarding increased risk of spontaneous preterm birth, known to be associated with gestations with twins or higher-order multiples, polyhydramnios, presence of preterm contractions with or without evidence of cervical change, sonographic cervical shortening, presence of a dilated cervix with bulging membranes, or preterm premature rupture of membranes. In some cases, there is concern that excessive movement may increase the risk of antepartum hemorrhage, as may be with placenta previa, with or without a higher risk of a morbidly adherent placenta or a vasa previa. It is also thought that improved splanchnic perfusion with bedrest may enhance blood supply to the uterus with possible benefit in conditions such as preeclampsia (or gestational hypertension) or fetal growth restriction. However, there is no evidence of any benefit of bedrest or reduced activity during pregnancy for either of these conditions. On the contrary, there is evidence of harm, in addition to the fact that exercise is known to be beneficial in pregnancy.

dilatation du col accompagnée d'une saillie des membranes; ou à une rupture prématurée des membranes. Dans certains cas, par exemple de placenta prævia avec ou sans risque accru d'adhérence pathologique du placenta ou de vasa prævia, on craint qu'un excès de mouvement augmente le risque d'hémorragie antepartum. Par ailleurs, on croit que l'augmentation de la circulation splanchnique due à l'alitement pourrait accroître l'apport sanguin à l'utérus et ainsi avoir une incidence positive en présence de problèmes comme la prééclampsie (ou l'hypertension gravidique) ou le retard de croissance fœtal. Toutefois, il n'existe aucune preuve des avantages de l'alitement ou de la réduction de l'activité physique durant la grossesse, pour aucun de ces problèmes de santé. Au contraire, des données indiquent une possibilité de préjudice, en plus du fait que l'exercice est reconnu comme bénéfique durant la grossesse.

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J Obstet Gynaecol Can 2019;41(7):971-973

https://doi.org/10.1016/j.jogc.2019.03.004







Routine recommendations to limit physical activityand "bed rest,, in pregnancy is simply called "unethical behavior."



"Therapeutic" Bed Rest in Pregnancy

Unethical and Unsupported by Data

Christina A. McCall, MD, David A. Grimes, MD, and Anne Drapkin Lyerly, MD, MA

"Therapeutic" bed rest continues to be used widely, despite evidence of no benefit and known harms. In this commentary, we summarize the Cochrane reviews of bed rest and propose an ethical argument for discontinuing this practice. Cochrane systematic reviews do not support "therapeutic" bed rest for threatened abortion, hypertension, preeclampsia, preterm birth, multiple gestations, or impaired fetal growth. This assessment has been echoed in other comprehensive reviews. Prescribing bed rest is inconsistent with the ethical principles of autonomy, beneficence, and justice. Hence, if bed rest is to be used, it should be only within a formal clinical trial.

(Obstet Gynecol 2013;121:1305-8)

DOI: 10.1097/AOG.0b013e318293f12f

we will summarize the relevant literature, consider the explanations for the persistence of bed rest, and describe the ethical implications of its continued use.

COCHRANE REVIEWS: LESSONS LEARNED

The Cochrane Library was searched using key words "bed rest" and "pregnancy." Six Cochrane systematic reviews of bed rest in pregnancy do not support this practice (Table 1). Randomized controlled trials represent the highest level of evidence (level I) on which to base clinical decision making. Although bed rest is prescribed with varying levels of activity restriction, the focus of this commentary is on strict bed rest. Simply defined, strict bed rest refers to confinement to one's dwelling except for health care visits and rest







Forms of physical activity in pregnancy















Characteristics of analyzed guidelines on exercise in pregnancy, published by the end of 2017

| Country | Organization | Title | Year of publication |
|--------------|---|---|---------------------------|
| Australia | Sport Medicine Australia (SMA) (34) | SMA statement: The benefits and risks of exercise during pregnancy | 2002 Updated 2016 (34) |
| Australia | Fitness Australia. The Health & Fitness Industry Association (35) | Pre & Post-Natal Exercise Guidelines | 2013 |
| Canada | Society of Obstetricians and Gynaecologists of Canada; Canadian Society for Exercise Physiology SOGC/CSEP (36) | Exercise in pregnancy and the postpartum period | 2003 |
| Canada | Canadian Academy of Sport and Exercise Medicine (CASEM) (37) | Position statement: Exercise and pregnancy | 2007; updated 2008 |
| Denmark | National Board of Health (38) | Healthy habits before, during and after pregnancy. 1st English edition | 2010 |
| Norway | Directorate for Health and Social Affairs (39) | A National Clinical Guideline for Antenatal Care. Short Version – Recommendations | 2005 |
| South Africa | South African Sports Medicine Association (SASMA) (40) | South African Sports Medicine Association Position Statement on Exercise in Pregnancy | 2012 |



Characteristics of analyzed guidelines on exercise in pregnancy, published by the end of 2017

| United Kingdom | Royal College of Obstetricians and Gynaecologists (RCOG) (41) | Exercise in pregnancy | 2006 |
|-------------------|---|---|--|
| United States | American College of Obstetricians and Gynecologists (ACOG) (42) | Committee Opinion: Exercise during pregnancy and the postpartum period | 2002; Reaffirmed in 2009 Updated in 2015 (42) |
| United States | U.S. Department of Health and Human Services (U.S. DHHS) (43) | Physical Activity for Women During Pregnancy and the Postpartum Period Chapter in: 2008 Physical Activity Guidelines for Americans | 2008 |
| United States | American College of Nurse- Midwives (ACNM) (44) | Exercise in Pregnancy | 2014 |
| United States | American College of Sports Medicine (ACSM) (45) | Current Comment: Exercise during Pregnancy | Not reported |
| International | International Olympic Committee (IOC); three parts (1, 2, 46) | Exercise and pregnancy in recreational and elite athletes: 2016 evidence summary from the IOC expert group meeting, Lausanne. | 2016 |



Table 7.2 – Characteristics of analyzed guidelines on exercise in pregnancy, published after 2017

| published after 2017 | | | | | | | | | |
|----------------------------|---|--|-----------------------------|--|--|--|--|--|--|
| Country | Organization | Title | Year of publication | | | | | | |
| Australia | Sport Medicine Australia (SMA) (47) | Exercise in pregnancy (layman oriented brochure) | Not reported Access 2021 | | | | | | |
| Australia | Australian Gavernment. Department of Health (AGDH) (48) | Guidelines for physical activity during pregnancy (layman oriented brochure) | 2021 | | | | | | |
| Australia & New Zealand | Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) (49) | Exercise in Pregnancy | 2020 | | | | | | |
| Canada | Society of Obstetricians and Gynaecologists of Canada; Canadian Society for Exercise Physiology SOGC/CSEP (50) | 2019 Canadian guideline for physical activity throughout pregnancy | 2018 | | | | | | |
| United Kingdom | National Health Service NHS (51) | Exercise in pregnancy (online materials on the official webpage) | 2020 | | | | | | |
| United States | American College of Obstetricians and Gynecologists (ACOG) (52) | Committee Opinion: Exercise during pregnancy and the postpartum period | 2020 | | | | | | |



| United States | Exercise is Medicine/American College of Sports Medicine (EIM/ACSM) (54) | Being Active during Pregnancy (layman oriented brochure) | 2019 |
|--|--|--|------|
| United States | U.S. Department of Health and Human Services (U.S. DHHS) (55) | Rey Guidelines for Women During Pregnancy and the Postpartum Period; Section in: Physical Activity Guidelines for Americans, 2nd edition | 2018 |
| International Olympic Committee (IOC) (56) | | Exercise and pregnancy in recreational and elite athletes: 2016/2017 evidence summary from the IOC expert group meeting, Lausanne. Part 5. Recommendations for health professionals and active women | 2018 |
| International | World Health Organization WHO (57) | World Health Organization 2020 guidelines on physical activity and sedentary behavior | 2020 |

Guidelines on the type of exercise and forms of sports activities recommended in pregnancy, published by the end of 2017

| | Australia (SMA) | Canada (SOGC/ CSEP) | Canada (CASEM) | Denmark | Norway | South Africa (SASMA) | United Kingdom (RCOG) | United States (ACOG) | United States (ACNM) | United States (ACSM) | United States (U.S.DHHS) | |
|---|--------------------|---------------------------|-------------------|---------|--------|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|--|
| General recommendation on the typei of exercise: | | | | | | | | | | | | |
| Aerobic exercise ⁱⁱ | + | + | + | + | + | + | + | + | +*** | +*** | + | |
| Strengthening exerciseiv | + | + | + | + | + | + | + | | +*** | | + | |
| Flexibility exercise | | | | | | | | | | | | |
| Recommended forms' of exercise and sports activities: | | | | | | | | | | | | |
| Aerobics ^{vi} | + | | | | + | + | + | | + | + | | |
| Cross-country skiing | | + | + | | | + | | | | | | |
| Cycling | + | | | + | + | + | | | + | | | |
| Dancing | | | | | + | + | | | | | | |
| Exercise in water | | + | | + | | | + | + | | + | | |
| Gymnastics | | | | | + | | | | | | | |
| Hiking | | | | | | + | | | | | | |
| Jogging | | | | | + | + | + | | | + | | |
| Rowing | | | | | | + | | | | | | |
| Running | + | | | | | + | | | | | | |
| Stationary cycling | + | + | + | | | + | | | | + | | |
| Strengthening training | | | | + | | | | | + | | | |
| Swimming | | + | + | + | + | + | | | + | + | | |
| Targeted prenatal classes | | | | | | | aqua natal | aqua natal | | | | |
| Walking | | + | + | + | + | + | | | + | + | | |
| Yoga | | | | | | | | | + | | | |



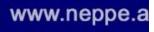


Table 7.4 – Guidelines on the type of exercise and forms of sports activities recommended in pregnancy, published after 2017



| | Australia (SMA) 2021 | Australia AGDH 2021 | Australia & New Zealand 2020 | Canada (SOGC/CSEP) 2018 | United Kingdom (NHS) 2021 | United States (ACOG) 2020 | United States (ACSM) 2020 | United States (EIM/A CSM) 2019 | United States (US.DHHS) 2018 | International (IOC) 2018 | International (WHO) 2020 |
|--|-------------------------|------------------------|---------------------------------|----------------------------|------------------------------|------------------------------|------------------------------|-----------------------------------|---------------------------------|-----------------------------|-----------------------------|
| General recommendation on th | e type ¹ of | exercise: | | | | | | | | | |
| Aerobic exercise ² | + | + | + | + | + | + | + | + | + | + | + |
| Strengthening exercise ³ | + | + | + | + | + | + | + | + | + | + | + |
| Flexibility exercise | + | | + | + | + | + | + | + | | | + |
| Recommended forms ¹ of exerci | se and spo | rts activit | ies: | | | | | | | | |
| Aerobics ⁴ | +5 | | | | + | + | +5 | | | | |
| Cycling | | + | | | | | | | | | |
| Dancing | | + | | | + | + | | + | | | |
| Everyday activity | | | | + | | | | + | | | |
| Exercise classes | | + | | | | | | | | | |
| Exercise in water/Aquafit/in a pool | | | + | + | | + | | + | | | |
| Jogging | + | | | | | | +6 | | | | |
| Pilates | | | | | | +7 | +7 | | | | |
| Running | | | | +6 | + | | +6 | | | | |
| Stationary cycling | + | | + | + | | + | | + | | | |
| Racket sports | | | | | | | +6 | | | | |
| Resistance training | | | | | | +6 | + | | | | |
| Stretching | | | | + | | + | | + | | | |
| Swimming | + | + | + | + | + | | + | | | | |
| Walking | + | + | + | + | + | + | + | + | | | |
| Yoga | | | | + | + | +7 | +7 | | | | |

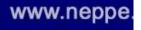


Table 7.6 – Guidelines on the type of exercise and forms of sports activities not recommended in pregnancy, published after 2017



| | Australia (SMA) 2021 | Australia AGDH 2021 | Australia & New Zealand 2020 | Canada (SOGC/CSEP) 2018 | United Kingdom (NHS) 2021 | United States (ACOG) 2020 | United States (ACSM) 2020 | United States (EIM/A CSM) 2019 | United States (U.S.DHHS) 2018 | International (IOC) 2018 | International (WHO) 2020 |
|---------------------------------------|-------------------------|------------------------|---------------------------------|----------------------------|------------------------------|------------------------------|------------------------------|-----------------------------------|----------------------------------|-----------------------------|-----------------------------|
| Sports listed as "to be avoide | ed" in preg | nancy: | | | | | | | | | |
| "Hot yoga" or "hot Pilates" | | | | | | + | + | + | | | |
| Artistic gymnastics | | | | | | | | | | +1 | |
| Basketball | | | | | | | + | + | + | +1 | |
| Bobsledding | | | | | | | | | | +1 | |
| Cycling | | | | + | | | | | | | |
| Diving/Scuba diving | + | + | | + | + | + | + | + | | + | |
| Downhill skiing | | | | + | | | + | + | + | +1 | |
| Equestrian | | | | | | | | | | +1 | |
| Field hockey | | | | | | | | | | +1 | |
| Freestyle skiing and ski jumping | | | | | | | | | | +1 | |
| Figure skating (some events) | | | | | | | | | | +1 | |
| Generally contact sports | + | | | | + | + | + | + | + | | |
| Gymnastics | | | | + | | | + | + | | +1 | |
| Handball | | | | | | | | | | +1 | |
| Heavy weightlifting/ Olympic lifts | | + | + | + | | | | + | | | |

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NEW ERA OF PREGNANCY AND POSTPARTUM EXERCISE



| - F | | ı | ı | I | ı | ı | I | ı | l | ı |
|---|---|---|---|---|---|---|---|---|----|---|
| Horseback riding | | | + | | | + | + | + | | |
| Ice hockey | | | + | | + | + | + | | +1 | |
| Luge | | | | | | | | | +1 | |
| Martial arts (e.g., boxing, judo, kickboxing, taekwondo, wrestling) | | | | + | | + | | | +1 | |
| Off-road cycling/mountain cycling/BMX | | | | | | + | | | +1 | |
| Rugby | | | | | | | | | +1 | |
| Short track speed skating | | | | | | | | | +1 | |
| Sky-diving | + | | | | | + | | | +1 | |
| Snowboard | | | | | | | | | +1 | |
| Soccer (football) | | | | | + | + | + | + | +1 | |
| Some track and field events | | | | | | | | | +1 | |
| Squash | | | | | + | | | | | |
| Surfing | | | | | | + | | | | |
| Trampoline | | | | | | | | | +1 | |
| Volleyball | | | | | | | | | +1 | |
| Water skiing | | | | | | + | + | | | |

¹where there is the possibility for contact with other athletes or the environment and subsequent damage to the fetus/placenta. Non-contact training may be continued.



There is no scientific evidence that the forms of physical activity mentioned as dangerous can actually be associated with risk for the course of pregnancy.

It is simply a "common sense" assumption.

















Pregnancy

Guidelines for the Australian Sporting Industry The accidents in which the forces are close to a car accident can be dangerous for pregnancy. And such in the practice of various forms of physical activity are very rare.

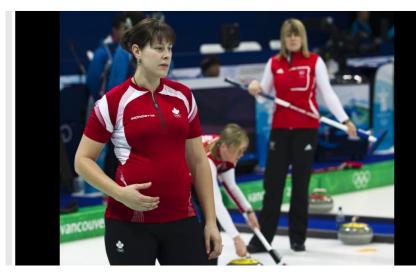






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Pregnant Olympic athletes (cnn.com)

The Elite Athlete and Strenuous Exercise in Pregnancy

JAMES M. PIVARNIK, PhD,* LINDA M. SZYMANSKI, MD, PhD,† and MICHELLE R. CONWAY, MS‡

Departments of *Kinesiology and Epidemiology & Biostatistics; ‡ Kinesiology, Michigan State University, East Lansing, Michigan; and † Department of Gynecology and Obstetrics, Johns Hopkins University, Baltimore, Maryland

The studies by Salvesen et al. have shown that high-class athletes performing near-maximum physical exercise in pregnancy gave birth to healthy newborns.



Health

Pregnant Olympic athletes

By Susan Scutti, CNN

Published 1930 GMT (0330 HKT) April 20, 2017



1 of 10















Sport w ciąży – tak czy nie

326.03.2021, 06:30





UDOSTĘPNIJ



Jest w 6. miesiącu ciąży i ćwiczy na siłowni. Internauci zarzucają, że jest złą mamą! Dlaczego aktywna kobieta w ciąży budzi takie kontrowersje? 34-latka







Breaking Barriers: Women's Experiences of CrossFit Training **During Pregnancy**

Tanya Prewitt-White

University of Illinois at Chicago

Christopher P. Connolly

Washington State University

Yuri Feito

Kennesaw State University

Alexandra Bladek, Sarah Forsythe, Logan Hamel, and Mary Ryan McChesney Adler University

CrossFit is a form of resistance training characterized by constantly varied, weight-training, gymnastic, and body weight movements. While resistance training is a popular exercise option among pregnant women, it is not included in current physical activity recommendations for expectant mothers. Additionally, despite negative connotations, there are anecdotal accounts of pregnant women participating in CrossFit training without adverse effects to their pregnancies. Therefore, given the barriers to physical activity during pregnancy and vigorous-intensity exercise, examining the experience of pregnant women participating in CrossFit training is of interest in the present study. Participants in the study included 22 women at least three months post-pregnancy, who had adhered to CrossFit training for at least six months throughout pregnancy and were 18 years of age or older. A semi-structured interview guide was developed and transcripts were analyzed using a thematic content analysis. Researchers searched for themes across the interview data and reached agreement on subsequent themes. Seven themes emerged characterizing the experiences of pregnant women who participated in CrossFit training while pregnant: (1) quitting was not an option, (2) support and community (3) overcoming judgments and stereotypes, (4) listening to my body and modifying movements, (5) empowerment and pride, (6) easy pregnancy and delivery, and (7) lifestyle and functioning post-baby. Findings offer practical implications for practitioners working with pregnant women hoping to maintain their exercise regimens and demonstrate the barriers and opportunities for pregnant women desiring to maintain healthy lifestyles.



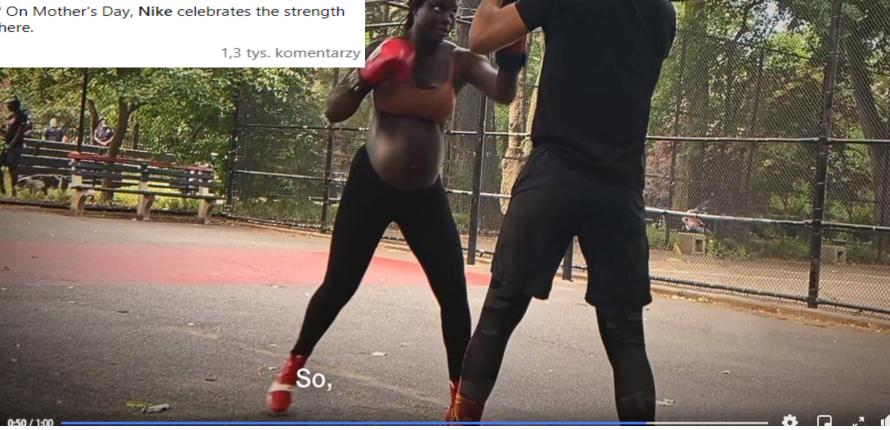




Nike Celebrates The Strength Of Mothers | **British Vogue**

What is an athlete? On Mother's Day, Nike celebrates the strength of mothers everywhere.





(5) Watch | Facebook















> Front Physiol. 2018 May 23;9:595. doi: 10.3389/fphys.2018.00595. eCollection 2018.

Training Characteristics During Pregnancy and Postpartum in the World's Most Successful Cross Country Skier

Guro S Solli 1 2, Øyvind Sandbakk 2

Affiliations + expand

PMID: 29875693 PMCID: PMC5974210 DOI: 10.3389/fphys.2018.00595

Free PMC article





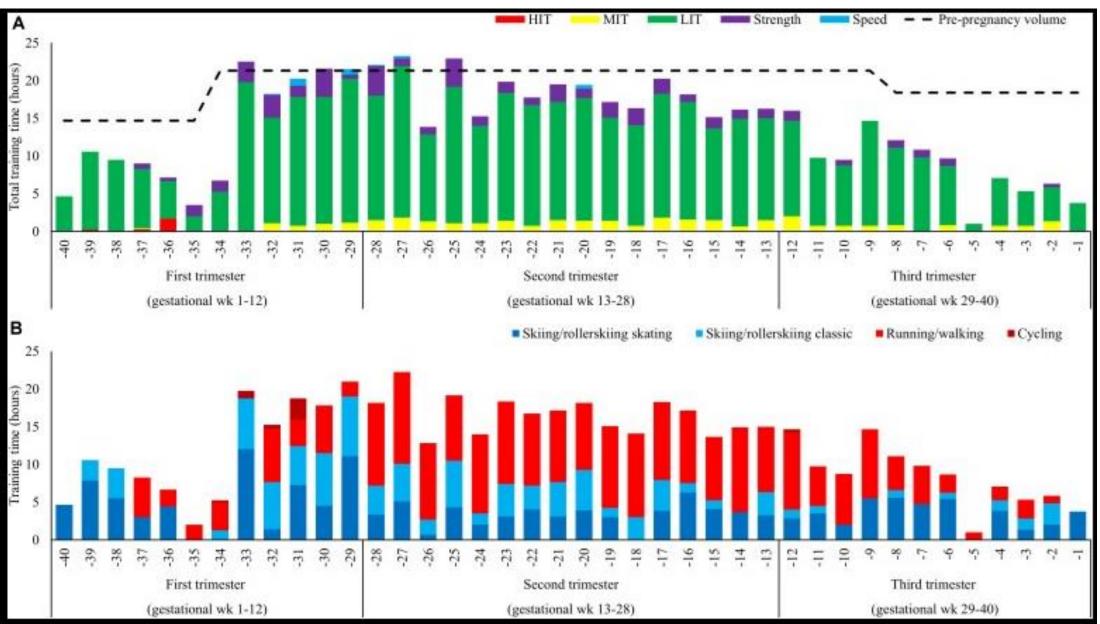




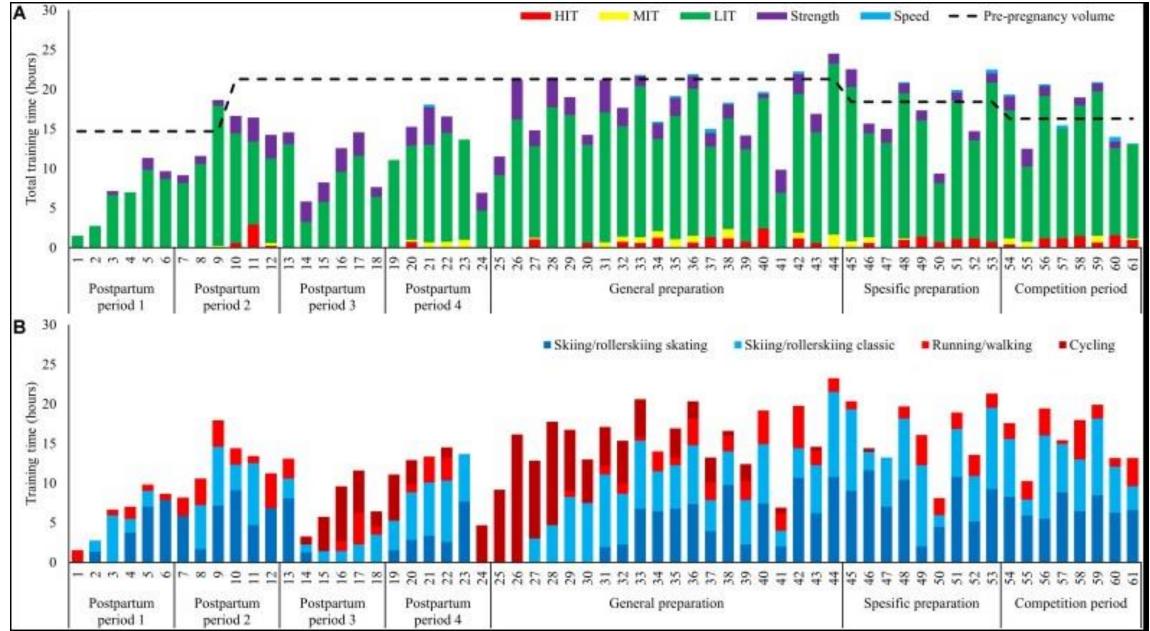














> Front Physiol. 2018 May 23;9:595. doi: 10.3389/fphys.2018.00595. eCollection 2018.

Training Characteristics During Pregnancy and Postpartum in the World's Most Successful Cross Country Skier

Guro S Solli 1 2, Øyvind Sandbakk 2

- The oxygen uptake at the estimated lactate threshold (LT) decreased to 90% of pre-pregnancy values in the second trimester, but remained to \sim 100% in PP3.
- Body weight and fat-% was higher, while lean body mass and bone mineral density was lower after delivery compared to pre-pregnancy.
- These measurements gradually changed and were back to ~pre-pregnancy values during CP.

This study indicates that high-level cross country skiers can tolerate high training loads during pregnancy. Although the participant had some postpartum setbacks in her training due to fractures in the sacrum, reduced overall training load, followed by a slower progression and utilization of alternative exercise modes, led to a successful return to

competitions.











> Z Geburtshilfe Neonatol. 2017 Feb;221(1):25-29. doi: 10.1055/s-0042-119654. Epub 2017 Jan 19.

Pregnant Women in Sport Climbing - Is there a Higher Risk for Preterm Birth?

Jan Drastig ¹, David Hillebrandt ², Werner Rath ³, Thomas Küpper ⁴

Affiliations + expand

PMID: 28103619 DOI: 10.1055/s-0042-119654

A retrospective self-report online survey in the German language collected data from 15 female climbers between September 2012 and November 2013.

Age ranged between 21 and 39 years, climbing experience before pregnancy between 2 and 24 years, and skill level before pregnancy between 4 and 7 on the UIAA scale (International Climbing and Mountaineering Federation).

Half of the women climbed until the 36th week and 90% adjusted their climbing habits mostly by reducing climbing difficulty and doing more top roping.

When continuing sport climbing as a recreational activity during an uncomplicated pregnancy, experienced athletes do not have a higher risk of adverse events.















> Z Geburtshilfe Neonatol. 2017 Feb;221(1):25-29. doi: 10.1055/s-0042-119654. Epub 2017 Jan 19.

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PMID: 28103619 DOI: 10.1055/s-0042-119654

















Exercise and Physical Activity During Pregnancy and Postpartum. Evidence-Based Guidelines Chapter 9 - Exercise selection and adaptations during pregnancy Anna Szumilewicz and Rita Santos-Rocha

Chapter 9

Exercise selection and adaptations during pregnancy

Anna Szumilewicz¹ and Rita Santos-Rocha²















Exercise and Physical Activity During Pregnancy and Postpartum. Evidence-Based Guidelines Chapter 9 - Exercise selection and adaptations during pregnancy Anna Szumilewicz and Rita Santos-Rocha



Figure 9. 2 - Indoor cycling is a non-weight-bearing activity to be performed on: A - a spinning bike; B - a stationary bike; C - a reclined bike



Exercise and Physical Activity During Pregnancy and Postpartum. Evidence-Based Guidelines Chapter 9 - Exercise selection and adaptations during pregnancy Anna Szumilewicz and Rita Santos-Rocha

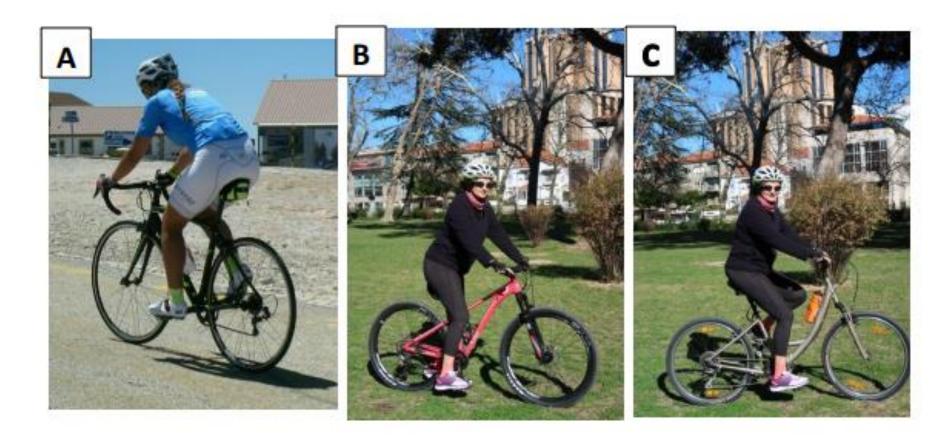


Figure 9. 3 - Outdoor cycling requires: A - a road bike; B - a mountain bike; C - an urban/fitness bike, among other types



How do we know that a given exercise is ok for a women?

Just ask her@!













How do we know that a given exercise is ok for a women?

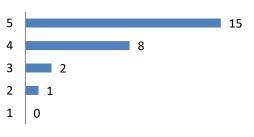


Just ask her!

Chest exercises





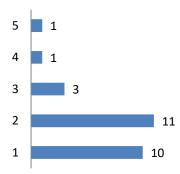






Trunk exercises







Abdominals exercises























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8 Months Pregnant and Still Playing Basketball. Photo

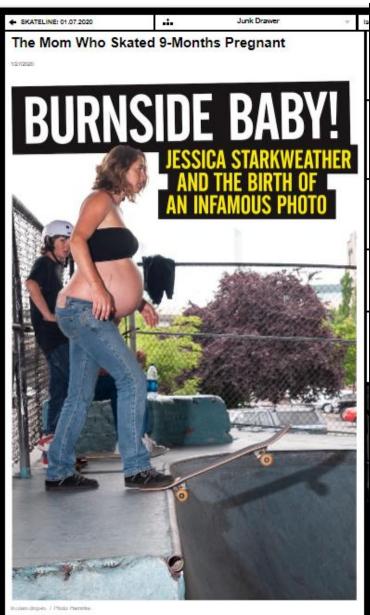




8 Months Pregnant and Still Playing Basketball. Photo – Wooferbuzz X (wordpress.com)

This is something we see, and we are like WOW!! Shout out to some ladies who cannot even move a finger at this stage of there pregnancy. But on a second thought, people are actually different. Thumbs up girl.

www.neppe.awfis.net























What an ace! Serena Williams shows off burgeoning baby belly while dominating on tennis court despite being seven months pregnant

By KELBY VERA AT DAILYMAIL.COM

PUBLISHED: 03:07 GMT, 16 June 2017 | UPDATED: 10:36 GMT, 16 June 2017



















Even in her third-trimester of pregnancy, Serena Williams is a super sport.

The expecting athlete proved that she was still in top shape on Thursday, sharing a glimpse of an on-court practice session via **Instagram**.

The 35-year-old talent looks fierce as ever, showing off her prominent seven month bump while practicing her famous forehand with a partner.



All star! Serena Williams is still rocking the tennis court - even in her third trimester of pregnancy

Serena Williams dominates on the court despite pregnancy

Daily Mail Online















Let's analyze your favourite form which you would like recommend for pregnant clients... ©

- Indicate at least 3 necessery modifications or precoutions
 - We will present in 5-10 minutes.











