# Avdeling for forskning. Årsrapport 2021

**Avdelingen består av to grupper - Kvinnesykdommer og fødselshjelp**

Leder: Anne Eskild, professor, Universitetet i Oslo og overlege ved Kvinneklinikken.

Forskergruppen ved Kvinneklinikken besto i 2021 av: Marie Ellström Engh (overlege og professor), Franziska Siafarikas (overlege og første-amanuensis), Camilla Haavaldsen (overlege og Post Doc-stipendiat 20%), Elisabeth K Bjelland (forsker 20%,), Jostein Grytten (seniorforsker 20%), Kari Bø (seniorforsker 20% Ahus, professor Norges idrettshøgskole), Cathrine J Teig (PhD, leder for Bekkensenteret), Marthe S Gottschalk (PhD-stipendiat), Vigdis Hillestad (overlege Post Doc 40% stipendiat), Karianne Sagberg (overlege og PhD-stipendiat 50%), Silje Sommerfelt (LIS og PhD-stipendiat), Helene Fjeldvik Peterson (LIS, PhD-stipendiat 50%) Marthe Dalevoll Macedo (jordmor, PhD-stipendiat 80%), Jeanette Risløkken (jordmor, PhD-stipendiat 50%, Hanne Sether Lilleberg (LIS og PhD stipendiat 50%), Andrea Solnes Miltenburg (LIS, PhD) og Elin Bæreg (sekretær).

**Hva vi studerer**

Forskergruppen i Kvinnesykdommer og fødselshjelp ved Kvinneklinikken på Akershus universitetssykehus skaper ny kunnskap om kvinners reproduktive periode, svangerskap, svangerskapskomplikasjoner og om forandringer som skjer under graviditeten. Vi forsker på følgende temaer:

* Forandringer i bekkenbunnen som følge av graviditet og fødsel
* Risikofaktorer for uheldige svangerskapsutfall og fødselsforløp
* Diagnostisk teknologi sin betydning for bedring av fødselsutfall
* Endringer i reproduksjonsmønsteret i Norge
* Alder ved menopause: Risikofaktorer og konsekvenser
* Morkakens vekst i svangerskapet
* Forbedring og utvikling av diagnostisk teknologi i svangerskapsomsorgen
* Svangerskapsrelaterte bekkenleddsmerter
* Global mødrehelse

Vi benytter data fra Medisinsk fødselsregister, Helseundersøkelsen i Nord-Trøndelag (HUNT), den Norske mor og barn-undersøkelsen og Kreftregisteret. Vi samler også inn data om pasienter på vår egen klinikk; Bekkenbunnsstudien (cohort og RCT), Perineumstudien og PLAVO-studien.

**Samarbeid**

Vi samarbeider med Odontologisk fakultet ved Universitetet i Oslo (UiO), Sahlgrenska Universitets Sjukhus (Göteborg), Karolinska Universitetsjukhus Stockholm, Oslo universitetssykehus, Norges idrettshøgskole, Kreftregisteret, OsloMet – Storbyuniversitetet, Universitetet i Manchester, Uppsala universitet, Sørlandet sykehus, samt andre forskergrupper på Akershus universitetssykehus. SINTEF, Digital og Haukeland universitetssykehus.

**Finansiering**

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**Utmerkelser 2021**

"Best presentation award" EBCOG 2021. Sagberg K, Eskild A, Sommerfelt S, Gjesdal KI, Higgins L, Borthne A, Hillestad V. Placental volume in gestational week 27 measured by three dimensional (3D) ultrasound and magnetic resonance imaging (MRI).

Haavaldsen C. Beste foredrag obstetrikk. Norsk gynekologisk forenings årsmøte 2021, Tønsberg.

Invent2-prisen 2021 til PLAVO-studien; the Baby Segmentasjon Tool

**Originalarbeider i internasjonale tidsskrifter 2021**

1. Dantas, Lucas Ogura; Carvalho, Cristiano; Santos, Beatriz Laryssa de Jesus; Ferreira, Cristine Homsi Jorge; Bø, Kari; Driusso, Patricia.Mobile health technologies for the management of urinary incontinence: A systematic review of online stores in Brazil. Brazilian Journal of Physical Therapy 2021; Volum 25.(4) s.387-395
2. Pena, Caroline C.; Bø, Kari; de la Ossa, Aura M.P.; Fernandes, Ana Carolina Nociti Lopes; Aleixo, Devechio N.; de Oliveira, Flávia M.F.; Ferreira, Cristine Homsi Jorge.Are visual inspection and digital palpation reliable methods to assess ability to perform a pelvic floor muscle contraction? An intrarater study. Neurourology and Urodynamics 2021 ;Volum 40.(2) s.680-687
3. Gluppe, Sandra L.; Engh, Marie Ellström; Bø, Kari.Women with diastasis recti abdominis might have weaker abdominal muscles and more abdominal pain, but no higher prevalence of pelvic floor disorders, low back and pelvic girdle pain than women without diastasis recti abdominis. Physiotherapy 2021; Volum 111. s. 57-65
4. Skaug, Kristina Lindquist; Engh, Marie Ellström; Frawley, Helena C.; Bø, Kari.Urinary and anal incontinence among female gymnasts and cheerleaders—bother and associated factors. A cross-sectional study. International Urogynecology Journal 2021
5. Sigurdardottir, Thorgerdur; Bø, Kari; Steingrimsdóttir, Thora; Halldórsson, Thorhallur Ingi; Aspelund, Thor; Geirsson, Reynir T**..** Cross-sectional study of early postpartum pelvic floor dysfunction and related bother in primiparous women 6–10 weeks postpartum. International Urogynecology Journal 2021; Volum 32.(7) s.1847-1855
6. Robinson, Hilde Stendal; Lindgren, Anne; Bjelland, Elisabeth Krefting.Generalized joint hypermobility and risk of pelvic girdle pain in pregnancy: does body mass index matter? Physiotherapy Theory and Practice 2021 s.1-9
7. Yarlagadda, Rima D.; Johnson, Jonas; Vårtun, Åse; Flo, Kari; Acharya, Ganesh.Maternal plasma pro-atrial and C-type natriuretic peptide levels and their associations with cardiovascular and renal function in the second half of normal pregnancy: a longitudinal study. BMC Pregnancy and Childbirth 2021; Volum 21.(1) s.1-20
8. Brækken, Ingeborg Hoff; Stuge, Britt; Tveter, Anne Therese; Bø, Kari.Reliability, validity and responsiveness of pelvic floor muscle surface electromyography and manometry. International Urogynecology Journal 2021; Volum 32. s.3267-3274
9. Frawley, Helena C.; Shelly, Beth; Morin, Melanie; Bernard, Stéphanie; Bø, Kari; Digesu, Giuseppe Alessandro; Dickinson, Tamara; Goonewardene, Sanchia; McClurg, Doreen; Rahnama'i, Mohammad S.; Schizas, Alexis; Slieker-ten Hove, Marijke; Takahashi, Satoru; Guevara, Jenniffer Voelkl.An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment. Neurourology and Urodynamics 2021 ;Volum 40.(5) s.1217-1260
10. Sagberg, Karianne; Eskild, Anne; Sommerfelt, Silje; Gjesdal, Kjell-Inge; Higgins, Lucy E.; Borthne, Arne Sigmund; Hillestad, Vigdis.Placental volume in gestational week 27 measured by three-dimensional ultrasound and magnetic resonance imaging. Acta Obstetricia et Gynecologica Scandinavica 2021 ;Volum 100.(8) s.1412-1418
11. Strøm-Roum, Ellen Marie; Jukic, Anne M.; Eskild, Anne.Offspring birthweight and placental weight—does the type of maternal diabetes matter? A population-based study of 319 076 pregnancies. Acta Obstetricia et Gynecologica Scandinavica 2021 s.1-8
12. Grytten, Jostein; Skau, Irene.Improvements in Dental Health and Dentists’ Workload in Norway, 1992 to 2015. International Dental Journal 2021
13. Gluppe, Sandra L.; Engh, Anna Marie Ellström; Bø, Kari.What is the evidence for abdominal and pelvic floor muscle training to treat diastasis recti abdominis postpartum? A systematic review with metaanalysis. Brazilian Journal of Physical Therapy 2021; Volum 25.(6) s.664-675
14. Forsse, David Erik; Barbero, Mark L.; Werner, Henrica Maria Johanna; Woie, Kathrine; Nordskar, Nina Jebens; Nilsen, Elisabeth Berge; Engh, Anna Marie Ellström; Vistad, Ingvild; Rege, Astri; Lode, Margaret Sævik; Andreasen, Stine; Haldorsen, Ingfrid S.; Trovik, Jone; Krakstad, Camilla.Longitudinal effects of adjuvant chemotherapy and lymph node staging on patient-reported outcomes in endometrial cancer survivors: a prospective cohort study. American Journal of Obstetrics and Gynecology 2021; Volum 226.(1) s.1-20
15. Tennfjord, Merete Kolberg; Gabrielsen, Rakel; Tellum, Tina.Effect of physical activity and exercise on endometriosis-associated symptoms: a systematic review. BMC Women's Health 2021; Volum 21.
16. Peyronnet, Benoit; Lapitan, Marie Carmela; Tzelves, Lazaros; O'Connor, Eabhann; Nic An Ríogh, Aisling; Manso, Margarida; Yuan, Cathy Yuhong; Arlandis, Salvador; Bø, Kari; Costantini, Elisabetta; Farag, Fawzy; Groen, Jan; Nambiar, Arjun K.; Phé, Véronique; van der Vaart, Huub; Omar, Muhammad Imran; Harding, Chris.Benefits and Harms of Conservative, Pharmacological, and Surgical Management Options for Women with Bladder Outlet Obstruction: A Systematic Review from the European Association of Urology Non-neurogenic Female LUTS Guidelines Panel. European Urology Focus 2021
17. Onstad, Solveig Karbø; Solnes Miltenburg, Andrea; Strøm-Roum, Ellen Marie. Uterusruptur hos førstegangsfødende. Tidsskrift for Den norske legeforening 2021;Volum 141.(13)
18. Solnes Miltenburg, Andrea; van Pelt, Sandra; Kiritta, Richard; Meguid, Tarek; Sundby, Johanne Sommerschild.Symphysis-fundal height, gestational age and its value for identification of foetuses at risk in rural Tanzania: A qualitative follow-up study. African Journal of Reproductive Health 2021
19. Dantas, Lucas Ogura; Carvalho, Cristiano; Pena, Caroline C.; Breda, Carolina Carreira; Driusso, Patricia; Ferreira, Cristine Homsi Jorge; Bø, Kari.Mobile health technologies for the monitoring of menstrual cycle: A systematic review of online stores in Brazil. Journal of Obstetrics and Gynaecology Research 2021 ;Volum 48.(1) s.5-14
20. Jiang, Nan; Grytten, Jostein; Kinge, Jonas Minet.Inequality in access to dental services in a market-based dental care system: A population study from Norway 1975–2018. Community Dentistry and Oral Epidemiology 2021
21. Gottschalk, Marthe Sørli; Eskild, Anne; Hofvind, Solveig; Bjelland, Elisabeth Krefting.The relation of number of childbirths with age at natural menopause: a population study of 310 147 women in Norway. Human Reproduction 2021 ;Volum 37.(2) s.333-340
22. Antônio, Flávia Ignácio; Bø, Kari; Pena, Caroline C.; Bueno, Sabrina M.; Mateus-Vasconcelos, Elaine Cristine Lemes; Fernandes, Ana Carolina Nociti Lopes; Ferreira, Cristine Homsi Jorge.Intravaginal electrical stimulation increases voluntarily pelvic floor muscle contractions in women who are unable to voluntarily contract their pelvic floor muscles: a randomised trial. Journal of Physiotherapy 2021
23. Fardal, Øystein; Skau, Irene; Nevland, Kristian; Grytten, Jostein Ivar.Proposing a model for auditing data quality of long-term periodontal outcome studies. Acta Odontologica Scandinavica 2021 s.1-9
24. Bø K: Evidence for pelvic floor muscle training with and without biofeedback for female urinary incontinence. IN: Ostergard, Dwyer P. Ostergard's Urogynecology and Pelvic Floor Dysfunction textbook. 7th edition. 2021.
25. Pena CC, Bø K, Fernandes ACNL, de la Ossa AMP, Aleixo ND, de Oliveira FMF, Ferreira CHJ :Are visual inspection and digital palpation reliable methods to assess ability to perform a pelvic floor muscle contraction? An intra-rater study. Neurourol Urodyn. 2021 Jan 21. doi: 10.1002/nau.24609. Online ahead of print. PMID: 33476075
26. Dantas LO, Cristiano, Ferrari A, Driusso P, Ferreira CHJ, Bø K: Mobile health technologies for the management of urinary incontinence: a systematic review. Braz J Phys Ther. 2021 Jan 13:S1413-3555(21)00001-0. doi: 10.1016/j.bjpt.2021.01.001. Online ahead of print.
27. Mota P, Bø K: ACOG Committee Opinion No. 804: Physical Activity and Exercise During Pregnancy and the Postpartum Period. Letter to the editor. Obstet Gynecol . 2021 Feb 1; 137(2): 376. doi: 10.1097/AOG.0000000000004267. Affiliations expand. PMID: 33481514 DOI: 10.1097/AOG.0000000000004267
28. Skaug KL, Engh ME, Frawley H, Bø K: Urinary and anal incontinence in female artistic gymnastics, team gymnasics and cheer-leading. Int Urogynecol J. 2021 Feb 13. doi: 10.1007/s00192-021-04696-z. Online ahead of print.
29. Frawley H, Shelly B, Morin M, Bernard S, Bo K, Digesu A, Dickinson T, Goonewardene S, McClurg D, Rahnama S, Schizas IA, Slieker-ten Hove MCP, Takahashi S, Guevera J: An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment. Neurourol Urodyn. 2021 Apr 12. doi: 10.1002/nau.24658. Online ahead of print.
30. Bø K, Haakstad LAH, Paulsen G, Rustaden AM: Does onset and performance of regular heavy resistance training cause urinary incontinence? A randomized controlled trial of overweight sedentary women. Online ahead of print IUGJ 2021. DOI. 10.1007/s00192-021-04739-5
31. Brækken IH, Stuge B, Bø K: Measurement of pelvic floor muscle function with manometry and surface EMG. Int Urogynecol J. 2021 Jun 17. doi: 10.1007/s00192-021-04881-0. Online ahead of print. PMID: 34142181, June 2021
32. Fridén C, Haakstad LAH, Bö k, Josefsson A. FYSS rekommendationer om fysisk aktivitet och stillasittande för kvinnor under och efter graviditet. Svensk Idrottsmedicin 2021;40(2):22-26. ISSN 1103-7652
33. Dantas LO, Cristiano, Ferrari A, Driusso P, Ferreira CHJ, Bø K: Mobile health technologies for the monitoring of menstrual cycle: a systematic review of online stores in Brazil. The Journal of Obstetrics and Gynaecology Research (JOGR) 2021. Online Oct 27th 2021 https://doi.org/10.1111/jog.15082. Print: January 2022, vol 48, Issue 1, page 5-14.
34. Sigurdardottir T, Steingrimsdottir T, Geirsson RT, Halldorsson TI, Aspelund T, Bø K: Cross-sectional study of early postpartum pelvic floor dysfunction and related bother in primiparous women 6-10 weeks postpartum. Int Urogyn J https//doi.org/10.1007/s00192-021-04813-y Online publication ahead of print May 2021
35. Benvenuti MB, Bø K, Draghi S, Tandoi E, Haakstad LAH: The weight of motherhood: identifying obesity, gestational weight gain and physical activity level of Italian pregnant women. Womens Health (Lond). 2021 Jan-Dec; 17:17455065211016136. doi: 10.1177/17455065211016136. PMID: 34032172
36. Antonio F, Bø K, Pena CC, Mateus-Vasconcelos ECL, Fernandes ACNL, Ferreira CHJ: Intravaginal electrical stimulation as an intervention in women who are unable to perform a voluntary pelvic floor muscles contraction: an assessor blinded randomized controlled trial. J Physiother. 2021 Dec 21:S1836-9553(21)00131-4. doi: 10.1016/j.jphys.2021.12.004. Online ahead of print. PMID: 34952812
37. Pang KH, Campi R, Arlandis S, Bø K, Chapple CR, Costantini E, Farag F, Groen J, Karavitakis M, Lapitan MC, Manso M, Arteaga SM, Nambiar AK, An Ríogh AN, O'Connor E, Osman NI, Peyronnet B, Phé V, Sakalis VI, Sihra N, Tzelves L, van der Vaart H, Yuan Y, Omar MI, Harding CK: Diagnostic Tests for Female Bladder Outlet Obstruction: A Systematic Review from the European Association of Urology Non-neurogenic Female LUTS Guidelines Panel. European Urology Focus. Published online Sept 2021, EUF-1188; No. of Pages 16. DOI:https://doi.org/10.1016/j.euf.2021.09.003
38. Harding C, Lapitan MC, Arlandis S, Bø K, Cobussne- Boekhorst H, Constantini E, Groen J, Nambiar AK, Omar MI, Phe V, van der Vaart CH: EAU Working Group on Non-neurogenic Female LUTS. IN: European Association of Urology Guidelines 2021 edition. European Association of Urology, page 1-128. ISBN/EAN:978-94-92671-13-4
39. Forsse D, Barbero ML,Werner HMJ, Woie K, Nordskar N, Berge Nilsen E, Ellstrøm Engh M, Vistad I, Rege A, Sævik-Lode M, Andreasen S, Haldorsen IS, Trovik J, Krakstad C. [Longitudinal effects of adjuvant chemotherapy and lymph node staging on patient-reported outcomes in endometrial cancer survivors: a prospective cohort study.](https://bibsys-almaprimo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=RS_60002937890e1rsaprospectivecohortstudy&context=SP&vid=UIO&lang=no_NO) AJOGISSN: 0002-9378 , 1097-6868; DOI: 10.1016/j.ajog.2021.08.011; PMID: 34400137, 2022, Vol.226(1), p.90.e1-90.e20
40. [Gyhagen](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Gyhagen%2C+Maria) M, [Ellström Engh](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Ellstr%C3%B6m+Engh%2C+Marie) M, [Husslein](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Husslein%2C+Heinrich) H, [Koelbl](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Koelbl%2C+Heinz) H, [Nilsson](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Nilsson%2C+Ida+E+K) I. E. K, [Schulz](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Schulz%2C+Jane) J, [Wagg](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Wagg%2C+Adrian) A, [Milsom](https://obgyn.onlinelibrary.wiley.com/action/doSearch?ContribAuthorRaw=Milsom%2C+Ian).Temporal trends in obstetric anal sphincter injury from the first vaginal delivery in Austria, Canada, Norway, and SwedenActa Obstet Gynecol Scand. 2021; 100:1969–1976.  <https://doi.org/10.1111/aogs.14244>
41. Allotey J, Whittle R, Snell KIE, Smuk M, Townsend R, von Dadelszen P, Heazell AEP, Magee L, Smith GCS, Sandall J, Thilaganathan B, Zamora J, Riley RD, Khalil A, Thangaratinam S; IPPIC Collaborative Network. External validation of prognostic models to predict stillbirth using the International Prediction of Pregnancy Complications (IPPIC) Network database: an individual participant data meta-analysis. Ultrasound Obstet Gynecol. 2021 Aug 18. doi: 10.1002/uog.23757. Online ahead of print. PMID: 34405928
42. Eskild A. First trimester maternal biomarkers: can they reveal causes of cerebral palsy?Dev Med Child Neurol. 2021 Feb;63(2):127. doi: 10.1111/dmcn.14744. Epub 2020 Nov 22.
43. Grytten J, Skau I, Eskild A. Does the use of Doppler ultrasound reduce fetal mortality? A population study of all deliveries in Norway 1990-2014. Int J Epidemiol. 2021 Jun 21:dyab098. doi: 10.1093/ije/dyab098. Online ahead of print.
44. Eskild A, Skau I, Haavaldsen C, Grytten J. [Technology saves fetal lives]. Tidsskr Norske Laegeforen. 2021 Jun 28; 141(10). doi: 10.4045/tidsskr.21.0256. Print 2021 Jun 29. PMID: 34182726. Free article. Norwegian. No abstract available.
45. Kiritta R, Mrisho F, Mbulwa C, Solnes Miltenburg A, Kihunrwa A. Extensive surgery for peritoneal tuberculosis, an ongoing diagnostic challenge in resource limited setup. J Clin Images Med Case Rep. 2021; 2(2): 1093 Salvesen Fostad B, Grytten J, Rongen G, Koldsland OC, Vandevska-Radunovic V. Periodontal status in long-term orthodontic retention patients up to 10 years after treatment – a cross-sectional study. Acta Odontologica Scandinavia 2021; 79: 623-629.
46. Kinge J, Grytten J. The impact of primary care physician density on perinatal health. Evidence from a natural experiment. Health Economics 2021: 30; 2974-2994.

**Originalarbeider i internasjonale tidsskrifter, innsendt for vurdering**

Bø K: Sport and fitness activities. IN. Cardozo L and Staskin D, Eds: Textbook of Female Urology and Urogynecology, 5th Edition, 2022

Peyronnet B, Omar MI, Tzelves L, O’connor E, An Riogh AI, Manso M, Yuan C, Arlandis S, Bo K,

Costantini K, Farag F, Groen J, Nambiar A, Phé V, van der Vaart H, N’Dow J, Harding C, Lapitan MC: Benefits and harms of conservative, pharmacological, and surgical management options for women with bladder outlet obstruction: a systematic review from the European Association of Urology non-neurogenic female LUTS Guidelines Panel. Accepted in European Urol Focus 2021

Theodorsen N-M, Fersum K, Moe-Nilssen R, Bø K, Haukenes I: Effect of a specific exercise program during pregnancy on diastasis recti abdominis: study protocol for a randomized controlled trial. BMJ Open 2021. bmjopen-2021-056558.R1 In press

Ramachandra P, Kumar, P, Bø K, Maiya, GA: Comparison of postural sway changes between pregnant and nonpregnant women. Submitted to Gait and Posture, 2021

Gluppe S, Engh ME, Bø K: Primiparous women’s knowledge of diastasis recti abdominis, concerns about abdominal appearance, and perceived abdominal muscle strength 6-8 months postpartum. A cross sectional comparison study. Submitted to Women`s Health Issues June 2021

Rhode M, Burmit J, Sandvik J, Bø K: Prevalence and risk factors of urinary incontinence in US power and weight lifters. Submitted to J Womens’ Health 2021

Barcellini A, Dominoni M, Dal Mas F, Biancuzzi H, Venturini SC, Gardella B, Orlandi E, Bø K: Sexual health dysfunction and evidence for physical rehabilitation including pelvic floor muscle training after radiotherapy for gynecological cancer. In press Frontiers in Medicine, section Obstetrics and Gynecology 2021

Dalevoll Macedo M, Ellstrøm Engh M, Siafarikas F “Classification of second-degree perineal tears in the delivery ward: Assessing inter-rater agreement of a detailed classification system” Submitted to Acta Obstetricia et Gynecologica Scandinavica (AOGS)

Solnes Miltenburg A, van Pelt S, Lindskog B, Sundby J, Meguid T. Understanding women’s decision-making process for birth location in Tanzania based on individual women’s reproductive pathways: a life-course perspective. Global Health Action. In review

Solnes Miltenburg A, Kvernflaten B, Meguid T, Sundby J. Towards renewed commitment to prevent maternal mortality and morbidity: learning from 30 years of maternal health priorities. Sexual and Reproductive Health Matters. In review

Wangamati C, Ahmed S, Changole J, Drabo S, Solnes Miltenburg A. Researchers’ ethical challenges in conducting qualitative research on sexual and reproductive health and rights in sub-Saharan Africa. Development World Bioethics. In review

Haavaldsen C, Morken NH, Saugstad OD, Eskild A. Increasing prevalence of labour induction: the impact on pregnancy outcomes. An observational study of all singleton births at gestational week 37-42 in Norway during 1999-2019. Submitted to BJOG.

Ellen Blix, Anne Eskild, Irene Skau, Jostein Grytten. Has the introduction of ST waveform analysis (STAN) of the fetal electrocardiogram reduced fetal or neonatal mortality? A registry-based study in Norway. AOGS innsendt 2021.

Hilde Kristin Refvik Riise, Anne Kjersti Daltveit, Gerhard Sulo, Grethe Tell, Jannicke Igland, Marjolein Iversen, Marit Graue & Anne Eskild. Preeclampsia, offspring birth weight and risk of subsequent maternal cardiovascular disease. BMJ Open innsendt 2021.

**Manuskripter under bearbeiding**

Halle TK, Benth JS, Stær-Jensen J, Bø K, Ellström Engh M, Siafarikas F: “Development of pelvic floor dysfunction from first pregnancy up to 8 years after first delivery: a longitudinal study. In manuscript for AJOG

Costa A, Santos D, Santo S, Barros JG, Bø K, Mota P: Test-Retest of Electromyographic Biofeedback in nulliparous women and in primiparous women with grade II lacerations. In manuscript

Santos D, Costa A, Santo S, Barros JG. Bø K, Mota P: Differences in pelvic floor muscle activation between women with perineal lacerations resulting from childbirth and nulliparous women. In manuscript

Hilde G, Stær Jensen J, Siafarikas F, Engh ME Bø; K: Does pelvic floor muscle training enhance pelvic floor muscle recovery after vaginal delivery? An assessor blind randomized controlled trial. In manuscript for IUGA, 2020

Arlandis S, Nambiar A, Lapitan MC, Omar I, Bø K, Costantini E, Groen J, Peyronnet B, Phé V, van der Vaart H, Farag F, Harding C: EAU Guidelines on the management of female non-neurogenic lower urinary tract symptoms: Part 2 – Underactive Bladder, Bladder Outlet Obstruction and Nocturia. In manuscript

Averbeck MA, Lucio A, Persu C, Ortiz CN, Harding C, Shelly E, Bø K, Blanker M, e Silva EP, Al Mousa R,

Rahman S, Reynolds W, Hashim H: Conservative Management of Male Lower Urinary Tract & Pelvic Floor Dysfunction. On behalf of the Standardization Steering Committee ICS. In manuscript for Neurourol Urodyn

Sigurdardottir T, Steingrimsdottir T, Geirsson RT, Halldorsson TI, Aspelund T, Bø K: Pelvic floor muscle training to reduce pelvic organ prolapse postpartum. A randomized controlled trial. In manuscript 2022.

Nambiar A, Arlandis S, Lapitan MC, Omar I, Bø K, Costantini E, Groen J, Peyronnet B, Phé V, van der Vaart H, Farag F, Harding C: EAU Guidelines on the diagnosis and management of female non-neurogenic lower urinary tract symptoms: Part 1 - Overactive bladder, Stress Urinary Incontinence and Mixed Urinary Incontinence. In manuscript 2021

Torstveit AH, Miaskowski,C Løyland, B, Grov EK , Seel Ritchie C, Paul SM, Ellström Engh M, Utne I, Characteristics associated with decrements in objective measures of physical function in older oncology patients during chemotherapy. In manuscript 21

Kjøllesdal M, Ellström Engh M, Brännström M, Stjerndahl J-H, Småstuen MC,Marcickiewicz J.Laparoscopic sacral colpopexy versus vaginal sacrospinous colpopexy for treatment of post-hysterectomy vaginal vault prolapse. In manuscript

Langås JR, Eskild A, Hofvind S, Bjelland EK. Does alcohol intake influence age at menopause? A population study of women in Norway. (In progress)

Bjelland EK, Gran JM, Hofvind S, Eskild A. The duration of the reproductive period and breast cancer risk: A population study of women in BreastScreen Norway. (In progress)

Drevin J, Bean C, Pingel R, Bjelland EK, Hallqvist J. The association between childhood abuse and unplanned pregnancies: does educational level matter? (In progress)

Bjelland EK, Owe KM, Strøm-Roum EM, Eskild A. Weight gain, physical activity and placental weight: A population study. (In progress)

Owe KM, Bjelland EK, Eberhard-Gran M, Vangen S. Recurrence risk of pelvic girdle pain: A large population study. (In progress)

Kiritta R, Solnes Miltenburg A. Maternal Mortality between 2017-2019 at Bugando Medical Center, Mwanza Tanzania. (In progress)

Sagberg K, Eskild A, Sommerfelt S, Halle TK, Higgins L, Hillestad V. Simple biometric placental measurements by ultrasound - any relation with placental volume? In progress.

Peterson H, Eskild A, Sommerfelt S, Gjesdal KI, Borthne A, Mørkrid L, Hillestad V. Percentiles of intrauterine placental volume and placental volume relative to fetal volume: A prospective magnetic resonance imaging study. In review.

Eskild. A et al. Inter-pregnancy interval and birthweight. A population study in Norway. In preparation 2021

**Abstracts/presentasjoner på nasjonale og internasjonale fagmøter**

Gluppe SB, Ellstrøm Engh M, Bø K: Abstract number: 1738 Weaker abdominal muscle strength and higher prevalence of abdominal pain in women with diastasis recti abdominis. World Physiotherapy Meeting March 2021, e-poster

Gluppe SB, Ellström Engh M, Bø K: Gjenspeiler kvinners kunnskap om korrekt bekkenbunnskontraksjon deres hyppighet av bekkenbunnstrening? En deskriptiv tverrsnittstudie. Forskningsseminar «På stødig bunn - det siste innen forskning på inkontinens og bekkenbunnsykdom i Norge" Nasjonal kompetansetjeneste for inkontinens og bekkenbunnsykdom (NKIB), Radisson Blue, Gardermoen, 2-3 June, 2021. Skaug KL, Eng ME, Frawley H,

Bø K: Bekkenbunnsplager blant norske styrke- og vektløftere. Forskningsseminar «På stødig bunn - det siste innen forskning på inkontinens og bekkenbunnsykdom i Norge" Nasjonal kompetansetjeneste for inkontinens og bekkenbunnsykdom (NKIB), Radisson Blue, Gardermoen, 2-3 June, 2021

Halle TK, Benth JS, Stær-Jensen J, Bø K, Ellström Engh, Siafarikas F: Development of pelvic floor dysfunction from first pregnancy up to 8 years after first delivery: a longitudinal study. Abstract ICS, Melbourne 2021

Culleton-Quinn E, Daly D, Fleming N, Bø K: Female athletes’/sportswomen’s experiences of incontinence and pelvic floor symptoms: A systematic review and meta synthesis. Abstract ICS, Melbourne 2021

Ness K, Hilde G, Siafarikas F, Stær-Jensen J, Ellström Engh M, Bø K: Recovery of vaginal resting pressure, pelvic floor muscle strength and endurance 12 months postpartum in primiparous women, Abstract IUGA, Singapore 2021

Sigurdardottir T, Steingrimsdottir T, Geirsson RT, Halldorsson TI, Aspelund T, Bø K Pelvic organ prolapse and postpartum pelvic floor muscle training. A randomized controlled trial of primiparous women. Abstract IUGA, Singapore 2021

Halle TK, Šaltytė Benth J, Stær-Jensen J, Bø K, Engh M, Siafarikas F: Development of pelvic floor dysfunction from first pregnancy up to 8 years after first delivery: a longitudinal study. Norsk Gynekologiforening Årsmøte 2021

Haakstad LAH, Voldner N, Bø K: Norske mødre blir stadig eldre – kan regelmessig trening være en modifiserbar faktor som senker den aldersrelaterte risikoprofilen for gravide? Idrettsmedisinsk høstkongress, Oslo Nov 2021

Skaug KL, Bø K, Engh ME, Frawley H Bekkenbunnsplager blant norske styrke- og vektløftere

Idrettsmedisinsk høstkongress, Oslo Nov 2021

Kjøllesdal M, Ellström Engh M,, Brännström M, Stjerndahl J-H, Småstuen MC, Marcickiewicz JLaparoscopic sacral colpopexy versus vaginal sacrospinous colpopexy for treatment of post-hysterectomy vaginal vault prolapse Norsk Gynekologisk forening Årsmøte 2021

Dalevoll Macedo, M, Ellstrøm Engh, M, Siafarikas, F «Assessing agreement of a new classification system for second-degree perineal tears" Abstract IUGA 2021

Dalevoll Macedo, M, Ellstrøm Engh, M, Siafarikas, F» Introduksjon av et nytt klassifiseringssystem for grad 2 perinealrifter: I hvilken grad er jordmødre enige?»

Gottschalk MS, Eskild A, Hofvind S, Bjelland EK. The association of number of childbirths with age at menopause: A population study of women in Norway. Muntlig presentasjon. Norsk gynekologisk forenings årsmøte 2021, Tønsberg.

Sagberg K, Eskild A, Sommerfelt S, Gjesdal KI, Higgins L, Borthne A, Hillestad V. Placental volume in gestational week 27 measured by three dimensional (3D) ultrasound and magnetic resonance imaging (MRI). European Congress of Obstetrics and gynecology. Athen. Podium.

Peterson H, Eskild A, Sommerfelt S, Gjesdal KI, Borthne A, Mørkrid L, Hillestad V. Intrauterin placental volume and placental volume relative to fetal volume: percentiles based on magnetic resonance imaging. European Congress of Obstetrics and gynecology. Athen. Podium.

Sagberg K, Lie T, Peterson H, Bø LE, Gjedal KI, Hillestad V, Eskild A. Måling av morkakevolum ved bruk av frihånds ultralydopptak og maskinlæring. Norsk gynekologisk forenings årsmøte. Tønsberg. Poster.

Peterson H, Eskild A, Sommerfelt S, Gjesdal KI, Borthne A, Mørkrid L, Hillestad V. Intrauterin placental volume and placental volume relative to fetal volume: percentiles based on magnetic resonance imaging. European Congress of Obstetrics and gynecology. Norsk gynekologisk forenings årsmøte. Tønsberg. Podium.

Haavaldsen C, Morken NH, Eskild A. Antall induksjoner øker – har det noen betydning for utfallet? Muntlig presentasjon. Norsk gynekologisk forenings årsmøte 2021, Tønsberg.

Poster: Kvinneklinikken Ahus, Internt Elektronisk Kvalitetsregister for kvinner med underlivsprolaps (descens urogenitalis)**.** Teig CJ, Rimstad K, Engh M, Schjønsby P, Årving I , Anne Grete Paulsen, Memona Majida. Bekkensenteret, Kirurgisk divisjon Ahus, Kvinneklinikken Ahus, Universitet i NGF Årsmøte, Tønsberg, 2021.

Anne Eskild, Lars Mørkrid, Siri Beisland Mortensen, Truls Michael Leegaard. Prevalence of antibodies against SARS-CoV-2 among pregnant women in Norway during the period December 2019 through December 2020. Muntlig presentasjon. Årsmøtet NGF 2021.

Anne Eskild, Irene Skau, Camilla Haavaldsen, Ola Didrik Saugstad, Jostein Grytten. Inter-pregnancy interval and birthweight. A population study in Norway. Abstract. Controversies in obstetrics and gynecology. Berlin 2021

**Inviterte foredrag**

**Kari Bø**

Invited presentations (still corona pandemics, 17) University of Tampere, Finnish Association of Physiotherapists in Pelvic Floor Tampere, Finland Feb 4th 2021. Webinar 1: How does exercise/sport affect the pelvic floor? Webinar 2: Importance of pelvic floor rehabilitation during pregnancy and postpartum.

Latin American Pelvic Floor Association Annual Meeting March 2021. Webinar Keynote: Bø K: Are there alternative exercises to pelvic floor muscle training to treat female SUI?

Brazilian Conference of Physiotherapy March 2021. Webinar Keynote Bø K: Importance of Women’s Health Physiotherapy

Scientifica, India. March 28th 2021. Digitalt. Bø K: Are there alternative exercises to pelvic floor

muscle training for urinary incontinence and pelvic organ prolapse?

Akershus University Hospital Digitalt: The Biennial Pelvic Floor Centre Symposium 2021, April 7th

2021: Mesh complications in pelvic organ Prolapse. Bø K: Prevention and treatment of pelvic organ prolapse

Digitalt Webinar MT Norge April 8th 2021: Physiotherapy and diastasis recti abdominis

Digitalt. Association for Continence Advice, GB, May 21-22nd 2021. Bø K: Keynote: Are there

alternative exercises to pelvic floor muscle training for female SUI? 11.30-12.00

Monday 24th May

Digitalt. Instituto Politécnico de Lisboa (IPL) Master program in Physiotherapy on Women’s Health

lectures May 28th and 29th 2021; 1.Bø K: Assessement of pelvic floor muscle function. 2. Is physical activity good or bad for the pelvic floor? 3. Evidence for pelvic floor muscle training and alternative methods to treat urinary incontinence. 4. Evidence for pelvic floor muscle training for pelvic organ prolapse

Webinar II International Congress of Sports Physiotherapy Real Madrid University School Spain, June 15th 2021. "WOMEN, SPORTS AND PHYSIOTHERAPY" K Bø: Should we advocate PFMT to reduce low back pain?

European Urology Association Annual Meeting July 8-12, July 9th, 2021, Virtual. Guideline Session I: Urethral strictures and female UI. Live from the studio: Thematic Session 01: Flash seminar: Bø K: Pelvic floor muscle training for stress urinary incontinence: A long term solution?: PRO/ C.H. Van der Vaart; CON

Digitalt. FIGO 2021 World Congress Urogynecology and Pelvic Floor Committee Workshop: Title: Prevention of Pelvic Floor Dysfunction (PFD): Is it time to take action? Bø K: Role of ante and post-partum PF rehabilitation in prevention of PFD

Luxembourg Institute for High Performance in Sports a.s.b.l., Sports and culture centre d’Coque, Luxembourg, Sept 23rd 2021. Bø K: Is physical activity good or bad for the pelvic floor?

Digitalt. 17th Peking University Urogynecology and Cosmetic Gynecology Symposium.29th-31st,

Oct., 2021: Keynote: Bø K: How to treat early postpartum symptomatic pelvic floor dysfunction and diastasis rectic abdominis?

Milan Master program Oct 30th 2021: Bø K: 1.PFMT and UI 2.PFMT during pregnancy and after childbirth 3. Practical PFMT class

Digitalt. Norsk Kiropraktorforening: Kurs i bekkenproblematikk 19.-20. nov 2021 Bø K:

Rectusdiastase - hva nå?

Swiss Sport Physiotherapy Nov19th 2021: Bø K: “Is physical activity good or bad for the pelvic floor?”

Pelvisuisse Symposium Nov 20th 2021: Bø K “The pelvic floor and sport in the postpartum

period”

**Marie Ellström Engh**

NFF: Foreleser på kurs i inkontinens og bekkenbunnsplager Nov 2021

**Franziska Siafarikas**

Inkontinens og bekkenbunnsplager 01.12.21 (Norsk Fysioterapeutforbund. Kursleder er Kari Bø)

Fagdag Kvinneklinikken 15.11.2021

**Anne Eskild**

Endringer i reproduksjonsmønster i Norge. Høyres kvinneforum

Debattmøte Civita og Menneskeverd. Om fødselstallene i Norge med statsminister Erna Solberg og stortingsrepresentant Tuva Moflag (November 2020).

Hvorfor har kvinneavdelingen fått for mye å gjøre. Jordmorforeningens årsmøtet. November 2021.

**Elisabeth K Bjelland**

Myter om bekkenleddsmerter: Resultater fra Den norske mor, far og barn-undersøkelsen. Norsk idrettsmedisinsk institutt 22.9.2021.

**Camilla Haavaldsen**

Overtidige svangerskap. Obstetrisk forum. Norsk gynekologisk forenings årsmøte 2021, Tønsberg.

Overtid og induksjon – når indusere ved overtidig svangerskap. Nasjonal induksjonsdag v/Norgine. September 2021.

 **C Teig**

Elektronisk Kvalitetsregister for Kvinner med Underlivsprolaps, Nasjonal Bekkenbunns Forskningsnettverk, Gardemoen, November, 2021

**Ekstern finansiering**

Marie Ellström Engh - Strategiske midler innvilget

Anne Eskild - Strategiske midler innvilget

Anne Eskild søknad SFF NFR. Avslått

Anne Eskild søknad Jebsen senter. Avslått

Anne Eskild søknad HSØ. Avslått pga. formfeil

Anne Eskild NFR. Avslått

Teig C - Interne Strategiske Forskningsmidler, Ahus, 2021

Medisinsk avstandsoppfølging for pasienter med anal inkontinens under COVID-19 pandemi

**Arrangerte kurs**

NFF: Inkontinens og bekkenbunnsplager Nov 2021

**Fagfellevurderinger**

**Bø K**

Review for Neurourol Urodyn

International J Urogynecol

Physical Therapy

J Physical Therapy

Br J Sport Med

Scan J Med Sci Sports

American J Obstet Gynecol

**Eskild A**

BMC Pregnancy and Childbirth

Paediatric and Perinatal Epidemiology

New Eng J Medicine

International Journal of Epidemiology

Placenta

3. Opponent UiO. Tommy Frøseth Aae. Surgical aspects and microRNA in knee cartilage pathology. September 2021.

**Bjelland EK**

BMJ

Hum Reprod

**Ellström Engh M**

Fagfelle vurdering for FHI Hysterektomiforenklet metodevurdering

Hysterektomi ved kraftige menstruasjonsblødninger

**Siafarikas F**

Ultrasound in Obstetrics and Gynecology

2. Opponent Seema Mathews Disputas “Urinary and colorectal-anal distress in women- prevalence, risk factors and effect of pelvic floor muscle exercise in women with pelvic organ prolapse.” 18 June 2021.

**Haavaldsen C**

Fagfellevurderer for FHI: «Håndtering av svangerskap som har passert termin. Systematisk oversikt»

**Undervisning**

Eskild A, Ellström Engh M og Siafarikas F,

* Forelesninger medisinstudenter
* Smågruppeundervisning medisin studenter
* Internundervisning stipendiater hver 14. dag (1 time)
* Internundervisning leger hver uke (20 min)
* Veiledning PhD- og PostDoc-stipendiater
* Forelesning introduksjonskurs gynekologi og obstetrikk

Haavaldsen C.

* Forelesing introduksjonskurs gynekologi og obstetrikk
* Forelesing akuttkurs obstetrikk
* Foredrag for Nasjonal nettverksgruppe for fødselsomsorgen, HDir
* Medlem referansegruppen for nasjonal retningslinje for fødselsomsorgen

#### Bø K

Leder av sakkyndig komite opptak PhD program Norges idrettshøgskole: Anouk Urhausen: Knee function and osteorarthritis 10 years after operative and nonoperative treatment after anterior cruciate ligament rupture, 2021

Komite for professor II stilling, Institutt for idrettsmedisinske fag, Norges idrettshøgskole, 2021

Komite for opprykk til professor; Thomas Losnegard, Norges idrettshøgskole, 2021

Opponent PhD, Helle Nygaard Gerbild, Aalborg universitet, Sexologisk Forskningscenter, Klinisk Institut. Aalborg universitets hospital: Development of the complex intervention: Physical Activity to reduce Vascular Erectile Dysfunction April 2021

Eksternt oppnevnt ekspert for Statens beredning för medicinsk och social utvärdering (SBU) i Sverige for regjeringsoppnevnt utvalg for «utvärdering av det vetenskapliga stödet för behandling av abdominell rektusdiastas»

ICS: working group on: An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment.

ICS: Working group: Conservative Management of Male Lower Urinary Tract & Pelvic Floor Dysfunction. Standardization Steering Committee EUA: EAU Working Group on Non-neurogenic Female LUTS

IUGA: Head of international working group on evidence for PFMT for POP

**Populærvitenskap/media**

**Bø K**

Interviews

Sandra Gutierrez, Popular Science magazine: Interview about “Triggerpoints” 13.01.21.

Christina Yu. Interview on women in sports and the science behind their performance, April 2021.

Karoline Skrøder, Dagbladet, Juli 2021: om bekkenbunnstrening.

Blogg interview BMJ Open SEM, Ana Morais Azevedo: Pelvic Floor in Female Athletes

https://blogs.bmj.com/bmjopensem/ May 2021.

Podcast: FYSI PODCAST v/ Fredrik Sjøberg: om bekkenbunnstrening; aug. 2021.

Kommentar om bekkenbunn og seksualitet v/ frilansjournalist Madeleine Ferre, KlikkHelse Aug 2021.

TV intervju Luxemburg TV 23.09.21: om trening under svangerskap og etter fødsel.

PodCast: Engler&hormoner: Om trening av delte magemuskler og evidensgrunnlag generelt for å kunne gå ut med anbefalinger om trening 11.10.21.

YouTube: NKS om kvinnehelse under svangerskap og etter fødsel. 1: Bekkenbunn 2. Delte magemuskler.

Expressen Stockholm v/Magnus Nystrøm; Om eliteidrett og mammarollen, 13.10.21.

New Scientist Magazine v/Nicola Jones: Pelvic floor health, Nov 2021.

God morgen Norge v/Vår Staude tirsdag 23.nov 2021: om manglende oppfølging av kvinnehelse problemer under svangerskap og etter fødsel.

Eskild A, Kvinner som vil og kan føde mange barn, er blitt mangelvare. Kronikk Aftenposten 2. feb.

Dagsnytt 18. Om nedgangen i fødselsrater.

[Hvor mange uker skal abort være selvbestemt? (minervanett.no)](https://www.minervanett.no/abort/hvor-mange-uker-skal-abort-vaere-selvbestemt/380015).

Saugstad OD, Eskild A. Koronainfeksjon blant barn og unge. Aftenposten kronikk august 2021.