

GUIA DE ATIVIDADE FÍSICA PARA A POPULAÇÃO BRASILEIRA

MATERIAL SUPLEMENTAR



MINISTÉRIO DA SAÚDE
Secretaria de Atenção Primária à Saúde
Departamento de Promoção da Saúde

GUIA DE ATIVIDADE FÍSICA PARA A POPULAÇÃO BRASILEIRA

MATERIAL SUPLEMENTAR



PROCESSO DE ELABORAÇÃO E BIBLIOGRAFIA DO GUIA
DE ATIVIDADE FÍSICA PARA A POPULAÇÃO BRASILEIRA

MATERIAL SUPLEMENTAR

PROCESSO DE ELABORAÇÃO DO GUIA DE ATIVIDADE FÍSICA PARA A POPULAÇÃO BRASILEIRA

O Guia de Atividade Física para a População Brasileira foi construído em parceria com a Universidade Federal de Pelotas, que reuniu um corpo de 70 pesquisadores da área da atividade física relacionada à saúde, além do corpo técnico do Ministério da Saúde e da Organização Pan-Americana de Saúde (OPAS). O processo de construção ocorreu por meio de criteriosa revisão da literatura científica; escutas a setores e instituições relacionados, especialistas e população; e, consulta pública. Esses processos reforçam o compromisso do Ministério da Saúde com a promoção da atividade física e com a melhoria das condições de saúde, garantindo que a população brasileira tenha acesso a um documento de qualidade.

Para promover a construção coletiva e proporcionar a ampla participação e discussão sobre o conteúdo deste documento, foram realizadas as etapas descritas a seguir. Cabe destacar que em decorrência da pandemia do novo Coronavírus todos os procedimentos descritos foram adaptados de forma que ocorressem online.

1. Formação da equipe de trabalho

Oito pesquisadores compuseram o comitê científico, com representantes de todas as regiões do Brasil, além de integrantes do corpo técnico da Coordenação- Geral de Promoção da Atividade Física e Ações Intersetoriais (CGPROFI) do Ministério da Saúde e da Organização Pan-Americana de Saúde (OPAS). Foram abertos editais para seleção de pesquisadores para atuarem na elaboração do texto do Guia, um para coordenadores e outro, para componentes dos grupos de trabalhos (GTs). Os GTs foram criados de acordo com as temáticas dos capítulos do Guia: 1) conceitos relacionados a atividade física; 2) crianças até 5 anos; 3) crianças e Jovens de 6 a 17 anos; 4) adultos; 5) idosos; 6) educação física escolar; 7) gestantes; e, 8) pessoas com deficiência. Dessa forma, cada um dos 8 GTs foi composto por um coordenador, seis ou sete integrantes pesquisadores, um membro do comitê científico e um técnico do Ministério da Saúde. Por cinco meses, foram realizadas reuniões online semanais em cada GT e do comitê científico, onde eram definidos e deliberados os processos de escrita do Guia.

2. Revisões na literatura científica

Foi realizada uma vasta e criteriosa revisão da literatura científica a fim de buscar as melhores evidências sobre os benefícios da atividade física no escopo de cada um dos capítulos. Além disso, as Recomendações Globais de Atividade Física da Organização Mundial da Saúde publicadas em 2020 foram a base para a quantidade e volume da atividade física recomendada por ciclos de vida no Guia brasileiro.

3. Oficinas de escuta com diversos atores

Para nortear a escrita do Guia, a equipe de trabalho realizou algumas atividades com a finalidade de escutar a opinião de diferentes atores sobre qual deveria ser a abordagem e o conteúdo do novo Guia. Cada GT escutou atores envolvidos no tema de seu capítulo por meio de entrevistas, questionários eletrônicos, rodas de conversa e grupos focais. O objetivo era entender a dificuldade que cada um desses atores encontrava para incluir a atividade física no dia a dia, verificando o que esperavam de um Guia de atividade física. Participaram das escutas: crianças e adolescentes, pais e responsáveis, professores, profissionais de saúde, adultos e idosos, gestantes e puérperas, pessoas com deficiência, gestores estaduais e municipais da área da saúde e da educação, conselhos profissionais e outras entidades engajadas na promoção da atividade física.

4. Consolidação do texto do Guia

Com base nas informações obtidas pelas evidências científicas e nas oficinas de escuta, cada GT redigiu seu capítulo, utilizando um template pré estabelecido pelo comitê científico. Esses textos foram consolidados pelo comitê científico e seguiram para validação interna no Ministério da Saúde.

5. Consulta pública

O texto elaborado pela equipe de trabalho e validado pelo Ministério da Saúde foi divulgado na plataforma online oficial do Ministério da Saúde e ficou disponível para receber manifestações no período de 14 a 31 de agosto de 2020, via questionário online. Essa etapa teve por objetivo tornar pública a versão elaborada e receber contribuições da sociedade. Foram recebidas 312 contribuições de 264 indivíduos ou instituições. Após a consulta pública, a equipe de trabalho consolidou as contribuições, e as incorporou ao texto, constituindo assim a redação final do Guia de Atividade Física para a População Brasileira.

6. Elaboração do plano de comunicação

Visando a facilitar a divulgação da publicação após seu lançamento, está sendo traçado um plano de comunicação, com apoio de profissionais da área da promoção da atividade física e comunicação.

7. Divulgação e implementação

O grupo de trabalho está elaborando um documento voltado a profissionais de saúde do SUS a fim de auxiliá-los a criar estratégias de implementação do Guia em sua dinâmica de trabalho.

BIBLIOGRAFIA

ADESEGUN, D. et al. Prenatal exercise and pre-gestational diseases: a systematic review and meta-analysis. **Journal of Obstetrics and Gynaecology Canada**, Toronto, v. 41, n. 8, p. 1134-1143, Aug. 2019.

ÁLVAREZ-BUENO, C. et al. Academic achievement and physical activity: a meta-analysis. **Pediatrics**, Springfield, Ill., v. 140, n. 6, p. e20171498, Dec. 2017.

AMORIM, T. C.; AZEVEDO, M. R.; HALLAL, P. C. Physical activity levels according to physical and social environmental factors in a sample of adults living in South Brazil. **Journal of Physical Activity & Health**, Champaign, IL, v. 7, p. S204-S212, July 2010. Suppl. 2.

ANABY, D. et al. The effect of the environment on participation of children and youth with disabilities: a scoping review. **Disability and Rehabilitation**, London, v. 35, n. 19, p. 1589-1598, Sept. 2013.

ANDREATO, L. V. et al. The influence of high-intensity interval training on anthropometric variables of adults with overweight or obesity: a systematic review and network meta-analysis. **Obesity Reviews**, Oxford, v. 20, n. 1, p. 142-155, Jan. 2019.

AUGESTAD, L. V. Physical activity, physical fitness, and body composition among children and young adults with visual impairments: A systematic review. **British Journal of Visual Impairment**, [s. l.], v. 33, n. 3, p. 167-182, Sept. 2015.

AUSTRALIA. Department of Health. **Australian 24-Hour Movement Guidelines for Children (5-12 years) and Young People (13-17 years)**: an integration of physical activity, sedentary behaviour, and sleep. Canberra: Commonwealth Department of Health, 2017.

AUSTRALIAN COUNCIL FOR HEALTH, PHYSICAL EDUCATION AND RECREATION. **ACHPER NATIONAL POSITION STATEMENT**: Support of the Australian Curriculum: Health and Physical Education. 2017. Disponível em: <https://www.achper.org.au/documents/item/393>. Acesso em: 13 jul. 2020.

BARBOSA FILHO, V. C. et al. Promoting physical activity for children and adolescents in low- and middle-income countries: An umbrella systematic review: A review on promoting physical activity in LMIC. **Preventive Medicine**, [s. l.], v. 88, p. 115-126, July 2016.

BARRETO, P. de S. et al. Association of Long-term Exercise Training With Risk of Falls, Fractures, Hospitalizations, and Mortality in Older Adults: A Systematic Review and Meta-analysis. **JAMA Internal Medicine**, Chicago, v. 179, n. 3, p. 394-405, Mar. 2019.

- BECERRA FERNANDEZ, C. A.; MERINO-MARBAN, R. Efficacy of hamstring stretching programs in schoolchildren: A systematic review. **Timisoara Physical Education and Rehabilitation Journal**, [s. l.], v. 8, n. 5, p. 36-43, 2015.
- BEETHAM, K. S. et al. The effects of vigorous intensity exercise in the third trimester of pregnancy: a systematic review and meta-analysis. **BMC Pregnancy and Childbirth**, London, v. 19, n. 1, p. 281, Aug. 2019.
- BERGHELLA, V.; SACCOME, G. Exercise in pregnancy! **American Journal of Obstetrics & Gynecology**, [s. l.], v. 216, n. 4, p. 335-337, Apr. 2017.
- BLOND, K. et al. Association of high amounts of physical activity with mortality risk: a systematic review and meta-analysis. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 54, n. 20, p. 1195-1201, 2020.
- BOHM, A. W. et al. Social support and leisure-time physical activity among the elderly: a population-based study. **Journal of Physical Activity & Health**, Champaign, IL, v. 13, n. 6, p. 599-605, June 2016.
- BORDE, R. et al. Dose-response relationships of resistance training in healthy old adults: a systematic review and meta-analysis. **Sports Medicine**, Auckland, N.Z., v. 45, n. 12, p. 1693-1720, 2015.
- BOUAZIZ, W. et al. Effect of aerobic training on peak oxygen uptake among seniors aged 70 or older: a meta-analysis of randomized controlled trials. **Rejuvenation Research**, Larchmont, NY, v. 21, n. 4, p. 341-349, Aug. 2018.
- BOUAZIZ, W. et al. Effect of high-intensity interval training and continuous endurance training on peak oxygen uptake among seniors aged 65 or older: A meta-analysis of randomized controlled trials. **International Journal of Clinical Practice**, Oxford, v. 74, n. 6, p. e13490, Feb. 2020.
- BRAITHWAITE, R.; SPRAY, C. M.; WARBURTON, V. E. Motivational climate interventions in physical education: A meta-analysis. **Psychology Sport Exercise**, [s. l.], v. 12, n. 6, p. 628-638, 2011.
- BRASIL. Ministério do Esporte. **Diesporte**: diagnóstico nacional do esporte. Brasília, DF: Ministério do Esporte, 2016. Caderno 2. Disponível em: <http://cev.org.br/arquivo/biblioteca/4033637.pdf>. Acesso em: 7 jul. 2020.
- BROWN, A. E. et al. **Development of Evidence-based Physical Activity Recommendations for Adults (18-64 years)**. Australia: Commonwealth of Australia, 2012. Report prepared for the Australian Government Department of Health.

BROWN, H. E. et al. Family-based interventions to increase physical activity in children: a systematic review, meta-analysis and realist synthesis. **Obesity Reviews**, Oxford, v. 17, n. 4, p. 345-360, Apr. 2016.

BROWN, W. J.; MOORHEAD, G. E.; MARSHALL, A. L. **Choose health: Be Active: A physical activity guide for older Australians**. Canberra: Commonwealth of Australia and the Repatriation Commission, 2005.

CACCIATA, M. et al. Effect of exergaming on health-related quality of life in older adults: A systematic review. **International Journal of Nursing Studies**, Elmsford, NY, v. 93, p. 30-40, May 2019.

CANADIAN SOCIETY FOR EXERCISE PHYSIOLOGY. **Canadian 24-Hour Movement Guidelines for Children and Youth**: an integration of physical activity, sedentary behaviour, and sleep. Ottawa: The Canadian Society for Exercise Physiology, 2016.

CARLON, S. L. et al. Differences in habitual physical activity levels of young people with cerebral palsy and their typically developing peers: a systematic review. **Disability and Rehabilitation**, London, v. 35, n. 8, p. 647-655, Apr. 2013.

CARSON, V. et al. Systematic review of the relationships between physical activity and health indicators in the early years (0-4 years). **BMC Public Health**, [s. l.], v. 17, n. 845, p. 33-63, Nov. 2017.

CASPERSEN, C. J. et al. Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. **Public Health Reports**, [s. l.], v. 100, n. 2, p. 126-131, Mar./Apr. 1985.

CAVAZZATTO, T. G. et al. Social-ecological correlates of regular leisure-time physical activity practice among adults. **International Journal of Environmental Research and Public Health**, Basel, v. 17, n. 10, p. 2-15, May 2020.

CENTERS FOR DISEASE CONTROL AND PREVENTION. **Overcoming Barriers to Physical Activity**. 10 abr. 2020. Disponível em: <https://www.cdc.gov/physicalactivity/basics/adding-pa/barriers.html>. Acesso em: 25 jun. 2020.

CENTERS FOR DISEASE CONTROL AND PREVENTION. **School health guidelines to promote healthy eating and physical activity**. Atlanta, U.S.: Department of Health and Human Services, 2011.

CHILE. **Recomendaciones para la práctica de actividad física según curso de vida**. Santiago de Chile: Ministerio del Deporte, 2017.

CHRISTIANSEN, P. K. et al. Lifestyle interventions to maternal weight loss after birth: a systematic review. **Systematic Reviews**, London, v. 8, n. 1, p. 327, Dec. 2019.

COLL, C. V. et al. Perceived barriers to leisure-time physical activity during pregnancy: A literature review of quantitative and qualitative evidence. **Journal of Science and Medicine in Sport**, Belconnen, v. 20, n. 1, p. 17-25, Jan. 2017.

CROCHEMEORE-SILVA, I. et al. Promoção de atividade física e as políticas públicas no combate às desigualdades: reflexões a partir da Lei dos Cuidados Inversos e Hipótese da Equidade Inversa. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 36, n. 6, p. e00155119, 2020.

CUSHING, C. C. et al. Systematic review and meta-analysis of health promotion interventions for children and adolescents using an ecological framework. **Journal of Pediatric Psychology**, Washington, US, v. 39, n. 8, p. 949-962, Sept. 2014.

DEPARTMENT OF HEALTH; PHYSICAL ACTIVITY; HEALTH IMPROVEMENT AND PROTECTION. **Start active, stay active**: a report on physical activity from the four home countries'Chief Medical Officers. London: Crown, 2011.

DIPETRO, L. et al. Benefits of physical activity during pregnancy and postpartum: an umbrella review. **Medicine and Science in Sports and Exercise**, Madison, Wis., v. 51, n. 6, p. 1292-1302, June 2019.

DU, S. et al. Taichi exercise for self-rated sleep quality in older people: a systematic review and meta-analysis. **International Journal of Nursing Studies**, Oxford, v. 52, n. 1, p. 368-379, Jan. 2015.

DUDLEY, D.; BURDEN, R. What effect on learning does increasing the proportion of curriculum time allocated to physical education have? A systematic review and meta-analysis. **European Physical Education Review**, Driffield, Inglaterra, v. 26, p. 85-100, 2020.

EKELUND, U. et al. Do the associations of sedentary behaviour with cardiovascular disease mortality and cancer mortality differ by physical activity level? A systematic review and harmonised meta-analysis of data from 850 060 participants. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 53, n. 14, p. 886-894, July 2019.

ELSHAHAT, S. et al. Built environment correlates of physical activity in low- And middle-income countries: A systematic review. **PLoS One**, [s. l.], v. 15, n. 3, p. 1-19, 2020.

ESCALANTE, Y. et al. Playground designs to increase physical activity levels during school recess: a systematic review. **Health Education and Behavior**, [s. l.], v. 41, n. 2, p. 138-144, 2014.

EUROPEAN PHYSICAL EDUCATION ASSOCIATION. **European Framework of Quality Physical Education**. 2018. Disponível em: <http://www.eupea.com/wp-content/uploads/2018/02/European-Framework-of-Quality-PE.pdf>. Acesso em: 5 jul. 2020.

EVENSON, K. R. et al. Guidelines for Physical Activity during Pregnancy: comparisons from around the world. **American Journal of Lifestyle Medicine**, Thousand Oaks, Calif., v. 8, n. 2, p. 102-121, Mar./Apr. 2014.

EVENSON, K. R.; MOTTOLA, M. F.; ARTAL, R. I. Review of recent physical activity guidelines during pregnancy to facilitate advice by health care providers. **Obstetrical and Gynecological Survey**, Baltimore, Md., v. 74, n. 8, p. 481-489, 2019.

FANG, Q. et al. Effects of exergaming on balance of healthy older adults: a systematic review and meta-analysis of randomized controlled trials. **Games for Health Journal**, [s. l.], v. 9, n. 1, p. 11-23, Feb. 2020.

FEDERATION INTERNATIONALE D'ÉDUCATION PHYSIQUE. **The World Manifest of Physical Education FIEP 2000**. Disponível em: <http://fiepeurope.eu/manifest.php>. Acesso em: 5 jul. 2020.

FORECHI, L. et al. Adherence to physical activity in adults with chronic diseases: ELSABrasil. **Revista de Saúde Pública**, São Paulo, v. 52, 2018.

FRANCISCO, C. O. et al. Effects of physical exercise training on nocturnal symptoms in asthma: Systematic review. **PLoS One**, [s. l.], v. 13, n. 10, p. e0204953, 2018.

GARCÍA-HERMOSO, A. et al. Association of physical education with improvement of health-related physical fitness outcomes and fundamental motor skills among youths: A systematic review and meta-analysis. **JAMA Pediatrics**, Chicago, v. 174, p. e200223, 2020.

GASPAR, R. et al. Physical exercise for individuals with spinal cord injury: systematic review based on the international classification of functioning, disability, and health. **Journal of Sport Rehabilitation**, Champaign, IL, v. 28, n. 5, p. 505-516, July 2019.

GORDON, B. R. et al. Association of efficacy of resistance exercise training with depressive symptoms: meta-analysis and meta-regression analysis of randomized clinical trials. **JAMA Psychiatry**, Chicago, v. 75, n. 6, p. 566-576, 2018.

GUERRA, P. H. et al. Revisão sistemática dos indicadores de atividade física e de comportamento sedentário em pré-escolares sul-americanos. **Revista Paulista de Pediatria**, São Paulo, v. 38, p. 1-10, 2020.

GUIMARÃES-LIMA, M. et al. Leisure-time physical activity and sports in the Brazilian population: A social disparity analysis. **PLoS One**, [s. l.], v. 14, n. 12, p. e0225940, 2019.

GUIZELINI, P. C. et al. Effect of resistance training on muscle strength and rate of force development in healthy older adults: A systematic review and meta-analysis. **Experimental Gerontology**, Oxford, v. 102, p. 51-58, Feb. 2018.

HERROD, P. J. J. et al. Exercise and other nonpharmacological strategies to reduce blood pressure in older adults: a systematic review and meta-analysis. **Journal of the American Society of Hypertension**: JASH, New York, v. 12, n. 4, p. 248-267, Apr. 2018.

HESKETH, K. R. et al. Barriers and facilitators to young children's physical activity and sedentary behaviour: a systematic review and synthesis of qualitative literature. **Obesity Reviews**, Oxford, v. 18, p. 987-1017, Sept. 2017.

HIDAYAT, K.; ZHOU, H. J.; SHI, B. M. Influence of physical activity at a young age and lifetime physical activity on the risks of 3 obesity-related cancers: systematic review and meta-analysis of observational studies. **Nutrition Reviews**, Washington, D.C., v. 78, n. 1, p. 1-18, Jan. 2020.

HILLAND, T. A. et al. Correlates of walking among disadvantaged groups: A systematic review. **Health & Place**, [s. l.], v. 63, p. 1-10, May 2020.

HINKLEY, T. et al. Preschool children and physical activity: a review of correlates. **American Journal of Preventive Medicine**, New York, v. 34, p. 435-441, 2008.

HINO, A. A. F. et al. Accessibility to public spaces for leisure and physical activity in adults in Curitiba, Parana State, Brazil. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 35, n. 12, p. e00020719, 2019.

HOFFMANN, J. et al. Effects of a lifestyle intervention in routine care on short- and long-term maternal weight retention and breastfeeding behavior—12 months follow-up of the cluster-randomized gelis trial. **Journal of Clinical Medicine**, Basel, v. 8, n. 6, p. 876, June 2019.

HOWELLS, K. et al. Efcacy of Group-Based Organised Physical Activity Participation for Social Outcomes in Children with Autism Spectrum Disorder: A Systematic Review and Meta-analysis. **Journal of Autism and Developmental Disorders**, New York, v. 49, n. 8, p. 3290-3308, Aug. 2019.

HOYOS-QUINTERO, A.; GARCÍA-PERDOMO, H. Factors related to physical activity in early childhood: a systematic review. **Journal of Physical Activity & Health**, Champaign, IL, v. 16, n. 10, p. 925-936, Oct. 2019.

HUANG, Y.; LIU, X. Improvement of balance control ability and flexibility in the elderly Tai Chi Chuan (TCC) practitioners: a systematic review and meta-analysis. **Archives of Gerontology and Geriatrics**, Amsterdam, v. 60, n. 2, p. 233-238, 2015.

IKEDA, E. et al. Associations of children's active school travel with perceptions of the physical environment and characteristics of the social environment: A systematic review. **Health & place**, [s. l.], v. 54, p. 118-131, 2018.

JAARSMA, E. A. et al. Barriers to and facilitators of sports participation for people with physical disabilities: a systematic review. **Scandinavian Journal Medicine Science Sports**, Copenhagen, v. 24, n. 6, p. 871-881, Dec. 2014.

JONES, R. A. et al. Interventions promoting active transport to school in children: A systematic review and meta-analysis. **Preventive Medicine**, [s. l.], v. 123, p. 232-241, 2019.

JONES, R. A.; OKELY, A. D. Physical Activity Recommendations for Early Childhood. In: REILLY, J. J. (ed.). **Encyclopedia on Early Childhood Development**. 2020. p. 10-17. Disponível em: <http://www.child-encyclopedia.com/physical-activity/according-experts/physical-activity-recommendations-early-childhood>. Acesso em: 5 ago. 2020.

JONES, R. A.; OKELY, A. D. Sedentary Behaviour Recommendations for Early Childhood. In: REILLY, J. J. (ed.). **Encyclopedia on Early Childhood Development**. 2020. p. 23-30. Disponível em: <http://www.child-encyclopedia.com/physicalactivity/according-experts/sedentary-behaviour-recommendations-early-childhood>. Acesso em: 5 ago. 2020.

JUNG, L. G.; KALINOSKI, A. X.; MARQUES, A. C. Barreiras e facilitadores para a atividade física em pessoas com déficit intelectual. **Revista Brasileira de Atividade Física e Saúde**, Londrina, v. 22, p. 362-372, 2017.

LAI, C. C. et al. Effects of resistance training, endurance training and whole-body vibration on lean body mass, muscle strength and physical performance in older people: a systematic review and network meta-analysis. **Age and Ageing**, London, v. 47, n. 3, p. 367-373, May 2018.

LIM, S. et al. What are the most effective behavioural strategies in changing postpartum women's physical activity and healthy eating behaviours? A systematic review and meta-analysis **Journal of Clinical Medicine**, Basel, v. 9, n. 1, p. 237, Jan. 2020.

LONSDALE, C. et al. A systematic review and meta-analysis of interventions designed to increase moderate-to-vigorous physical activity in school physical education lessons. **Preventive Medicine**, [s. l.], v. 56, p. 152-161, 2013.

MALTA, D. P. et al. Prevalência autorreferida de deficiência no Brasil, segundo a pesquisa Nacional de Saúde, 2013. **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 21, n. 10, p. 3253-3264, out. 2016.

MARMELEIRA, J. F. F. et al. Barreiras para a prática de atividade física em pessoas com deficiência visual. **Revista Brasileira de Ciências do Esporte**, São Paulo, v. 40, p. 197-204, 2018.

MARQUES, E. A.; MOTA, J.; CARVALHO, J. Exercise effects on bone mineral density in older adults: a metaanalysis of randomized controlled trials. **Age**, Dordrecht, Netherlands, v. 34, n. 6, p. 1493-1515, Dec. 2012.

MCGARTY, A. M. et al. A systematic review and meta-analysis of interventions to increase physical activity in children and adolescents with intellectual disabilities. **Journal of Intellectual Disability Research**, Oxford, v. 62, n. 4, p. 312-329, 2018.

MCGARTY, A. M.; MELVILLE, G. A. Parental perceptions of facilitators and barriers to physical activity for children with intellectual disabilities: A mixed methods systematic review. **Research in Developmental Disabilities**, New York, v. 73, n. 2, p. 40-57, Feb. 2018.

MEAH, V. L.; DAVIES, G. A.; DAVENPORT, M. H. Why can't I exercise during pregnancy? Time to revisit medical 'absolute' and 'relative' contraindications: systematic review of evidence of harm and a call to action. **British Journal of Sports Medicine**, p. 1-12, 2020.

MEARS, R.; JAGO, R. Effectiveness of after-school interventions at increasing moderate-to-vigorous physical activity levels in 5-to 18-year olds: a systematic review and metaanalysis. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 50, p. 1315-1324, 2016.

MESSING, S. et al. How can physical activity be promoted among children and adolescents? A systematic review of reviews across settings. **Frontiers in Public Health**, Lausanne, v. 7, p. 55, Mar. 2019.

MORTON, K. L. et al. The school environment and adolescent physical activity and sedentary behaviour: a mixed-studies systematic review. **Obesity Reviews**, Oxford, v. 17, p. 142-158, 2016.

MOTTOLA, M. F. et al. 2019 Canadian guideline for physical activity throughout pregnancy. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 52, n. 21, p. 1339-1346, 2018.

NORDBØ, E. C. A. et al. Promoting activity participation and well-being among children and adolescents: a systematic review of neighborhood built-environment determinants. **JBI Evidence Synthesis**, Philadelphia, PA, v. 18, n. 3, p. 370-458, Mar. 2020.

O'BRIEN, K. T. et al. Physical activity and sedentary time among preschoolers in centrebased childcare: a systematic review. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 15, p. 117, Nov. 2018.

OKELY, A. D. et al. A collaborative approach to adopting/adapting guidelines – The Australian 24-Hour Movement Guidelines for the early years (Birth to 5 years): na integration of physical activity, sedentary behavior, and sleep. **BMC Public Health**, [s. l.], v. 17, p. 167-190, 2017.

OLIVEIRA, A. J. et al. Social support and leisure-time physical activity: longitudinal evidence from the Brazilian Pró-Saúde cohort study. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 8, p. 77, 2011.

OLIVEIRA, A. R. C. de; SARTORI, S. K.; LAURINDO, E. (org.). **Recomendações para a Educação Física escolar**. [S. l.]: Sistema CONFEF/CREFs, 2014.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT. **Making Physical Education Dynamic and Inclusive for 2030: International Curriculum Analysis**. [S. l.]: OECD, 2019. Disponível em: https://www.oecd.org/education/2030-project/contact/OECD_FUTURE_OF_EDUCATION_2030_MAKING_PHYSICAL_DYNAMIC_AND_INCLUSIVE_FOR_2030.pdf. Acesso em: 5 jul. 2020.

PARRISH, A. M. et al. Comparing and assessing physical activity guidelines for children and adolescents: a systematic literature review and analysis. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 17, n. 1, p. 16, 2020.

PATE, R. R. et al. Physical activity and health in children under 6 years of age: a systematic review. **Medicine and Science in Sports and Exercise**, Madison, Wis., v. 51, n. 6, p. 1282-1291, June 2019.

PHELAN, S. et al. One-year postpartum anthropometric outcomes in mothers and children in the LIFE-Moms lifestyle intervention clinical trials. **International Journal of Obesity**, London, v. 44, n. 1, p. 57-68, Jan. 2020.

PHYSICAL Activity and Exercise During Pregnancy and the Postpartum Period: ACOG Committee Opinion, Number 804. **Obstetrics and Gynecology**, New York, v. 135, n. 4, p. e178-e188, Apr. 2020.

PIERCY, K. L. et al. The physical activity guidelines for Americans. **JAMA**, Chicago, v. 320, p. 2020-2028, 2018.

PIVARNIK, J. M.; SZYMANSKI, L. M.; CONWAY, M. R. The elite athlete and strenuous exercise in pregnancy. **Clinical Obstetrics and Gynecology**, Hagerstown, MD, v. 59, n. 3, p. 613-619, Sept. 2016.

POITRAS, V. J. et al. Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. **Applied physiology, nutrition, and metabolism**, Ottawa, v. 41, n. 6. p. S197-S239, June 2016. Suppl. 3.

POLLARD, T. M.; WAGNILD, J. M. Gender differences in walking (for leisure, transport and in total) across adult life: a systematic review. **BMC Public Health**, [s. l.], v. 17, p. 341, Apr. 2017.

PREDOVAN, D. et al. Effects of dancing on cognition in healthy older adults: a systematic review. **Journal of Cognitive Enhancement**, [s. l.], v. 3, n. 2, p. 161-167, 2019.

PROCHNOW, T. et al. Social network analysis in child and adolescent physical activity research: a systematic literature review. **Journal of Physical Activity & Health**, Champaign, IL, v. 17, p. 250-260, 2020.

PROGRAMA DAS NAÇÕES UNIDAS PARA O DESENVOLVIMENTO. Relatório de Desenvolvimento Humano Nacional – Movimento é Vida: atividades físicas e esportivas para todas as pessoas: 2017. Brasília, DF: PNUD, 2017.

PTAK, M. et al. The effect of pelvic floor muscles exercise on quality of life in women with stress urinary incontinence and its relationship with vaginal deliveries: a randomized trial. **BioMed Research International**, [s. l.], v. 2019, p. 1-7, Jan. 2019.

PUBLIC HEALTH AGENCY OF CANADA. Handbook For Canada's Physical Activity Guide to Healthy Active Living. Canada: Public Health Agency of Canada, 1998. Disponível em: <http://physicalactivityplan.org/resources/CPAG.pdf>. Acesso em: 9 out. 2020.

RAAFS, B. M. et al. Physical exercise training improves quality of life in healthy older adults: a meta-analysis. **Journal of Aging and Physical Activity**, Champaign, IL, v. 28, n. 1, p. 81-93, Jan. 2020.

RECH, C. et al. Barreiras percebidas para a prática de atividade física no lazer da população brasileira. **Revista Brasileira de Medicina do Esporte**, São Paulo, v. 24, n. 4, p. 303-309, 2018.

REILLY, J. J. et al. GRADE-ADOLOPMENT Process to develop 24-hour movement behavior recommendations and physical activity guidelines for the under 5s in the United Kingdom, 2019. **Journal of Physical Activity & Health**, Champaign, IL, v. 17, p. 101-108, 2020.

RIBEIRO, E. H. C. et al. Latin American interventions in children and adolescents' sedentary behavior: a systematic review. **Revista de Saúde Pública**, São Paulo, v. 54, p. 59, 2020.

RISSEL, C. et al. Physical activity associated with public transport use - a review and modelling of potential benefits. **International Journal of Environmental Research and Public Health**, Basel, v. 9, n. 7, p. 2454-2478, 2012.

RODRIGUEZ-AYLLON, M. et al. Role of physical activity and sedentary behaviour in the mental health of preschoolers, children and adolescents, a systematic review and meta-analysis. **Sports Medicine**, Auckland, N.Z., v. 49, p. 1383-1410, 2019.

- RODRÍGUEZ-BLANQUE, R. et al. Physical activity during pregnancy and its influence on delivery time: a randomized clinical trial. **PeerJ**, Corte Madera, CA, v. 7, p. e6370, 2019.
- SAEIDIFARD, F. et al. The association of resistance training with mortality: A systematic review and meta-analysis. **European Journal of Preventive Cardiology**, London, v. 26, n. 15, p. 1647-1665, Oct. 2019.
- SÁEZ DE ASTEASU, M. L. et al. Role of physical exercise on cognitive function in healthy older adults: A systematic review of randomized clinical trials. **Ageing Research Reviews**, Oxford, v. 37, p. 117-134, Aug. 2017.
- SCHIEFFER, T. M.; THOMAS, K. T. Fifteen years of promise in school-based physical activity interventions: A meta-Analysis. **Kinesiology Review**, [s. l.], v. 1, p. 155-169, 2012.
- SCHMUTZ, E. A. et al. Physical activity and sedentary behavior in preschoolers: a longitudinal assessment of trajectories and determinants. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 15, n. 1, p. 35, Apr. 2018.
- SCHOEPPE, S. et al. Efficacy of interventions that use apps to improve diet, physical activity and sedentary behaviour: a systematic review. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 13, p. 127-153, Dec. 2016.
- SERON, B. S. et al. Prática de atividade física habitual entre adolescentes com deficiência visual. **Revista Brasileira de Educação Física e Esporte**, São Paulo, v. 26, n. 2, p. 231-239, abr./jun. 2012.
- SERON, B. S.; ARRUDA, G. A.; GREGUOL, M. Facilitadores e barreiras percebidas para a prática de atividade física por pessoas com deficiência motora. **Revista Brasileira de Ciências do Esporte**, São Paulo, v. 37, p. 214-221, 2015.
- SHAPE AMERICA. **Getting to Know Your Child's PE Program: A Parent's Guide**. 2019. Disponível em: https://www.shapeamerica.org/uploads/pdfs/2017/downloads/eguides/Parent_Checklist.pdf. Acesso em: 5 jul. 2020.
- SHAPE AMERICA. **The essential components of physical education**. Author Reston, VA,: Shape America, 2015.
- SHIELDS, N.; SYNNOT, J.; BARR, M. Perceived barriers and facilitators to physical activity for children with disability: a systematic review. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 46, p. 989-997, 2012.
- SHIRAZIPOUR, C. H. et al. Program conditions that foster quality physical activity participation experiences for people with a physical disability: a systematic review. **Disability and Rehabilitation**, London, v. 42, n. 2, p. 147-155, Jan. 2020.

SILVA, D. A. S. et al. Results from Brazil's 2018 report card on physical activity for children and youth. **Journal of Physical Activity & Health**, Champaign, IL, v. 15, p. S323-S325, 2018. Suppl. 2.

SILVA, F. C. et al. Effects of physical exercise programs on cognitive function in Parkinson's disease patients: A systematic review of randomized controlled trials of the last 10 years. **PLoS One**, [s. l.], v. 13, n. 2, p. e0193113, 2018.

SILVA, S. G. da et al. A randomized controlled trial of exercise during pregnancy on maternal and neonatal outcomes: results from the PAMELA study. **The International Journal of Behavioral Nutrition and Physical Activity**, London, v. 14, n. 1, p. 175, Dec. 2017.

SILVA, S. G. da et al. Leisure-time physical activity in pregnancy and maternal-child health: a systematic review and meta-analysis of randomized controlled trials and cohort studies. **Sports Medicine**, Auckland, N.Z., v. 47, n. 2, p. 295-317, Feb. 2017.

SINGH, A. S. et al. Effects of physical activity interventions on cognitive and academic performance in children and adolescents: a novel combination of a systematic review and recommendations from an expert panel. **British Journal of Sports Medicine**, Loughborough, Inglaterra, v. 53, p. 640-647, 2019.

SMITH, J. et al. Behavioral correlates of muscular fitness in children and adolescents: a systematic review. **Sports Medicine**, Auckland, N.Z., v. 49, p. 887-904, 2019.

SOCIEDADE BRASILEIRA DE PEDIATRIA. **Promoção da Atividade Física na Infância e Adolescência**. Brasília: SBP, 2017. (Manual de Orientação Grupo de Trabalho em Atividade Física, n. 1).

SOCOLOSCKI, T. S. et al. **Barreiras percebidas à prática de atividade física em idosos brasileiros**: revisão sistemática. set. 2020. No prelo.

STANLEY, R. M.; RIDLEY, K.; DOLLMAN, J. Correlates of children's time-specific physical activity: A review of the literature. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 9, n. 55, p. 1-13, Apr. 2012.

STAPPERS, N. E. H. et al. The effect of infrastructural changes in the built environment on physical activity, active transportation and sedentary behavior- A systematic review. **Health & Place**, [s. l.], v. 53, p. 135-149, 2018.

STEIB, S. et al. Dose-response relationship of resistance training in older adults: a meta-analysis. **Medicine & Science in Sports & Exercise**, Madison, Wis., v. 42, n. 5, p. 902-914, May 2010.

STOPPA, E. A.; ISAYAMA, H. F. **Lazer no Brasil**: representações e concretizações das vivências cotidianas. Campinas, SP: Autores Associados, 2017. (Coleção Educação Física e Esportes).

SUGIMOTO, D. et al. Effects of neuromuscular training on children and young adults with down syndrome: systematic review and meta-analysis. **Research in developmental disabilities**, New York, v. 55, p. 197-206, 2016.

TAYLOR, L. M. et al. Active video games for improving physical performance measures in older people: a meta-analysis. **Journal of Geriatric Physical Therapy**, La Crosse, WI, v. 41, n. 2, p. 108-123, Apr. 2018.

THE COMMONWEALTH. **Model indicators on sport, physical education and physical activity and the Sustainable Development Goals**. London: Commonwealth Secretariat, 2019. Disponível em: <https://thecommonwealth.org/sites/default/files/inline/Sport%20and%20SDG%20Indicators%20v3.1.pdf>. Acesso em: 5 jul. 2020.

TOMPSETT, C. et al. Pedagogical approaches to and effects of fundamental movement skill interventions on health outcomes: A systematic review. **Sports Medicine**, Auckland, N.Z., v. 47, p. 1795-1819, 2017.

TREMBLAY, M. S. et al. Canadian 24-Hour Movement Guidelines for Children and Youth: Active video games for improving physical performance measures in older people: a meta-analysis. **Applied Physiology, Nutrition, and Metabolism**, Ottawa, v. 41, n. 6, p. S311-S327, June 2016. Suppl. 3.

UNESCO. **Diretrizes em educação física de qualidade (EFQ) para gestores de políticas**. Brasília, DF: Unesco, 2015. Disponível em: <https://unesdoc.unesco.org/ark:/48223/pf0000231963>. Acesso em: 5 jul. 2020.

UNESCO. **International Charter of Physical Education, Physical Activity and Sport**. 2015. Disponível em: <https://unesdoc.unesco.org/ark:/48223/pf0000235409>. Acesso em: 5 jul. 2020.

UNITED STATES. Department of Health and Human Services. **Physical Activity Guidelines for Americans**. 2nd ed. Washington, DC: U.S. Department of Health and Human Services, 2018.

VAN DE KOP, J. H. et al. School-based physical activity interventions in prevocational adolescents: A systematic review and meta-analyses. **Journal of Adolescent Health**, New York, v. 65, p. 185-194, Aug. 2019.

VANDERLINDEN, J.; BOEN, F.; VAN UFFELEN, J. G. Z. Effects of physical activity programs on sleep outcomes in older adults: a systematic review. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 17, n. 1, p. 11-25, Feb. 2020.

WANG, J. et al. Impact of exercise on maternal gestational weight gain: An updated meta-analysis of randomized controlled trials. **Medicine**, Hagerstown, Md, v. 98, n. 27, p. e16199, July 2019.

WEGGEMANS, R. M. et al. The 2017 Dutch Physical Activity Guidelines. **International Journal of Behavioral Nutrition and Physical Activity**, London, v. 15, n. 1, p. 58-70, June 2018.

WESTROP, S. C. et al. Gender differences in physical activity and sedentary behaviour in adults with intellectual disabilities: A systematic review and meta-analysis. **Journal of Applied Research in Intellectual Disabilities**: JARID, Clevedon, v. 32, n. 6, p. 1359-1374, Nov. 2019.

WORLD HEALTH ORGANIZATION. **Draft guidelines on physical activity and sedentary behaviour for children and adolescents, adults and older adults**. Geneva: WHO, 2020.

WORLD HEALTH ORGANIZATION. **Global action plan on physical activity 2018–2030: more active people for a healthier world**. Geneva: WHO, 2018. Disponível em: <https://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf?ua=1>. Acesso em: 23 jun. 2020.

WORLD HEALTH ORGANIZATION. **Global recommendations on physical activity for health**. Geneve: WHO, 2010.

WORLD HEALTH ORGANIZATION. **Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age**. Geneva: WHO, 2019.

YARMOHAMMADI, S. et al. A systematic review of barriers and motivators to physical activity in elderly adults in Iran and worldwide. **Epidemiology and Health**, v. 41, p. e2019049, 2019.

ZENG, N. et al. Effects of physical activity on motor skills and cognitive development in early childhood: a systematic review. **BioMed Research International**, [s. l.], v. 2017, p. 1-13, 2017.

ZHAO, M. et al. Recommended physical activity and all cause and cause specific mortality in US adults: prospective cohort study. **BMJ**, London, v. 370, p. m2031, 2020.

**DISQUE
SAÚDE 136**

Biblioteca Virtual em Saúde do Ministério da Saúde
bvsms.saude.gov.br



MINISTÉRIO DA
SAÚDE

Governo
Federal