1° TEMA: “La bicicletta fa bene”

Slide 1: Perché la bicicletta è un alleato per il cuore

Bibliografia

1. Grøntved A, Koivula RW, Johansson I, et al. Bicycling to Work and Primordial Prevention of Cardiovascular Risk: A Cohort Study Among Swedish Men and Women. J Am Heart Assoc. 2016;5(11):e004413. Published 2016 Oct 31. doi:10.1161/JAHA.116.004413

2. Friel C, Walsh D, Whyte B, et al. Health benefits of pedestrian and cyclist commuting: evidence from the Scottish Longitudinal Study. BMJ Public Health. 2024;2(1):e001295. Published 2024 May 15. doi:10.1136/bmjph-2024-001295

3. Nystoriak MA, Bhatnagar A. Cardiovascular Effects and Benefits of Exercise. Front Cardiovasc Med. 2018;5:135. Published 2018 Sep 28. doi:10.3389/fcvm.2018.00135

Slide 2: Cosa fa bene al cuore?

Bibliografia

1. Nystoriak MA, Bhatnagar A. Cardiovascular Effects and Benefits of Exercise. Front Cardiovasc Med. 2018;5:135. Published 2018 Sep 28. doi:10.3389/fcvm.2018.00135

2. Myers J. Cardiology patient pages. Exercise and cardiovascular health. Circulation. 2003;107(1):e2-e5. doi:10.1161/01.cir.0000048890.59383.8d

Slide 3: Cosa <u>non</u> fa bene al cuore?

Bibliografia:

1. De Bosscher R, Dausin C, Claus P, et al. Lifelong endurance exercise and its relation with coronary atherosclerosis. Eur Heart J. 2023;44(26):2388-2399. doi:10.1093/eurheartj/ehad152
2. Celeski M, Di Gioia G, Nusca A, et al. The Spectrum of Coronary Artery Disease in Elite Endurance Athletes-A Long-Standing Debate: State-of-the-Art Review. J Clin Med. 2024;13(17):5144. Published 2024 Aug 30. doi:10.3390/jcm13175144.
3. Aengevaeren VL, Mosterd A, Bakker EA, et al. Exercise Volume Versus Intensity and the Progression of Coronary Atherosclerosis in Middle-Aged and Older Athletes: Findings From the MARC-2 Study. Circulation. 2023;147(13):993-1003. doi:10.1161/CIRCULATIONAHA.122.061173
4. Claessen G, Eijsvogels TMH, Albert CM, et al. Coronary atherosclerosis in athletes: emerging concepts and preventive strategies. Eur Heart J. 2025;46(10):890-903. doi:10.1093/eurheartj/ehae927
5. Khan M, Ichikawa K, Krishnan S, Budoff MJ. Coronary artery disease in athletes—insights from cardiac CT. J Clin Cardiol. 2025;6(1):1-8. doi:10.33696/cardiology.6.064
6. Franklin BA, Thompson PD, Al-Zaiti SS, et al. Exercise-Related Acute Cardiovascular Events and Potential Deleterious Adaptations Following Long-Term Exercise Training: Placing the Risks Into Perspective-An Update: A Scientific Statement From the American Heart Association. Circulation. 2020;141(13):e705-e736. doi:10.1161/CIR.0000000000000749

Slide 3: Perché la bicicletta?

Bibliografia

1. Pedersen BK, Saltin B. Exercise as medicine - evidence for prescribing exercise as therapy in 26 different chronic diseases. Scand J Med Sci Sports. 2015;25 Suppl 3:1-72. doi:10.1111/sms.12581
2. Bullard T, Ji M, An R, Trinh L, Mackenzie M, Mullen SP. A systematic review and meta-analysis of adherence to physical activity interventions among three chronic conditions: cancer, cardiovascular disease, and diabetes. BMC Public Health. 2019;19(1):636. Published 2019 May 24. doi:10.1186/s12889-019-6877-z
3. Green S, Sakuls P, Levitt S. Cycling for health: Improving health and mitigating the climate crisis. Can Fam Physician. 2021;67(10):739-742. doi:10.46747/cfp.6710739
4. Brand C, Dons E, Anaya-Boig E, et al. The climate change mitigation effects of daily active travel in cities. Transp Res Part D Transp Environ. 2021;93:102764. doi:10.1016/j.trd.2021.102764
5. Koolhaas CM, Dhana K, Schoufour JD, et al. Physical activity and cause-specific mortality: the Rotterdam Study. Int J Epidemiol. 2018;47(5):1705-1713. doi:10.1093/ije/dyy058

2° TEMA

Slide 1: La Bici Muscolare – Potenziare Gambe e Cuore

Bibliografia

1. ACSM : linee guida per la valutazione funzionale e la prescrizione dell'esercizio fisico. 2. ed. italiana (sulla 10. USA). Ferriera di Torgiano: Calzetti Mariucci, 2021
2. Nystoriak MA, Bhatnagar A. Cardiovascular Effects and Benefits of Exercise. Front Cardiovasc Med. 2018;5:135. Published 2018 Sep 28. doi:10.3389/fcvm.2018.00135

Slide 2: Come uso la bici muscolare per farmi del bene.

Bibliografia

1. Oja P, Titze S, Bauman A, et al. Health benefits of cycling: a systematic review. Scand J Med Sci Sports. 2011;21(4):496-509. doi:10.1111/j.1600-0838.2011.01299
2. Ekelund U, Steene-Johannessen J, Brown WJ, et al. Does physical activity attenuate, or even eliminate, the detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women. Lancet. 2016;388(10051):1302-1310. doi:10.1016/S0140-6736(16)30370-1
3. Bull FC, Al-Ansari SS, Biddle S, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. Br J Sports Med. 2020;54(24):1451-1462. doi:10.1136/bjsports-2020-102955

Slide 3: Colesterolo.

Bibliografia:

1. Kodama S, Tanaka S, Saito K, et al. Effect of aerobic exercise training on serum levels of high-density lipoprotein cholesterol: a meta-analysis. Arch Intern Med. 2007;167(10):999-1008. doi:10.1001/archinte.167.10.999

2. Thompson PD. Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease. Arterioscler Thromb Vasc Biol. 2003;23(8):1319-1321. doi:10.1161/01.ATV.0000087143.33998.F2

Slide 4: Come mi comporto in salita, lo sforzo, il fuori soglia.

Bibliografia

1. La Gerche A, Burns AT, Mooney DJ, et al. Exercise-induced right ventricular dysfunction and structural remodelling in endurance athletes. Eur Heart J. 2012;33(8):998-1006. doi:10.1093/eurheartj/ehr397

2. Eijsvogels TM, Molossi S, Lee DC, Emery MS, Thompson PD. Exercise at the Extremes: The Amount of Exercise to Reduce Cardiovascular Events. J Am Coll Cardiol. 2016;67(3):316-329. doi:10.1016/j.jacc.2015.11.034

3° TEMA: La Bicicletta a Pedalata Assistita

Slide 1: Che vantaggi in termini di salute restituisce la bici a pedalata assistita.

Bibliografiia:

1. Bourne JE, Sauchelli S, Perry R, et al. Health benefits of electrically-assisted cycling: a systematic review. Int J Behav Nutr Phys Act. 2018;15(1):116. Published 2018 Nov 21. doi:10.1186/s12966-018-0751-8
2. Langford BC, Cherry CR, Bassett DR, Fitzhugh EC, Dhakal N. Comparing physical activity of pedal-assist electric bikes with walking and conventional bicycles. *Journal of Transport & Health*. 2017;6:463-473. doi:10.1016/j.jth.2017.06.002
3. Sahlqvist S, Goodman A, Cooper AR, Ogilvie D, on behalf of the iConnect consortium. Change in active travel and changes in recreational and total physical activity in adults: longitudinal findings from the iConnect study. *Int J Behav Nutr Phys Act*. 2013;10(1):28. doi:10.1186/1479-5868-10-28

Slide 2: Come cambia la pedalata e lo sforzo con l'EPAC?

Bibliografia

1. Rauter S, Supej M, Vodičar J. Examining the Efficiency of Electric-Assisted Mountain Biking across Different Types of Terrain. Applied Sciences. 2023; 13(21):11677.https://doi.org/10.3390/app132111677
2. McVicar J, Keske MA, Daryabeygi-Khotbehsara R, Betik AC, Parker L, Maddison R. Systematic review and meta-analysis evaluating the effects electric bikes have on physiological parameters. Scand J Med Sci Sports. 2022;32(7):1076-1088. doi:10.1111/sms.14155

3. Louis J, Brisswalter J, Morio C, Barla C, Temprado JJ. The electrically assisted bicycle: an alternative way to promote physical activity. Am J Phys Med Rehabil. 2012;91(11):931-940. doi:10.1097/PHM.0b013e318269d9bb

4. Yang SC, Lee YJ. Integrated Physiological, Biomechanical, and Subjective Responses for the Selection of Assistive Level in Pedelec Cycling. Front Physiol. 2021;12:740728. Published 2021 Dec 8. doi:10.3389/fphys.2021.740728

Slide 3: Colesterolo, sistema cardiovascolare, cuore, va bene lo stesso se uso l'epac?

Bibliografia

1. McVicar J, Keske MA, Daryabeygi-Khotbehsara R, Betik AC, Parker L, Maddison R. Systematic review and meta-analysis evaluating the effects electric bikes have on physiological parameters. Scand J Med Sci Sports. 2022;32(7):1076-1088. doi:10.1111/sms.14155

2. Alessio HM, Ballard KD, Reidy PT, et al. Short term e-bicycle riding results in favorable cardiometabolic shifts in moderately active adults. *Eur J Appl Physiol*. 2024;124(7):1969-1977.doi:10.1007/s00421-024-05418-1

3. Höchsmann C, Meister S, Gehrig D, et al. Effect of E-Bike Versus Bike Commuting on Cardiorespiratory Fitness in Overweight Adults: A 4-Week Randomized Pilot Study. *Clinical Journal of Sport Medicine*. 2018;28(3):255-265. doi:10.1097/JSM.0000000000000438

4. Hoj TH, Bramwell JJ, Lister C, et al. Increasing Active Transportation Through E-Bike Use: Pilot Study Comparing the Health Benefits, Attitudes, and Beliefs Surrounding E-Bikes and Conventional Bikes. *JMIR Public Health Surveill*. 2018;4(4):e10461. Doi:10.2196/10461

5. Anderson CC, Clarkson DE, Howie VA, Withyman CJ, Vandelanotte C. Health and well-being benefits of e-bike commuting for inactive, overweight people living in regional Australia. *Health Prom J of Aust*.2022;33(S1):349-357.doi:10.1002/hpja.590

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