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Health and active travel

This page lists research on the benefits of active travel and physical activity for reducing the risk of obesity and many chronic diseases and improving mental health and well-being. You can read our [overview of the evidence in this area \(/sites/default/files/images/files/Summary%20of%20active%20travel%20projects%28%29.pdf\)](#).

Walking to public transit: steps to help meet physical activity recommendations

Besser, L., Dannenberg, A.

American Journal of Preventive Medicine, November 2005, Volume 29, Issue 4, pages 273-280 ([http://www.ajpmonline.org/article/S0749-3797\(05\)00255-2/abstract](http://www.ajpmonline.org/article/S0749-3797(05)00255-2/abstract))

This paper explores the effect of walking to public transport links on physical activity levels in the USA.

Keywords: Walking, Physical Activity, Public Transport/Transit

Are parental health habits transmitted to their children? An eight year longitudinal study of physical activity in adolescents and their parents

Anderssen, N., Wold, B., Torshelm, T.

Journal of Adolescence, August 2006, Volume 29, Issue 4, pages 513-524 ([http://www.sciencedirect.com/science?ob=ArticleURL&udi=B6WH0-4H68T3R-2&user=10&coverDate=08%2F2006&rdoc=3&fmt=high&orig=browse&origin=browse&_zone=rsit_list_item&srch=doc-info\(%23toc%236836%232006%23999709995%23628500%23FLA%23display%23Volume\)&_cdi=6836&sort=d&docanchor=&ct=13&acct=C000050221&version=1&urlVersion=0&userid=10&md5=9182bc7b3c6792d1b2401be5c0363185&searchtype=aj](http://www.sciencedirect.com/science?ob=ArticleURL&udi=B6WH0-4H68T3R-2&user=10&coverDate=08%2F2006&rdoc=3&fmt=high&orig=browse&origin=browse&_zone=rsit_list_item&srch=doc-info(%23toc%236836%232006%23999709995%23628500%23FLA%23display%23Volume)&_cdi=6836&sort=d&docanchor=&ct=13&acct=C000050221&version=1&urlVersion=0&userid=10&md5=9182bc7b3c6792d1b2401be5c0363185&searchtype=aj))

There is no evidence from this longitudinal study to suggest a relationship between adolescents' leisure-time physical activity and their parents' leisure-time physical activity over an eight-year period.

Keywords: Longitudinal, Two-Generational, Leisure, Physical Activity, Adolescence

The challenges of evaluating environmental interventions to increase population levels of physical activity: the case of the UK National Cycle Network

Lawlor, D., Ness, A., Cope, A., Davis, A., Insall, P., Riddoch, C.

Journal of Epidemiology and Community Health, 2003, Volume 57, pages 96-101 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1732376/pdf/v057p0096.pdf>)

Full article available

This paper outlines the issues with evaluating environmental interventions to show improved health, using the National Cycle Network as a case study.

Keywords: National Cycle Network, Environmental Intervention, Physical Activity

Characteristics of physical activity levels among trail users in a U.S. national sample

Librett, J., Yore, M., Schmid, T.

American Journal of Preventive Medicine, November 2006, Volume 31, Issue 5, pages 399-405 ([http://www.ajpmonline.org/article/S0749-3797\(06\)00267-4/abstract](http://www.ajpmonline.org/article/S0749-3797(06)00267-4/abstract))

This research seeks to gain greater understanding of the users of community walking and cycling trails, finding that those who reported using the trails most often were more likely to meet their daily physical activity requirements.

Keywords: Community, Physical Activity, Trails, Cycling, Walking

Perceived barriers to walking for physical activity

Dunton, G., Schneider, M.

Preventing Chronic Disease, October 2006, Volume 3, Number 4 (http://www.cdc.gov/pcd/issues/2006/oct/05_0185.htm)

Full report available

A group of undergraduate students were surveyed to ascertain some of the barriers to walking for physical activity, finding that any one of three factors; appearance, footwear and situation, underlay perceived barriers to walking.

Promoting walking and cycling as an alternative to using cars: systematic review

Ogilvie, D., Egan, M., Hamilton, V., Petticrew, M.

British Medical Journal, September 2004, Volume 329, Number 7469 (<http://www.bmj.com/cgi/content/full/329/7469/763>)

Full report available

The purpose of this paper is to assess what interventions were effective in promoting a modal shift from car usage to walking and cycling, and the health benefits of such interventions.

Keywords: Evaluation, Walking, Cycling, Health Benefits, Modal Shift

Exercise Evaluation Randomised Trial (EXERT): a randomised trial comparing GP referral for leisure centre-based exercise, community-based walking and advice only

Isaacs, A., Critchley, J., See Tai, S., Buckingham, K., Westley, D., Harridge, S., Smith, C., Gottlieb, J.

Health Technology Assessment, 2007, Volume 11, Issue 10, pages 1-184 (<http://www.hta.ac.uk/project/1032.asp>)

Full report available

The aim of this trial was to evaluate and compare the effectiveness and cost-effectiveness of three types of GP referrals for increasing physical activity, finding that all three led to an increase of patients achieving at least 150 minutes per week of physical activity.

Keywords: Physical Activity, GP referral, Randomised Trial, Walking, Exercise, Advice

Integrating physical activity into mental health services for persons with serious mental illness

Richardson, C., Faulkner, G., McDevitt, J., Skirihar, G., Hutchinson, D., Piette, J.

Psychiatric Services, March 2005, Volume 56, Number 3, pages 324-331 (<https://www.lemosandcrane.co.uk/dev/resources>)

/Psychiatric%20Services%20-%20Integrating%20Physical%20Activity%20into%20Mental%20Health%20Services%20for%20Persons%20with%20Serious%20Mental%20Illness.pdf

This article reviews the evidence promoting the positive effect of physical activity on people affected by serious mental illnesses.

Keywords: Physical Activity, Mental Health, Evidence Review

Interventions for promoting physical activity

Foster, C., Hillsdon, M., Thorogood, M.

Cochrane Database of Systematic Reviews, 2005, Issue 1 (<http://www.mrw.interscience.wiley.com/cochrane/clisysrev/articles/CD003180/frame.html>)

This paper assesses the effectiveness of interventions aimed at enabling people to achieve and maintain recommended levels of physical activity, finding that the interventions generally have a moderate effect.

Keywords: Physical Activity, Randomised Trials, Interventions

Comparison of walking recommendations in previously inactive women

Hutquist, C., Albright, C., Thompson, D.

Medicine and Science in Sports and Exercise, April 2005, Volume 37, Issue 4, pages 676-683 (<http://www.acsm-msse.org/pt/rev/msse/abstract.00005768-200504000-00022.htm?sessionid=HDTG1mVpJh3r3qQ7Jp5JUP7yyqJHQJ61ThVWtnV0rmmTVGP6Gf-36880804181195628180911-1>)

This study compares two different walking recommendations aimed at increasing physical activity, finding that women walk more when instructed to take 10,000 steps per day as opposed to being told to walk for 30 minutes per day.

Keywords: Walking, Women, Physical Activity

A community-based approach to promoting walking in rural areas

Brownson, R., Baker, E., Boyd, R., Cailo, N., Duggan, K., Housemann, R., Kreuter, M., Mitchell, T., Motton, F., Pulley, C., Schmid, T., Walton, D.

American Journal of Preventive Medicine, July 2004, Volume 27, Issue 1, pages 28-34 ([http://www.ajpmonline.org/article/S0749-3797\(04\)00059-5/abstract](http://www.ajpmonline.org/article/S0749-3797(04)00059-5/abstract))

This paper investigates the effectiveness of physical activity interventions in six rural communities, finding that there was an increase in the use of walking trails, although this didn't correspond with an increase in community-wide walking rates.

Keywords: Walking, Physical Activity, Community, Trails

Can lay-led walking programmes increase physical activity in middle aged adults? A randomised controlled trial

Lamb, S., Bartlett, H., Ashley, A., Bird, W.

Journal of Epidemiology and Community Health, 2002, Volume 56, pages 246-252 (<http://jech.bmj.com/content/56/4/246.abstract>)

The objective of this study was to compare health walks, a community-based lay-led walking scheme, and advice only on physical activity levels and health status, finding that health walks were more effective than giving advice only.

Keywords: Physical Activity, Health, Randomised Controlled Trial, Walking

Physical activity and health: evidence from a study of deprived communities in England

Ellis, E., Grimms, M., Goyder, E., Blank, L., Peters, J.

Journal of Public Health, 2006, Volume 29, Issue 1, pages 27-34 (https://watermark.silverchair.com/fd/089.pdf?token=AEQCAH208BE490oan9khhW_Ery7Dm3ZL_9CF3qKAc485ysgAAakwvgJlBqkghI9w0BBwaggg5MIICNQBADCCAI4GCSqGSlib3DQEHATAeBglghkqBZQMEAS4wEQQMihSxxG6ycya2_U3AgEQIlg_9A80mtYC9ZMldsB1Fq750cMVBKXizDcYP3DpAcvblRnOp-40D64maDwkmZy7FhpOPHbsjPgO4_1WK9Jp1JzeZFj8W_-eUzo9_1UW47Tee2JXUm1UgrQ6WX_abbacKgK3KUC0D0HjgCk3rcm7jpenwPz3mZe6KkvsZoxVAqm1WEi65nrY1ixo51b7maO249-KQeeEge9r1_8AsQ7pQRQUJuloTHazSE5GwByU2eBRaLcLB3zA5GvveOAcXYXib0zo57nbsds06CaRSs5mW0mphAmpz78aAOe5gK18dJvYB4WIdAsLnlnF7KQ3PEXH7I0izBGRzpTX5tqbFJ10MA6iE6m0BaNauk8_hLBDsv400N7dp9-FJ73eVgEuAccoHV6p0tUKTMuPAmx50Kkpx8-oghzt5xpMegOMtmKI80VJQ-0FivpB5qxBr-M-2eHY-oW_WENwwEWoxPGUOWD2oP64Apud4pXmE6XmyiSGOkRbqSxn8L2C3D1vHE773rAgWdN3Tml0o_LalmVe_-CBnFwveG7PHg4d4gXCRHvV6KClms-qF78dXi5fGGt1yQArYU7c7Y57p1VEPEjrsbj5x736JRXtd5K-LS3f072FAoy9TK1dry9Yzh1WMTNhmCMKy0WMDI4I2Y-yutNUJ)

This paper explores the relationship between physical activity levels and the health status of residents living in deprived communities, finding that there were large regional and demographic variations, and that residents who did little physical activity were more likely to report ill health.

Keywords: Physical Activity, Public Health

Active transportation increases adherence to activity recommendations

Berrigan, D., Troiano, R., McNeel, T., Disogra, C., Ballard-Barbash, R.

American Journal of Preventive Medicine, September 2006, Volume 31, Number 3, pages 210-216 ([http://www.ajpmonline.org/article/S0749-3797\(06\)00196-6/abstract](http://www.ajpmonline.org/article/S0749-3797(06)00196-6/abstract))

This paper addresses the bias of measuring physical activity levels by only including leisure-time physical activity, and finds that demographic disparities are lessened when non-leisure walking and cycling time are taken into account.

Keywords: Physical Activity, Leisure, Non-Leisure, Walking, Cycling, Bias

Transport policy and health inequalities: a health impact assessment of Edinburgh's transport policy

Gorman, D., Douglas, M., Conway, L., Noble, P., Hanlon P.

Public Health, January 2003, Volume 117, Issue 1, pages 15-24 ([http://www.publichealthjrn.com/article/S0033-3506\(02\)00002-1/abstract](http://www.publichealthjrn.com/article/S0033-3506(02)00002-1/abstract))

This paper looks at health impact assessments in relation to examining the relationship between inequalities and health, and how different transport policies can affect different population groupings to varying degrees.

Keywords: Health Impact Assessment, Health, Transport Policy

Do the health benefits of cycling outweigh the risks?

de Hartog, J., Boogaard, H., Nijland, H., Hoek, G.

Environmental Health Perspectives, August 2010, Volume 118, Issue 8, pages 1109-1116 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2920084/>)

Full report available

This paper explores the disbenefits of cycling, such as exposure to air pollution and traffic accidents, and assesses whether the risks are outweighed by the benefits of cycling, finding that the benefits substantially outweighed the risks for the individual who shifts from car use to cycling.

Keywords: Cycling, Air Pollution, Disbenefits, Traffic Accidents, Health Benefits, Physical Activity, Modal Shift, Life Table Analysis

Interventions to promote cycling - a systematic review

Yang, L., Sahlqvist, S., McMin, A., Griffin, S., Ogilvie, D.

British Medical Journal, 2010, Volume 341 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2957539/>)

Full report available

The purpose of this research was to assess what interventions are most effective in encouraging more cycling, and whether the interventions create benefits to overall physical activity levels in the wider community.

Keywords: Cycling, Interventions, Physical Activity, Review

The association between commuter cycling and sickness absence

Hendriksen, I., Simons, M., Galindo Garre, F., Hildebrandt, V.

This paper examines the association between commuter cycling and sickness absence, and the possible dose-response relationship, finding that cyclists, on average, take fewer sick days than non-cyclists.
 Keywords: Active Travel/Transport, Cycling, Physical Activity, Absenteeism, Dose-Response Relationship

Walking and cycling to health: a comparative analysis of city, state, and international data

Pucher, J., Buehler, R., Bassett, D., Dannenberg, A.
American Journal of Public Health, October 2010, Volume 100, Issue 10, pages 1986-1992 (<http://ajph.aphublications.org/cgi/content/abstract/100/10/1986>)

The purpose of this study was to determine the magnitude, direction and significance of the relationship between active travel and physical activity, obesity and diabetes, providing evidence of the population-level health benefits of active travel.
 Keywords: Physical Activity, Active Travel, Health, Obesity, Diabetes

Upper respiratory tract infection is reduced in physically fit and active adults

Nieman, D., Henson, D., Austin, M., Sha, W.
British Journal of Sports Medicine, 2010 (<http://bjsm.bmj.com/content/early/2010/09/30/bjsm.2010.077875.abstract>)

This study investigates the relationship between physical activity and rates of upper respiratory tract infection (URTI), finding that the rates of URTI were significantly reduced in subjects reporting exercising at least five days a week.
 Keywords: Physical Activity, Fitness, Upper Respiratory Tract Infection, Health

The contribution of active play to the physical activity of primary school children

Brockman, R., Jago, R., Fox, K.
Preventive Medicine, August 2010, Volume 51, Issue 2, pages 144-147 ([http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WPG-506W6J3-1&_user=10&_coverDate=08%2F31%2F2010&_rdoc=11&_fmt=high&_orig=browse&_origin=browse&_zone=rsit_list_item&_srch=doc-info\(%23toc%236990%232010%2399948997%232216737%23FLA%23display%23Volume\)&_cdi=6990&_sort=dc_docranchor&_ct=24&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=8dc89e378af2d4e700ac7073af13a9d&searchtype=a](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WPG-506W6J3-1&_user=10&_coverDate=08%2F31%2F2010&_rdoc=11&_fmt=high&_orig=browse&_origin=browse&_zone=rsit_list_item&_srch=doc-info(%23toc%236990%232010%2399948997%232216737%23FLA%23display%23Volume)&_cdi=6990&_sort=dc_docranchor&_ct=24&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=8dc89e378af2d4e700ac7073af13a9d&searchtype=a))

This paper examines the association between active play and physical activity of 10-11-year-old children, finding an association with active play just after school potentially being a critical period.
 Keywords: Active Play, Physical Activity, Children, Leisure, Accelerometer

Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review

Thompson Coon, J., Boddy, K., Stein, K., Whear, R., Barton, J., Depledge, M.
Environmental Science & Technology, 2011, Volume 45, Issue 5, pages 1761-1772 (<http://pubs.acs.org/doi/abs/10.1021/es102947f>)

This paper compares the effects of indoor and outdoor physical activity on physical and mental wellbeing, tentatively finding that outdoor physical activity was associated with greater feelings of revitalisation and positive engagement, although more research is needed.
 Keywords: Physical Activity, Physical Wellbeing, Mental Wellbeing

Physical activity and diet relative to socio-economic status and gender in British young people

Thomas, N., Cooper, S., Baker, J., Davies, B.
Health Education Journal, September 2006, Volume 65, Issue 3, pages 223-235 (<http://hej.sagepub.com/content/65/3/223.abstract>)

This paper examines the physical activity levels and dietary habits of British young people according to socio-economic status, finding that boys were more active than girls, but socio-economic status did not influence time spent in physical activity.
 Keywords: Physical Activity, Diet, Socio-economic Status, Young People

Promoting physical activity participation among children and adolescents

Salmon, J., Booth, M., Phongsavan, P., Murphy, N., Timperio, A.
Epidemiologic Reviews, 2007, Volume 29, Issue 1, pages 144-159 (<http://epirev.oxfordjournals.org/content/29/1/144.abstract>)

This study summarises the evidence of the effectiveness of physical activity interventions, finding that interventions in the school setting were not effective, although more research is needed.
 Keywords: Adolescents, Children, Physical Activity, Exercise, Health Education, Health Promotion, Schools

Health benefits of cycling: a systematic review

Oja, P., Titze, S., Bauman, A., de Geus, B., Krenn, P., Reger-Nash, B., Kohlberger, T.
Scandinavian Journal of Medicine and Science in Sports, April 2011 (<http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0838.2011.01299.x/abstract>)

The purpose of this study was to update the evidence on the health benefits of cycling, finding that, across the board, there is a clear positive relationship between cycling and health.
 Keywords: Physical Activity, Cycling, Health Benefits, Commuting, Disease, Review

Physical activity by stealth? The potential health benefits of a workplace transport plan

Brockman, R., Fox, K.
Public Health, April 2011, Volume 125, Issue 4, pages 210-216 ([http://www.publichealthjnl.com/article/S0033-3506\(11\)00025-4/abstract](http://www.publichealthjnl.com/article/S0033-3506(11)00025-4/abstract))

This paper investigates the effect of implementing a workplace travel plan at the University of Bristol, finding that unanticipated health benefits arose from an increase in cycling and walking.
 Keywords: Physical Activity, Active Commuting, Transport/Travel Plan, Cycling, Walking