

Best practice bicycle safety – improvement fact sheet

# Mental health

## Overview

In the definition of mental health by the World Health Organization (WHO) the positive dimension is emphasised: “mental health is a **state of well-being** in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” [1]. The 2020 edition of Health at a Glance: Europe highlights good mental health as vital for people to be able to lead healthy and productive lives. Living with a mental health problem can have a significant **impact on daily life**, contributing to worse educational outcomes, higher rates of unemployment, as well as poorer physical health. A new challenge for mental health has come with the Covid-19 pandemic which is also having a negative impact on mental wellbeing, especially amongst young people and people with lower socio-economic status [2].

According to the Institute for Health Metrics and Evaluation, more than one in six people across EU-28 countries (17.3%) had a mental health problem, such as depression, anxiety disorders and alcohol and drug use disorders, in 2016. Besides the impact on people’s well-being, the estimated **costs** of mental ill-health are over 600 billion euros or more than 4% of GDP in EU-28 countries [1]. Without effective treatment and support, mental health problems can have a devastating **effect on people’s lives**, and significantly increase the risk of dying from suicide. In 2017, there were on average 11 deaths by suicide per 100,000 population across EU-27 countries [2].

One of the effective approaches towards good mental health is **physical activity** which gives us **structure, purpose, energy, and motivation** [3]. Cycling offers an affordable and safe way of exercising.

## Positive effects of cycling

WHO recommends at least 150–300 minutes of moderate-intensity aerobic **physical activity**; or at least 75–150 minutes of vigorous intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week, for substantial health benefits amongst adults aged 18 and above. Physical activity has many health benefits, including for one's mental health, as it reduces symptoms of anxiety and depression [4]. Besides, it is effective at altering the way one processes and reacts to one's emotions, reduces one's overthinking, and builds emotional resilience to stress. It helps people to behave differently, boosting their self-esteem, and reduces feelings of loneliness by making people more social [3].

- » Physical activity like cycling **reduces stress**:
  - Cycling can **lower** the levels of our body's **stress hormone**, cortisol [5].
  - Research shows that those who **commute by bicycle** regularly have significantly **lower risk of being stressed** than non-bicycle commuters [6].
- » Physical activity like cycling **reduces anxiety**:
  - Cycling causes the body to **release endorphins**, also called happiness hormones. Amongst other things, they trigger a **positive feeling** in the body, which can be accompanied by a positive and energizing outlook on life [7].




- » Physical activity like cycling **wards-off feeling of depression**:
  - Regular cycling can **boost the mood**. It is especially useful for people with mild to moderate depression [5].
- » Physical activity like cycling can **improve sleep and boost self-esteem**:
  - Cycling helps to sleep **better**, which can help to boost one's mood.
  - Cycling can make people feel **more positive** and better about themselves, especially if they improve and achieve their goals, which helps boosting the self-esteem [5].
- » Physical activity like cycling helps to **socialise**:
  - Cycling can be a great activity if someone wants some time alone, but also if the active time is to be shared with others.
  - Social contacts can **reduce the feeling of loneliness** and help to reduce stress and anxiety [5].

Cycling is usually performed **outdoors**, which also contributes to the **mental well-being**. Studies showed that compared with exercising indoors, exercising in natural environments is associated with greater **feelings of revitalisation**, increased **energy** and **positive engagement**, together with decreases in tension, confusion, anger and depression [8].

Benefits

	Cycling <b>reduces stress</b>
	<b>Reduces anxiety</b> and <b>boosts the mood</b>
	<b>Improves sleep</b> and <b>boosts self-esteem</b>
	Contributes to <b>physical</b> and <b>mental health</b>

Challenges

	To provide appropriate <b>bicycle infrastructure</b>
	<b>Costs</b> for planning, building and maintaining safe cycling networks
	Proper and effective <b>promotion</b> of cycling in connection to mental health

## References and links

1. OECD/EU (2018). *Health at a Glance: Europe 2018*. In: [https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2018\\_health\\_glance\\_eur-2018-en](https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2018_health_glance_eur-2018-en)
2. OECD/EU (2020). *Health at a Glance: Europe 2020*. In: [https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2020\\_82129230-en?\\_ga=2.196882922.771583794.1638133190-107785599.1638133190](https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2020_82129230-en?_ga=2.196882922.771583794.1638133190-107785599.1638133190)
3. Perry, J. (2021). *Five mental health benefits of exercise*. *Life Science* (29 September 2021). In: <https://www.livescience.com/five-mental-health-benefits-of-exercise>
4. World Health Organization (2020). *WHO guidelines on physical activity and sedentary behaviour* (25 November 2020). In: <https://www.who.int/publications/i/item/9789240015128>
5. Sustrans (2020). *Why cycling and walking are great for your mental health* (5 November 2020). In: <https://www.sustrans.org.uk/our-blog/get-active/2020/everyday-walking-and-cycling/why-cycling-and-walking-are-great-for-your-mental-health>
6. Avila-Palencia, I., de Nazelle, A., Cole-Hunter, T., Donaire-Gonzalez, D., Jerrett, M., Rodriguez, D. A., Nieuwenhuijsen, M. J. (2017). *The relationship between bicycle commuting and perceived stress: a cross-sectional study*. *BMJ open*, 7(6), e013542. In: <https://bmjopen.bmj.com/content/7/6/e013542>
7. Bruce, D. F. (2020). *Exercise and Depression*. WebMD. In: <https://www.webmd.com/depression/guide/exercise-depression>
8. Thompson Coon, J., Boddy, K., Stein, K., Whear, R., Barton, J., Depledge, M. H. (2011). *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*. *Environmental science & technology*, 45(5), pp. 1761-1772. In: <https://www.sciencedaily.com/releases/2011/02/110204130607.htm>

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