

Physical activity guidelines 2017

No. 2017/08e

Executive summary

Health Council of the Netherlands



Background

Three standards for physical activity are applied in the Netherlands: the Dutch Standard for Healthy Physical Activity, which recommends physical activity of moderate intensity, such as brisk walking, at least five days a week for a minimum of thirty minutes; the Fitnorm, which recommends vigorous physical activity, such as running, at least three days a week for a minimum of twenty minutes; and the Combinorm, for which the Activity Standard and/or the Fitnorm must be met. At the request of the Minister of Health, Welfare and Sport, the Committee for Guidelines on Physical Activity has assessed these guidelines in the light of new scientific developments. The question of whether all aspects of physical activity could be incorporated into one directive was also considered.

Methodology

In order to derive new guidelines for physical activity, the committee undertook a systematic review of research on the effects of physical

activity on the risk of chronic diseases and physical limitations (in older people), and fitness (in children). The findings were summarised in two background documents, in which different levels of evidential strength were assigned. Subsequently, the committee took those effects with a strong level of evidence as a starting point for the derivation of the new guidelines, also taking international guidelines into account.

Findings

The numerous beneficial effects of regular physical activity were reaffirmed once again in these recommendations. Physical activity is healthy for all age groups. This applies both to endurance training and to muscle-strengthening activity.

In adults and older persons, physical activity reduces the risks of cardiovascular disease, diabetes and depressive symptoms.

Furthermore, higher levels of physical activity are associated with a lower risk of breast and colon cancer and premature death. Research shows that the beneficial effects increase in

proportion to the amount of physical activity done. In relative terms, the most health gains are made when changing from being physically inactive to being physically active (moderately vigorous activity levels or higher).

Among older people, physical activity reduces the risk of bone fractures and improves muscle strength and walking speed. Higher levels of physical activity in this group are also associated with a lower risk of physical constraints, cognitive decline and dementia.

In children, physical activity also lowers the risk of depressive symptoms, improves insulin sensitivity and bone quality, and reduces body mass index and fat mass in children who are overweight or obese. Physical activity also improves physical fitness and muscle strength. A sedentary lifestyle, by contrast, appears to be detrimental to health, being associated with a higher risk of cardiovascular disease and premature death. However, this association becomes weaker the more physical activity that people engage in, and is not present in people who engage in a great deal of physical activity



(significantly more than the current standard for physical activity). The scientific evidence for the health effects of a sedentary lifestyle is currently much less strong than that for physical activity.

Physical activity guidelines

The physical activity guideline for adults and older people is as follows:

- *Physical activity is good for you – the more, the better.*
- *Engage in physical activity of moderate intensity for at least 150 minutes every week, spread over several different days. For example, walking and cycling. The longer you are physically active, and the more frequent and/or more vigorous the activity, the more your health will benefit.*
- *Do activities that strengthen your muscles and bones at least twice a week. Older people should combine these with balance exercises.*
- *And: avoid spending long periods sitting down.*

For children from four to eighteen years, the following physical activity guideline applies:

- *Physical activity is good for you – the more, the better.*
- *Engage in physical activity of moderate intensity for at least one hour every day. The longer you are physically active, and the more frequent and/or more vigorous the activity, the more your health will benefit.*
- *Do activities that strengthen your muscles and bones at least three times a week.*
- *And: avoid spending long periods sitting down.*

The Committee emphasises that the association between the amount of activity and health is a continuum. The guideline for physical activity in adults and older people represents a minimum standard to motivate people who are less physically active to become more physically active. People who follow this guideline can achieve further health benefits by engaging in more physical activity. The committee recommends emphasizing this in communication

regarding the physical activity guidelines.

Recommendations for monitoring, research and implementation

In the Netherlands, the new guidelines for physical activity of moderate intensity and bone- and muscle-strengthening activities are met by around 45 percent of children, adults and older people. Moderately intense physical activity includes all physical activity that is moderate or vigorous, whether it is done at home, at school, at work or during leisure activities. The figures are based on questionnaire data, which provide a good impression of trends in physical activity over time. Because questionnaires are less accurate for determining the actual amount of exercise done, the Committee argues for the use of instruments such as accelerometers to measure the amount of physical activity actually done.

The percentages reveal that a large proportion of the population still does not engage in much physical activity. The challenge is to achieve a



lasting change in sedentary behaviour and increase levels of physical activity. We also need to achieve a better understanding of the factors that encourage and discourage people from engaging in sufficient physical activity. One factor that can help is when people incorporate physical activity into their daily lives, such as by walking or cycling to school or work. Physical activity programmes can also help to motivate people. Because only a small number of these have been proven to be effective, the committee recommends that more research is done in relation to such programmes. Programmes that aim to reduce the amount of time people spend sitting down also deserve further research. Finally, a permanent change in physical activity habits could be supported by taking this into account in the design of the physical environment.

The guidelines focus primarily on physical activity behaviours among the general public. But in view of the major importance of this question to public health, the guidelines are not

only a matter for individuals but also for the government. The committee advises the minister to invest in interventions to ensure that people engage in more physical activity on a permanent basis. The success of such interventions can be maximised by working together with other parties, such as local government, employers, schools and health professionals.



Figure 1 Physical Activity Guidelines 2017

Physical activity is good for you – the more, the better

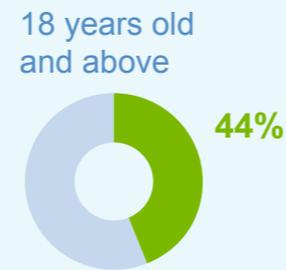
Adults and older persons

 Moderate or vigorous activity at least **150 minutes** every week, spread over several different days

 Activities that strengthen muscles and bones (for older people, including balance exercises): at least **twice** a week

 And: avoid spending long periods sitting down

What percentage of people currently meet the guidelines?



Children

 Moderate or vigorous activity at least **1 hour** per day

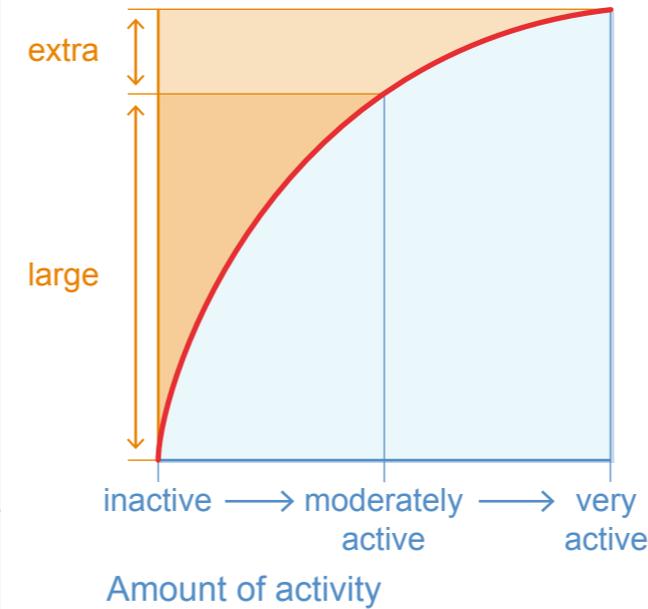
 Activities that strengthen muscles and bones at least **three times** a week

 And: avoid spending long periods sitting down



The greatest health benefits are achieved when you start to become physically active

Health benefits



Types of activities for:

 **Strengthening muscles**
Improving the strength and stamina of the skeletal muscles

 **Strengthening bones**
Load-bearing exercises with own body weight

Intensity of exercise

As the intensity increases, heart rate, respiratory rate and energy consumption also increase further

Sitting down

Watching television, working with a computer



Light

Playing music, washing up



Moderate

Walking, cycling



Vigorous

Running, playing football



The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and the Environment, Social Affairs and Employment, and Economic Affairs. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity. The reports are available to the public.

This document can be downloaded from www.healthcouncil.nl.

Preferred citation:

Health Council of the Netherlands. Physical activity guidelines 2017. The Hague:
Health Council of the Netherlands, 2017; publication no. 2017/08e.

All rights reserved

