

Short, intensive training improves children's health

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Many children don't get enough exercise and as a result often have health problems such as being overweight and having high blood pressure. A research team from Martin Luther University Halle-Wittenberg (MLU)

and the Medical School Berlin (MSB) has found that simple methods can be used to combat this. They integrated high-intensity interval training (HIIT) into standard physical education and observed improvements in children's health within a very short period of time.

High-intensity interval training (HIIT) alternates short phases of intense physical exercise with recovery periods. "The more intense the exercise, the greater the effects seem to be, even in children," says Dr. Sascha Ketelhut from the Institute of Sports Science at MLU. It is not about how long you exercise, but rather about how intensively you exercise within a short period of time. "Interestingly, this form of intermittent exercise is precisely how children move naturally," says Ketelhut. Children do not have a natural propensity to go jogging for long distances. Instead, constantly alternating between intensive periods of exertion and short phases of recovery, like in games such as tag, is more in keeping with how children naturally move and play.

The effects of HIIT have been well studied in adults, but little research has been done on children outside of competitive sports. Therefore, a research team led by Ketelhut integrated the method into the regular physical education of third graders. For the first 20 minutes, normal physical education lessons were replaced by activities involving intense movement, such as relay races with short sprints or circuit training, which was repeatedly punctuated by short recovery periods. "We tried to select intensive forms of exercise that were also fun," says Ketelhut. The training sessions were often accompanied by music and choreography. The study only ran for three months but was able to produce noticeable outcomes during this time. Both endurance performance and blood pressure improved significantly during the trial period. Ketelhut believes that this will also help prevent long-term health issues. "High [blood pressure](#) as a child often leads to [high blood pressure](#) as an adult."

According to Ketelhut, the results support the idea of integrating HIIT

into regular physical education lessons since the training method is effective and suitable for children, and it motivates them to exercise. The training can easily be incorporated into a standard sports curriculum as it is not very time-consuming.

More information: Sascha Ketelhut et al, Effectiveness of Multi-activity, High-intensity Interval Training in School-aged Children, *International Journal of Sports Medicine* (2020). [DOI: 10.1055/a-1068-9331](https://doi.org/10.1055/a-1068-9331)

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