



CRITICAL WARNING

## The dangerous link between obesity and dengue hospitalisation in children

Dengue, a mosquito-borne viral infection, can range from mild flu-like symptoms to severe, life-threatening conditions. While obesity is already known to worsen the severity of dengue in hospitalised patients, its role in increasing the likelihood of hospitalisation has not been thoroughly explored. With the global rise in obesity rates, understanding this potential link is vital for effective disease control and prevention strategies.

A team of researchers set out to investigate whether obesity is associated with an increased risk of hospitalisation for dengue in children. The study focused on a large cohort of Sri Lankan children, forming part of an island-wide dengue sero-surveillance project and was published in the PLOS Neglected Tropical Diseases journal.

The study involved 4,782 children aged 10 to 18, selected from nine districts in Sri Lanka. The results showed that, while dengue infection rates were similar across different BMI percentiles, there was a significant difference in hospitalisation rates. Among children with a BMI percentile over 97 (considered obese), 18.2% who were seropositive for dengue had been hospitalized. In comparison, only 9.48% of seropositive children with a lower BMI percentile (less than 97) had been hospitalized. Children with a BMI percentile over 97 had more than twice the risk of hospitalisation compared to their peers with lower BMI percentiles.

Obesity is known to increase the risk of severe disease from many infections. If rising obesity rates lead to higher dengue hospitalisation rates, obesity could significantly contribute to the increasing hospitalisations seen in many dengue-endemic countries. Additionally, understanding how obesity and diabetes worsen dengue could lead to the development of specific biomarkers and treatments for at-risk populations.



## Accessible education for children with special needs

RABEYA FERDOUS

Education is one of the most crucial basic rights for all children. Children with special needs also have an equal right to educate themselves. Education may impact their everyday lifestyle. It may also improve personal development and increase people's independence in their daily lives.

Education is most challenging for children with special needs. There are a number of disabled children who have physical and psychological problems. Some children with special needs get the chance to enroll in school. Severely disabled children have difficulty attending school.

According to Bangladesh Education Statistics Report 2018, there were approximately 46,000 children with disabilities enrolled in government primary schools.

There are numerous challenges faced by students with special needs. There are listed below:

1. Students with attention deficit hyperactivity disorder (ADHD) or cerebral palsy (CP) may write or read slower than other normal students. For that reason, they and their parents feel dissatisfied with their school performance. They need more time and extra care to cope with this situation.

2. Student with special needs feels distracted in a disorganised classroom. They are not attentive to the teachers. So, the classroom should be well decorated. This can help to increase their performance.

3. Some students with special needs face difficulty making friendships. Normal students do not want to make friends with students from special schools. They try to isolate and give different types of stigma. In this situation, their teacher may socialise with new peers and learn from one another's unique strengths and knowledge. This type of peer monitoring may help students develop social skills, independence, and problem-solving skills.

4. Inaccessible classrooms may

hamper the education of students with special needs. The maximum classroom has stairs to enter the classroom. In this situation, we need to talk with the authorities about building a ramp. Additionally, accessible doors need to be ensured for wheelchair-user students.

5. Some teachers lack knowledge about the learning procedures of students with special needs. They need extra care, modification, and an individual education plan (IEP) as a course module. So, teachers should be trained to handle these challenging issues.

Education facilities and participation is one of the basic rights for children with special needs. To fulfill this basic right, the government focuses on accessibility in education. Accessibility means removing barriers that hamper a child's education. Disabled children need to make their environment accessible.

According to the National Education Policy 2010, the government follows the following strategies for physically challenged students:

1. The lavatory facilities and the scope of smooth movement will be adequately designed and created with special attention in order to fulfill the special needs of the physically challenged.

2. Special and preferential attention will be given to their needs.

3. At least one trainer will be recruited in each of the PTIs to meet the special teaching methods and needs of various types of challenged learners.

If proper education is achieved, then other rights such as job accessibility, participation at the economic and national level, or any other right granted by the government are likely to be easily obtained.

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# GLOBAL HEALTH ALERT

## 1.8 billion adults risk disease from physical inactivity

STAR HEALTH DESK

New data show that nearly one-third (31%) of adults worldwide, approximately 1.8 billion people, did not meet the recommended levels of physical activity in 2022. The findings point to a worrying trend of physical inactivity among adults, which has increased by about 5 percentage points between 2010 and 2022.

If the trend continues, levels of inactivity are projected to further rise to 35% by 2030, and the world is currently off track from meeting the global target to reduce physical inactivity by 2030. The World Health Organisation (WHO) recommends that adults have 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity, or equivalent, per week. Physical inactivity puts adults at greater risk of cardiovascular diseases such as heart attacks and strokes, type 2 diabetes, dementia, and cancers such as breast and colon.

The study was undertaken by researchers from WHO together with academic colleagues and published in the Lancet Global Health journal.

"These new findings highlight a lost opportunity to reduce cancer and heart disease and improve mental health and well-being through increased physical activity," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "We must renew our commitment to increasing levels of physical activity and prioritising bold action, including strengthened policies and increased funding, to reverse this worrying trend."

The highest rates of physical inactivity were observed in the high-income Asia Pacific region (48%) and South Asia (45%), with levels of inactivity in other regions ranging from 28% in high-income Western countries to 14% in Oceania.

Of concern, disparities remain between gender and age. Physical inactivity is still more common among women globally compared



with men, with inactivity rates of 34% compared to 29%. In some countries, this difference is as much as 20 percentage points. Additionally, people over 60 are less active than other adults, underscoring the importance of promoting physical activity for older adults.

Despite the worrying results, there are some signs of improvement in some countries. The study showed that almost half of the world's countries have made some improvements over the past decade, and 22 countries were identified as likely to reach the global target of reducing inactivity by 15% by 2030 if their trend continues at the same pace.

In light of these findings, WHO is calling on countries to strengthen their policy implementation to promote and enable physical activity through grassroots and community sport and active recreation and transport (walking, cycling, and use of public transport), among other measures.

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heart disease and improve mental health and well-being through increased physical activity," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "We must renew our commitment to increasing levels of physical activity and prioritising bold action, including strengthened policies and increased funding, to reverse this worrying trend."

"Promoting physical activity goes beyond promoting individual lifestyle choices; it will require a whole-of-society approach and creating environments that make it easier and safer for everyone to be more active in ways they enjoy to reap the many health benefits of regular physical activity," said Dr Fiona Bull, Head of the WHO Unit for Physical Activity.

Collective efforts based on partnerships between government and nongovernmental stakeholders and increased investments in innovative approaches will be needed to reach the least active people and reduce inequalities in access to measures promoting and improving physical activity.

### HAVE A NICE DAY

## Embracing Meliorism: Hope amidst uncertainty

DR RUBAUL MURSHED

In the late nineteenth century, George Eliot believed she had coined the term 'meliorist' when she wrote, "I do not know that I ever heard anybody use the word 'meliorist' except myself." Her contemporaries credited her with coining both 'meliorist' and 'meliorism,' and one of her letters contains an early documented use of 'meliorism.' George Eliot is the pen name of Mary Ann Evans, a writer praised for the realism of her work and her accurate depiction of lower and rural-class England.

Meliorism describes positions in moral philosophy that favour improving or making more tolerable the conditions that cause suffering, even if those conditions have long existed. This could involve advocating for cures for common diseases or supporting the development of serious anti-aging therapies. The term is also used by ethicists, who specialise in the study of right and wrong actions in human decisions.

Meliorism simply means 'better.' It opposes pessimism, which generally means 'worst,' and optimism, which means 'best.' Meliorism is the idea that progress is real and that humans can intervene in natural processes to improve the world. Social meliorism posits that education can improve society by increasing individual intelligence, regardless of background.

Today, in an age of internet-educated researchers and policymakers, can studies of human psychology help with choosing the right precautionary methods on an individual or national level? Beyond war, conflicts, and economic dimensions, this unpredictable chaos also has a mental and spiritual dimension. People are afraid, frustrated, and distressed in the face of this unprecedented wave of international political events. Here, scholars can offer some guidance with their research on the concepts of meliorism and 'morality' (kindness, forgiveness, and other moral values) and how to approach life more meaningfully.

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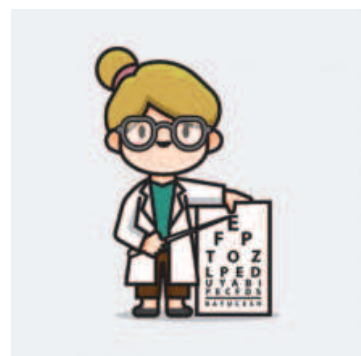


## Lipid-lowering drug slows progression of diabetic retinopathy

Fenofibrate is an FDA-approved medication for treating severe high triglycerides. Although it has not been shown to provide extra heart health benefits when added to statins, some studies suggest it might help reduce the need for laser treatment in diabetic retinopathy (a diabetes-related eye condition).

To investigate this, researchers studied 1,150 Scottish patients with early diabetic retinopathy or maculopathy, giving them either fenofibrate or a placebo. People with severe kidney issues were excluded, and fenofibrate doses were adjusted based on kidney function. This research was published in The New England Journal of Medicine.




The main goal was to see if fenofibrate could slow down the



progression of retinopathy or reduce the need for eye treatments like laser surgery. Over four years, fewer people taking fenofibrate needed these treatments compared to those on the placebo (23% vs. 29%). However, there was no difference in visual clarity or daily visual function between the two groups.

Fenofibrate was associated with a lower average kidney function (by 8 mL/minute/1.73 m<sup>2</sup>) during the trial, indicating a need for caution in patients with poor kidney health.

In summary, fenofibrate seems to slow diabetic retinopathy progression, with one in 15 patients benefiting over four years. However, its role in treating this condition is still uncertain, and it has not been FDA approved for this purpose yet. Additionally, fenofibrate can temporarily increase serum creatinine, requiring careful use in those with very low kidney function.

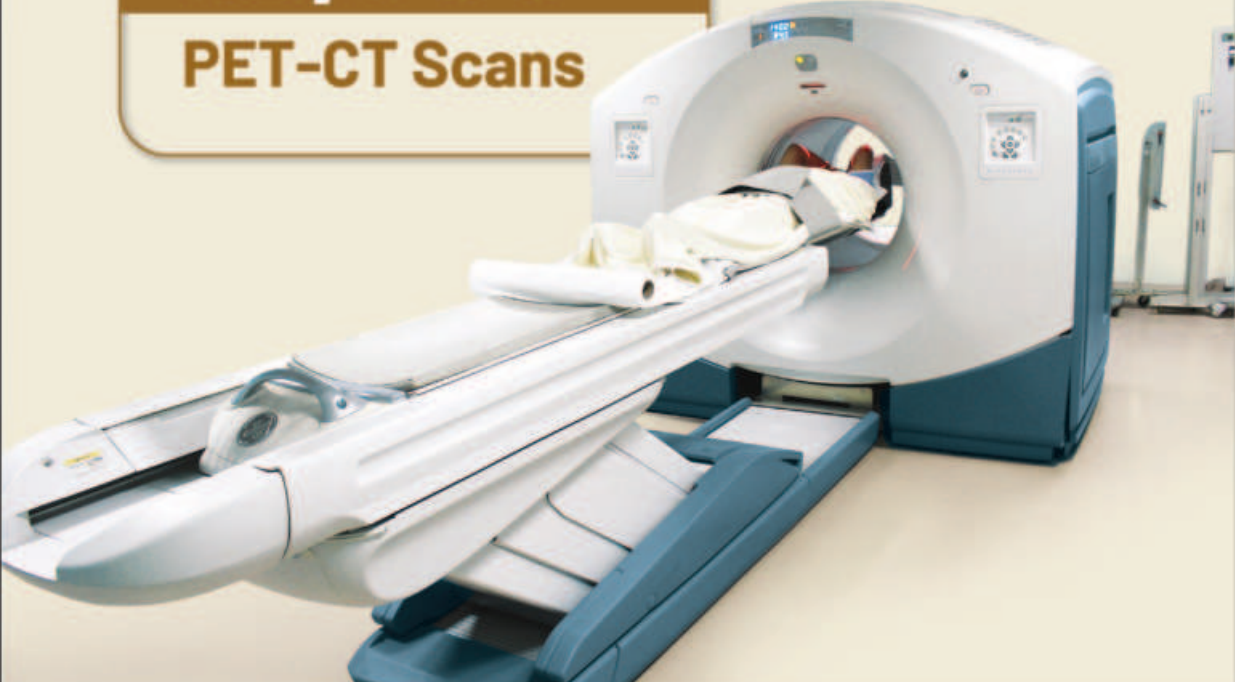




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