

## Time-restricted eating shows promising metabolic effects in type 2 diabetics

STAR HEALTH REPORT

A new study in Diabetologia finds that following a time-restricted eating (TRE) protocol that limits food intake to a 10-hour window shows promising metabolic effects in type 2 diabetic adults (T2D).

Fourteen people with T2D (7 men, 7 women, average age 67.5 years) and body mass index (BMI)  $\geq 25$  kg/m<sup>2</sup> were recruited for the study. Two 3-week intervention periods, TRE and control (CON), were separated by a 4-week washout period. At the start of each intervention, participants' body weight was measured, and a continuous glucose monitoring (CGM) device measured their blood sugar every 15 minutes. They were instructed to keep their normal sleep, activity, and weight. A food and sleep diary from the first intervention was used to ensure diet consistency during the second.

TRE decreased 24-hour glucose levels, mainly due to lower nocturnal blood sugar, and the average time with blood glucose in the normal range increased to 15.1 hours versus 12.2 hours during the CON phase. The TRE group had lower morning fasting glucose than the control group, possibly due to better nocturnal glucose control. TRE did not increase hypoglycemia (low blood sugar), and no serious adverse effects were reported, demonstrating that a 10-h eating window is a safe and effective lifestyle intervention for adults with T2D.



## Monkeypox infection Another great imitator

DR RAMISHA MALIHA

The World Health Organisation (WHO) has declared monkeypox a 'Public Health Emergency of International Concern'. The designation is the highest warning level that the WHO can issue and comes in the wake of a worldwide increase in cases. It occurred at the end of the WHO's emergency committee on the virus's second meeting. On the other hand, the danger level is moderate in all parts of the world except Europe, where it is considered high. More than 16,000 cases of monkeypox have been recorded in 75 countries. So far, five people have died as a result of the outbreak.

Monkeypox is a viral zoonosis (a virus transferred to people from animals) with symptoms similar to smallpox sufferers in the past. Animal-to-human (zoonotic) transmission may occur directly with infected animals' blood, body fluids, or cutaneous or mucosal sores. In addition, close contact with respiratory secretions, skin sores of an infected person, or recently contaminated items may result in human-to-human transmission.

Droplet respiratory particle transmission often requires prolonged face-to-face contact, putting health professionals, family members, and other close contacts of active patients at increased risk. In contrast, close physical contact is a well-known risk factor for transmission. Transmission through sexual activity was suspected in 95%, among which 98% of patients were gay or bisexual men; 2% were heterosexual.

It may be dangerous, with a case fatality rate of roughly 3-6%, although most individuals heal at home without the need for hospitalisation or medicine. Monkeypox is often a self-limiting illness with symptoms lasting 2 to 4 weeks. It includes fever, severe headache, lymphadenopathy (lymph

node swelling), back pain, myalgia (muscle pains), and severe asthenia (lack of energy).

In the second meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, the WHO Director-General issued temporary recommendations. The following are a few of their recommendations:

- Activate or establish health and multi-sectoral coordination mechanisms to strengthen monkeypox preparedness and stop human-to-human transmission.



- As part of existing national surveillance systems, establish and intensify monkeypox-compatible disease surveillance, including access to reliable, affordable, and accurate diagnostic tests.

- Raise awareness about monkeypox virus transmission, prevention and protective measures, and symptoms and signs among communities affected elsewhere in this multi-country outbreak (e.g., gay, bisexual and other men who have sex with men (MSM) or individuals with multiple sexual partners) and other population groups that may be at risk (e.g., sex

workers, transgender people).

- Raise awareness and train health workers in primary care, genitourinary and sexual health clinics, urgent care/emergency departments, dental practices dermatology, paediatrics, HIV services, infectious diseases, maternity services, obstetrics and gynaecology, and other acute care facilities.

- Implementing a coordinated response to stop human-to-human transmission of monkeypox virus and protect vulnerable groups (immunosuppressed individuals,

children, pregnant women) at risk of severe monkeypox disease.

- Intensify surveillance for illnesses compatible with monkeypox, strengthen laboratory and genomic sequencing capacity.

- Restrictions on international travels of those showing warning signs of monkeypox.

It is possible to mitigate the transmission of this contagious monkeypox if the public could abide by the rules set by the health authorities and the health organisations.

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HAVE A NICE DAY

## Knowing basics of behavioural sciences

DR RUBAUL MURSHED

We are all familiar with the term 'psychology' in our day-to-day life. Psychology is generally considered a sub-discipline of behavioural sciences, and the two areas experience some overlap in coursework and career paths. Both disciplines analyse human behaviour and require critical thinking courses. Some of us get psychology and psychiatry confused. Psychologists and psychiatrists both offer psychotherapy.

Most psychiatrists prescribe medication, while psychologists use talk and/or behavioural therapy. Then come clarifications about general, clinical, and neuropsychology. Before exploring these titles or designations, we should remember that they all understand the brain, emotions, feelings, and thoughts. Neuroscience is the scientific study of the central nervous system's structure, function, genetics, and physiology and how this can be applied to understand nervous system diseases. Some focus on medication and counselling, others on talking therapies, and others on brain/mind research.

Clinical psychologists focus on people with serious mental health issues, while general psychologists focus on healthier people. General psychology studies mental behaviours and psychological functions, while clinical psychology assesses and treats mental illnesses. Neuroscientists may or may not have medical degrees. Most are neuroscience specialists. These disciplines deal directly or indirectly with human actions, including sociology, social and cultural anthropology, biology, economics, geography, law, and political science.

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## Leaders at AIDS 2022 warn that the world is losing ground against HIV

Despite scientific breakthroughs, millions of lives needlessly lost to HIV

STAR HEALTH REPORT

Citing the 2022 UNAIDS Global AIDS update, titled "In Danger," UNAIDS Executive Director Winnie Byanyima shared that about 1.5 million new HIV infections occurred in 2021 – over one million more than the global targets. The report revealed that an adolescent girl or young woman acquires HIV every two minutes. The UNAIDS report also showed that the number of people on HIV treatment increased more slowly in 2021 than over a decade. Other indicators of faltering progress include the fact that only 52% of children living with HIV have access to life-saving medicine and that the gap in coverage between children and adults is increasing rather than narrowing.

"Despite effective HIV treatment and tools to prevent, detect, and treat opportunistic infections, 650,000 died from AIDS last year. Leaders should not confuse the red warning light with a stop sign," Byanyima said. "We know what to do. Shared science, vital services, and social solidarity have repeatedly succeeded in different contexts. By 2030, we can end AIDS. The curve will not bend itself. We must work together."

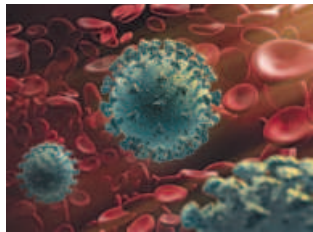
U.S. Global AIDS Coordinator and Special Representative for Health Diplomacy Ambassador-at-Large John Nkengasong announced that through reducing HIV incidence and prevalence

among adolescent girls and young women, women of childbearing age and adult men, an additional 3.5 million babies were born HIV-free from 2004 to 2021. Now, 5.5 million babies have been HIV-free due to the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and its partners.

"PEPFAR supported HIV prevention for adolescent girls and young women, voluntary medical male circumcision, and scaling up treatment for women and men with viral suppression.

Our prevention programme has kept 5.5 million babies HIV-free. This is a huge milestone for our programme, and the future," Nkengasong said. Since the launch of the advocacy and communications campaign, "U=U" or "undetectable equals untransmittable", in 2016, advocates around the world have worked to raise awareness of the fact that people living with HIV who – through antiretroviral treatment – reach and maintain an undetectable viral load cannot sexually transmit the virus to partners.

"The scientific fact that people living with HIV on effective treatment cannot pass on HIV is revolutionary," said Lean on Me Foundation Director Maurine Murenga. "Despite evidence and global recognition by WHO and IAS, U=U remains unknown. We can end the epidemic now. By prioritising HIV treatment, we can stay healthy and stop new transmissions. Everyone wins with U=U."




## Neurologic manifestations after COVID-19 vaccines


COVID-19 vaccination rarely causes neurologic symptoms. Multiple cases of neurologic symptoms after COVID-19 vaccination have been reported despite ten World Health Organization (WHO) approved vaccines and over 48% of the world's population being vaccinated. Between January 1, 2021, and June 14, 2021, researchers collected Vaccine Adverse Event Reporting System (VAERS) data to identify neurologic symptoms. Thirty-six neurologic diagnoses were reported 42 days after vaccination. Postvaccination neurologic symptoms were compared by vaccine type, age-matched U.S. incidence rates, and COVID-19 rates.

314,610 persons (0.1%) reported an adverse event and 105,214 (0.03%) experienced neurologic symptoms 1 day after vaccination. Guillain-Barré syndrome (GBS) and cerebral venous thrombosis (CVT) occurred in less than 1 in 1,000,000 doses. Janssen vaccine caused more neurologic symptoms than Pfizer-BioNTech or Moderna. GBS, CVT, and seizure observed-to-expected ratios after Janssen immunisation were  $\geq 1.5$  times background rates. Neurologic consequences following SARS-CoV-2 infection were 617-fold higher than after COVID-19 vaccination.

GBS, CVT, and seizures increased after the Janssen vaccination. SARS-CoV-2 causes more neurologic symptoms than COVID-19. Individuals and society benefit more from COVID-19 than its risks.



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