**DID YOU KNOW?** 

# What you need to know about monkeypox

The disease can be prevented by avoiding contact with the diseased person, practising personal hygiene maintenance, especially handwashing with soap and water, and wearing a mask. Isolate infected patients from others who could be at risk for infection.

PROF M KARIM KHAN

According to the BBC, over 80 cases of monkeypox have been verified in at least 12 countries, including the United States, Canada, Australia, the United Kingdom, Spain, Portugal, Germany, Belgium, France, the Netherlands, Italy, and Sweden recently. The situation is evolving and the World Health Organisation (WHO) expects there will be more cases of monkeypox identified as surveillance expands in non-endemic countries. Immediate actions focus on informing those who may be most at risk for monkeypox infection with accurate information, in order to stop further spread.

The monkeypox virus is a rare disease caused by infection with the monkeypox virus, and this virus is similar to the smallpox virus and cowpox virus. The first human cases of monkeypox were recorded in 1970 in the Democratic Republic of the Congo. The natural reservoir of monkeypox remains unknown. However, African rodents and non-human primates (like monkeys) may harbour the virus and infect people.

In humans, the symptoms of monkeypox are similar to but milder than the symptoms of smallpox. Monkeypox begins with fever, headache, muscle aches, and exhaustion. The main difference between the symptoms of smallpox and monkeypox is that the monkeypox causes lymph nodes to swell (lymphadenopathy) while smallpox does not. The incubation period for monkeypox is usually 7–14 days but can range from 5–21 days.

The illness begins with fever, headache, muscle aches, backaches, swollen lymph nodes, chills, and exhaustion; within 1 to 3 days, sometimes long after the appearance of fever, the patient develops a rash, often beginning on the face and then spreading to other parts of the body. Lesions progress through the following stages before falling off: macules (flat, reddened area in a skin



rash), papules (raised area is a skin rash), vesicles (blisters on skin), pustules (pus), and scabs (a protective tissue covering that forms after your skin has been damaged). The illness typically lasts for 2-4 weeks. In Africa, monkeypox has been shown to cause death in as many as 1-10%.

Transmission of monkeypox virus occurs when a person comes into contact with the virus from animals, humans, or materials contaminated with the virus. The virus enters the body through broken skin, respiratory tract, or mucous membranes (eyes, nose, or mouth).

Currently, there is no proven, safe treatment for monkeypox virus infection. However, the treatment can be based on symptoms. To control a monkeypox outbreak in the United States, the smallpox vaccine, antivirals, and vaccinia immune globulin (VIG) can be used. The smallpox vaccine may protect against the infection to some extent.

The disease can be prevented by avoiding contact with the diseased person, practising

strict personal hygiene maintenance, especially handwashing with soap and water, and wearing a mask. Isolate infected patients from others who could be at risk for infection. Use personal protective equipment (PPE) when caring for patients. No monkeypox cases have been detected in Bangladesh yet, Bangabandhu Sheikh Mujib Medical University (BSMMU) says. However, Bangladesh declared a health alert amid rising cases of Monkeypox across the world.

As we maintained in the COVID-19 infection, personal hygiene is sufficient to protect us from monkeypox infection. Furthermore, visitors from other countries should be quarantined for a few days. Passengers arriving from affected countries must be subjected to increased monitoring and health screening at all international airports and land ports. Nothing to be panicked about. Take care; stay safe and healthy.

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### While the fetal clock develops, mom's behaviour tells the time During foetal development, before the biological

During foetal development, before the biological clock starts ticking on its own, genes respond to rhythmic behaviour in the mother. The hypothalamus's suprachiasmatic nuclei (SCN) are the body's timekeepers. Rhythmic gene activity in SCN cells governs the activity of many other genes locally and throughout the body, influencing circadian rhythmic behaviour such as feeding and sleeping. But rhythmic gene activity begins late in foetal development, raising the question of whether maternal influences entrain SCN gene activity before birth.

The authors compared gene activity in SCN tissue from pregnant rats kept in the dark under two conditions. Lesioned rats had disrupted SCNs and limited food access to impose a circadian rhythm in their activity that their SCNs could not sustain. Control rats had intact SCNs and free access to food.

They found that, within the SCNs of both sets of fetuses, there was a very small set of genes whose timing patterns differed between the two groups and a much larger set whose activity oscillated in sync with each other.

The study reveals that distinct maternal signals rhythmically control a variety of neuronal processes in the fetal rat suprachiasmatic nuclei before they begin to operate as the central circadian clock. The results indicate the importance of a well-functioning maternal biological clock in providing a rhythmic environment during fetal brain development.



## Natural remedies for acne

DR TRISITA SAHA BISWAS

Acne occurs when skin pores become clogged with hair, sebum, germs, and dead skin cells. Acne requires medication and physical care. Here are the five acne fighting tips.

Cleaning: Clean your

affected area with mild soap and lukewarm water, but no more than two times a day. Frequent

more than two times a day. Frequen cleaning may irritate your skin, which will worsen the symptoms.

**Skip touching:** Do not squeeze out the blackheads or pimples. This may result in a permanent scar. Resist touching your face repeatedly, as bacteria may transfer to your skin.

Caution with make-up use: Avoid using excess make-up or skincare products. If you do, use noncomedogenic water-based products. Also, make sure to remove your make-up before bedtime.

**Skin moisturiser:** Skin hydration is essential, for which you can use a moisturiser or fragrance-free water-based emollient.

**Diet and exercise:** A healthy, balanced diet works as a foundation for good skin. Again, stress triggers acne breakouts. Regular exercise can

boost your mind and relieve stress and anxiety.

Acne is depressing, but it is possible to get rid of it by being consistent and patient with the

The writer works as a Research and Policy Assistant in Centre for Research, Innovation and Development Action (CRIDA).

### Early exercise after breast cancer surgery improves outcomes

Axillary lymph node dissection causes arm and shoulder disability in breast cancer patients. This procedure is becoming less common since sentinel lymph node biopsy. In this multicenter United Kingdom trial, researchers assessed the effect of a structured exercise programme on functional outcomes in breast cancer nodal surgery and radiotherapy patients at high risk for upper limb disability.

Total 392 patients were randomised to usual care alone or usual care plus a structured exercise program starting 7 to 10 days after surgery to improve shoulder movement, strength, and activity. At one-year, upper limb function measured by the Disability of Arm, Hand and Shoulder (DASH) questionnaire was significantly improved in the

exercise group compared with the usual-care group. Exercise improved pain and

disability symptoms. Exercise did not increase complications. Comparing the intervention to usual care showed cost-effectiveness. After nonreconstructive breast cancer surgery and radiotherapy, early structured exercise improves function and disability. Programmes, where this intervention is not normally the standard should change practice to include it.



DR MUHAMMAD TOREQUL ISLAM, TAWHID ISLAM

Migraine can be defined as a primary headache, characterized by frequent headaches from mild to severe, usually affecting one side of the head and sustaining for hours to three days. This disorder can be ranked as the most prevalent consequence of the disability of people under 50 years of age. Approximately 14.4% of global adults have migraines.

Several facts, including vascular dysfunction, cortical spreading depression, activation of the trigeminovascular pathway, pro-inflammatory and oxidative state, etc., play major roles in migraine pain generation.

As a result, physicians are accustomed to using multimodal migraine treatment approaches to improve the quality of life in this group of patients.

Among the alternative strategies, dietary interventions may be the best. The ketogenic (a very low carb, high fat diet) and modified Atkins diets (a less restrictive variation of the ketogenic diet: it starts on an outpatient basis without a fast, allowing unlimited protein and fat and non-restricting calories or fluids) have been shown to provide neuroprotection, improve mitochondrial function and energy metabolism, compensate for serotoninergic dysfunction, and lower calories. A low glycemic diet's anti-inflammatory properties may help with headaches and migraines.

Inflammation and irregular hypothalamic function link obesity and headaches (including migraines).

Thus, weight-loss diets can reduce headaches and migraines. Balanced omega-6 and omega-3 intake affect inflammation, platelet function, and vascular tone, which improves headache/migraine. Migraine patients with food sensitivities can also follow the elimination diet. Dietary approaches can be effective migraine preventives.

Magnesium- and omega-3-rich foods may also help migraine sufferers. For example, pumpkin seeds, spinach, cashews, peanuts, dark

leafy greens, avocado, tuna, etc., are high in magnesium. In addition, fatty fish (pangash, Katla, carp, catfish, hilsa, salmon, etc.), seeds, and legumes are high in omega-3 fatty acids.

On the other hand, some diets can trigger migraines. There is no complete list of it, but some foods containing high nitrogen content (hot dogs, meats), beta-phenylalanine containing chocolate, processed food containing monosodium glutamate, food containing aspartame (an artificial sugar),

fermented food or old cheeses which contain tyramine and importantly alcoholic beverages (wine or beer) should be avoided.

Before taking any dietary steps for migraine, it is important to consult with a physician.

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