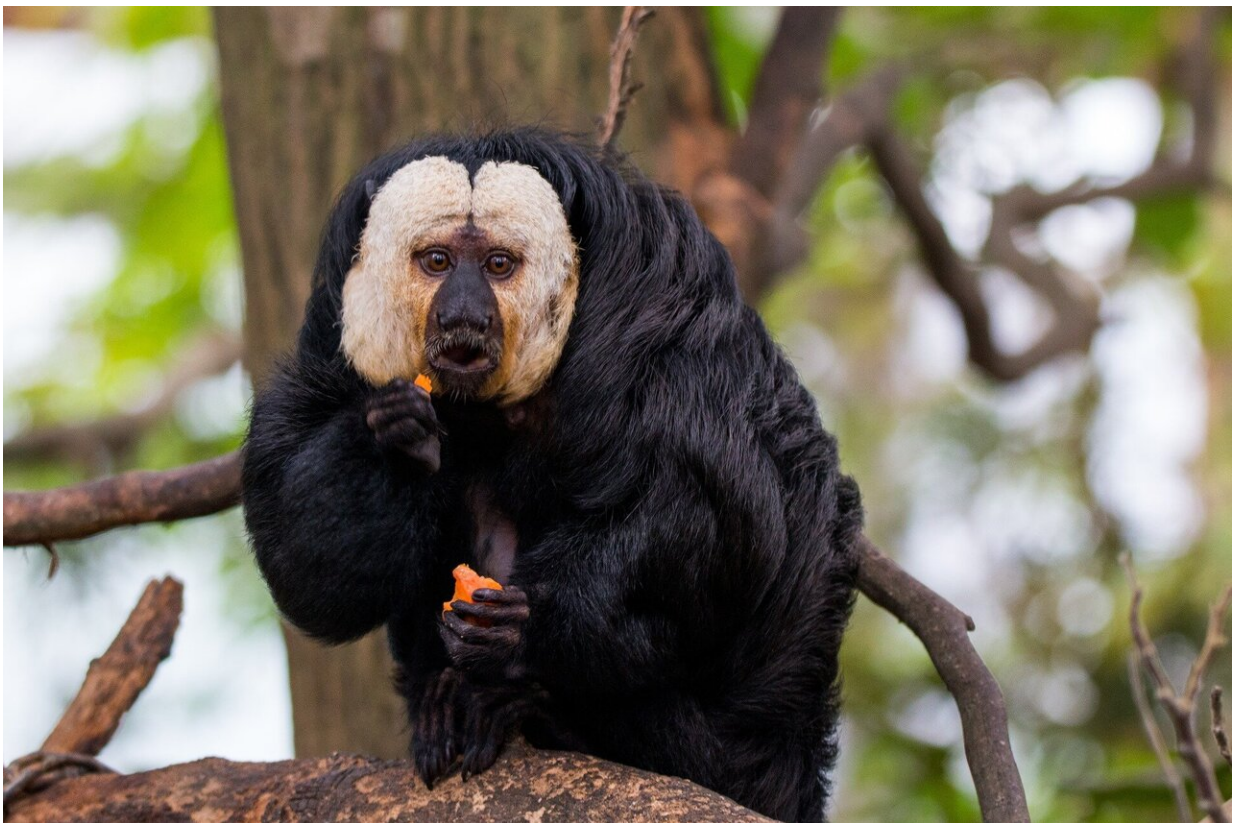


# Man who caught virus from a monkey in a critical condition—B virus explained

April 16 2024, by Colin Michie

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A 37-year-old man wounded by a wild monkey in Hong Kong is in [intensive care](#) suffering from infection with B virus.

Although this is the first reported case of a B virus infection in a human in Hong Kong, it is not the first in the world. The US Centers for Disease Control and Prevention has recorded 50 cases of human infection since 1932, when the virus was first identified. Twenty-one of those infected [died](#).

The first person—as far as we know—to catch B virus was a young doctor called [William Brebner](#). He was bitten by a [macaque monkey](#) while researching poliovirus. The bite wound healed, but neurological illness eventually ensued, leading to respiratory failure. Brebner died at Bellevue Hospital, New York, in November 1932.

After his death, his brain tissues were found to cause neurological damage when injected into rabbits. Brebner's colleagues Albert Sabin and Arthur Wright [labeled this agent "B"](#).

We now know that the virus belongs to the herpes family, hence its other moniker: "[herpes virus B](#)". It is a [biosafety category 4 virus](#), the highest level—the same as Ebola and unknown new pathogens.

Prompt treatment with [antiviral drugs](#) can be lifesaving, but B virus remains a deadly pathogen. If not treated promptly, it has a [mortality rate of 70%](#). There is no vaccine against this virus.

[Most cases of B virus infection](#) have involved laboratory workers handling captive animals or monkey tissues, rather than those living alongside these excitable, toothy animals in the wild.

## Old World primates

In this most recent case, the 37-year-old man was attacked by macaques at Hong Kong's Kam Shan Country Park—known locally as Monkey Hill. There are about [1,800 wild monkeys](#) in Hong Kong, including two different macaque species. The authorities are warning people not to approach these creatures.

Macaques are a particularly adaptable group of old world primates with a wide global distribution. They live in towns, villages and temples across Asia and have been introduced elsewhere. They include the Barbary apes of Gibraltar, which were [provided with rations](#) by the British army after the second world war.

They are eaten as a delicacy in Indonesia and sold elsewhere as bush meat. Indonesian folklore through the centuries provides detailed observations of these creatures, but reassuringly [no evidence](#) that macaques caused harm to humans.

Despite lots of contact with many humans, there are remarkably few recorded episodes of spill-over of B virus outside laboratories. The virus does not [spread easily](#).

A few cases show that bites and scratches from a macaque, or contact with the monkey's mouth, nose or body fluids can transfer B virus that may be on the animal's skin or in its mouth. (Most macaque populations harbor B virus, but without symptoms.)

Signs of infection in a human usually develop within two to 30 days. There may be blisters around the contact point or wound, together with a flu-like illness.

The virus can spread to lymph nodes and the nervous system. This causes

agitation, confusion, double vision, trouble with coordination and muscle weakness.

Patients can develop hiccups if this inflammation involves the brain stem. If it reaches the lungs, they may need to be admitted to an [intensive care](#) unit.

## **No immediate fear**

Spread of this virus between humans is highly unlikely. Only one account describes the spread of B virus from one human to another. The contact case was linked to the use of a cream [previously used on a patient](#).

There is no evidence of a new B virus strain in the primates on Monkey Hill, so this case of herpes B has no features of a new zoonosis. However, it should raise our awareness of the potential risks posed by viruses carried by animals.

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