

## COMMUNICABLE DISEASES MEASLES

# A little spot of bother

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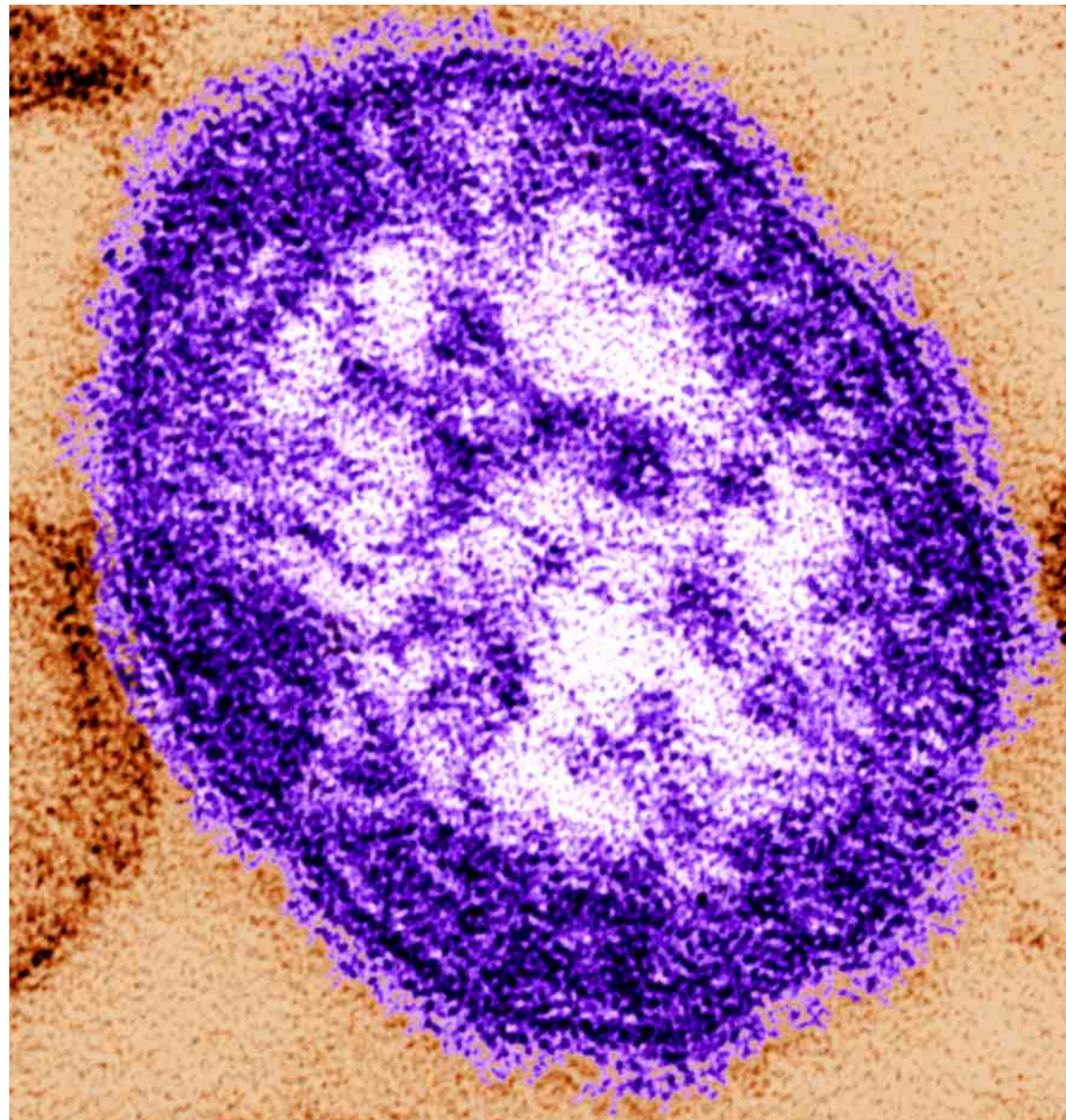
If you travel often, you might want to check that you and your family have been immunised against measles. The disease might be under control in Hong Kong but, since 2009, outbreaks have been reported in many other parts of the world.

In Hong Kong, children are vaccinated against the disease when they are a year old. They then receive a booster when they are in Primary One or aged about six years old (a booster is recommended because 2 per cent to 5 per cent of people do not respond to the first dose of the vaccine). The vaccine is also called MMR as it combines vaccines for measles, mumps and rubella.

According to the Centre for Health Protection, there were 12 reported cases of the measles in Hong Kong last year and five cases this year to May 31. Unfortunately, in some countries the numbers are not as low. The risk of contracting measles is high in developing areas in Asia and Africa, where there is overcrowding, and where poverty is rife and health infrastructure is weak.

According to Brian Ward, professor of infectious diseases and microbiology at McGill University in Montreal, Canada, measles is a disease caused by a virus with the same name that is a member of the paramyxovirus family. Highly infectious, it remains active and contagious for up to two hours in the air or on surfaces, and is easily spread via the respiratory system – through contaminated droplets from coughing and sneezing.

Measles is commonly believed to be a childhood disease, but unless you have had it before or have been adequately vaccinated, you are susceptible to the virus at any age. Protection provided by vaccination is sometimes incomplete, and a modified and usually milder form of the disease can occur in people who have received one or even two doses of the vaccine, says Ward, who is also associate director of the J.D. MacLean Tropical Diseases Centre at McGill. It is presumed that a newborn child is protected in



The measles virus has an incubation period of up to 12 days. Photo: CDC

the first six to nine months of life by maternal antibodies, if the mother is protected.

The disease shows up as flu-like symptoms accompanied by a reddish-brown rash. It tends to be more severe in the very young, says Dr Diane Griffin, chairwoman of the department of molecular microbiology and immunology at Baltimore's Johns Hopkins University Bloomberg School of Public Health. After exposure to the virus, there is an incubation period of about eight to 12 days before the symptoms appear.

"Unless you have partial protection, you would initially experience a runny nose, red, watery eyes and a fever for a couple of days, followed by a blotchy rash on your entire body," Ward says. "The fever can be very high – 40 degrees Celsius or higher – and acute infection can be accompanied by diarrhoea and maybe coughing."

The disease can lead to serious health complications and even death. The most common complications are secondary bacterial pneumonia and diarrhoea, but encephalomyelitis – an inflammation in the brain triggered by measles – can also occur, Griffin points out. Encephalomyelitis, however, is rare, occurring in about one in 1,000 measles sufferers. "It is an autoimmune reaction and can lead to seizures or mental retardation," she says.

Certain people are at greater risk of developing these complications, such as children under the age of three, malnourished children (especially those with insufficient vitamin A and who have lowered immunity), and patients over 65 who have contracted the disease for the first time.

Unfortunately, there is no treatment for the disease. Most patients recover within two or three

weeks, but in areas where measles mortality remains high (more than 1 per cent), a high dose of vitamin A is recommended, says Ward. Up to 30 per cent of adults who become infected are admitted to hospital, and the rate is even higher in young children, he adds.

Several developed countries have reported measles outbreaks in recent months, including France, Britain, Italy, Germany and Spain. And the Centres for Disease Control and Prevention in Atlanta reports that 222 people in the US caught the disease last year – more than three times the national average of 60 per year.

According to the World Health Organisation, 139,300 people died of the disease globally in 2010 – nearly 380 deaths every day, or almost 16 every hour. This figure, however, represents about a 74 per cent drop from the 535,300 measles deaths reported in 2000.

The last measles outbreak in Hong Kong was in 2007. Between January and April, 17 cases were reported. In most of these cases, the patients either did not have appropriate vaccination or were not yet due for a vaccination, according to the Health Department's Centre for Health Protection.

To prevent another outbreak, Hong Kong residents are advised to get their measles vaccination before travelling. "Appropriate vaccination is the best and really the only protection," says Ward. "Travelling families should ensure that everyone's vaccinations are appropriate, and not just [those for] the kids."

If your child is aged between six and 11 months and has not yet been vaccinated, speak to a doctor about getting the first measles shot before you travel overseas. The vaccine is safe and very effective. Dr Winnie Mui of Dr Lauren Bramley & Partners in Central advises you to maximise your immunity with sufficient rest, a balanced diet, hydration and exercise. And minimise contact with individuals who are ill or have a fever or a rash.

Although some doctors will tell you to avoid travelling to destinations where there are outbreaks, Griffin says that as long as you have been appropriately immunised, you are protected for life. To be on the safe side and to allay any fears, it is important to maintain good personal and environmental hygiene. So, cover your nose and mouth when sneezing or coughing, keep your hands clean at all times, dispose of nasal discharge and sputum carefully and avoid sharing eating utensils – habits that should be practised daily, no matter which part of the world you are in.



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PROFESSOR BRIAN WARD, MCGILL UNIVERSITY

380

Average number of measles deaths reported per day in 2010, according to the World Health Organisation