

Parvovirus B19 Resurgence in U.S.: The 'Slapped Cheek' Virus

Description



A parvovirus B19 infection can result in a facial rash in children, hence the colloquial term "slapped-cheek disease."

Dr. P. Marazzi/Science Source

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Federal health authorities are cautioning healthcare providers to remain vigilant for a respiratory virus called parvovirus B19, as infection rates rise in the United States.

Parvovirus B19, a long-standing virus, typically manifests mild or asymptomatic symptoms in children and healthy adults. However, it can pose severe complications for pregnant individuals, immunocompromised patients, or those with specific hematologic conditions.



In a [recent health advisory](#) issued by the Centers for Disease Control and Prevention, a surge in the number of individuals testing positive for antibodies of parvovirus B19, indicating recent infections, has been noted, particularly among children aged 5 to 9.

This year, health authorities across 14 European nations have also reported an unusually high incidence of cases, as highlighted by the CDC.

Infections typically peak during late winter, spring, and early summer, with minor outbreaks occurring every three to four years. The current spread coincides with the start of the new school year.

Here are essential facts about the virus.

How does it spread, and how do I know if I'm infected?

Parvovirus B19 transmission occurs through respiratory droplets, blood, or vertical transmission from mother to fetus during pregnancy. (Note: Canine parvovirus is distinct from parvovirus B19 and does not transfer between pets and humans.)

While many infected individuals remain asymptomatic, symptoms vary by age for those who do exhibit signs.



In children, initial symptoms resemble flu-like manifestations, including fever, headache, and cough, with contagiousness peaking during this phase, lasting several days. Subsequently, children might develop a facial rash, hence the moniker "slapped-cheek disease."

Conversely, adults commonly experience joint pain as a predominant symptom, lasting from days to weeks.

How concerned should I be?

For most, recovery occurs without specific treatment, except when the virus impacts the bloodstream, leading to complications like severe anemia.

A parvovirus B19 infection typically does not pose a direct threat to pregnancy or the fetus. Nevertheless, in rare instances, fetal anemia or miscarriage may occur as a result of an infection.

Individuals with compromised immune systems or certain hematologic conditions face a higher risk of severe anemia due to infection, necessitating proactive management.

Most adults develop immunity to the virus over time. As per the [CDC](#), approximately 50% of adults possess detectable antibodies by age 20, increasing to over 70% by age 40.

How can I ensure safety?

Adhering to standard hygiene practices, such as regular hand-washing and disinfecting frequently touched surfaces, is essential in preventing viral spread, akin to other respiratory infections.

Individuals at heightened risk should promptly notify healthcare professionals if exposed to a child presenting with high fever followed by a rash, emphasizes Dr. Kawsar Talaat, an infectious disease specialist from Johns Hopkins Bloomberg School of Public Health.

"Remaining calm is crucial. Most infections are mild and resolve spontaneously," Talaat notes. "This serves as a preemptive advisory for healthcare providers to anticipate heightened infection rates and attend to vulnerable populations accordingly."

NPR's Pien Huang provided reporting for this article.



Vocabulary List:

1. **Infection** /ɪn'fɛkʃən/ (noun): The invasion and multiplication of microorganisms in body tissues.
2. **Vigilant** /'vɪdʒɪlənt/ (adjective): Keeping careful watch for possible danger or difficulties.
3. **Asymptomatic** /,eɪ.sɪmp.tə'mætɪk/ (adjective): Having or showing no symptoms of a disease.
4. **Complications** /,kɒmplɪ'keɪʃənz/ (noun): Difficulties or problems that arise as a result of a condition.
5. **Contagiousness** /kən'teɪdʒəsənəs/ (noun): The quality of being easily spread from one person to another.
6. **Proactive** /prəʊ'æk.tɪv/ (adjective): Creating or controlling a situation rather than just responding to it after it has happened.

Comprehension Questions

Multiple Choice

1. How does parvovirus B19 transmission occur?
Option: Through respiratory droplets blood or vertical transmission from mother to fetus during pregnancy
Option: Through contaminated food and water
Option: Through physical contact with infected individuals
Option: Through airborne particles in the environment
2. What is a common symptom experienced by infected children?
Option: Joint pain
Option: Chest tightness
Option: Facial rash
Option: Shortness of breath
3. What is a predominant symptom in infected adults?
Option: Joint pain
Option: Fever
Option: Cough
Option: Headache
4. How do most adults develop immunity to the virus over time?
Option: Through vaccination



- Option: By exposure to the virus
- Option: Through antiviral medications
- Option: Through genetic predisposition

5. When do infections of parvovirus B19 typically peak?

- Option: Summer and fall
- Option: Late winter spring and early summer
- Option: Throughout the year
- Option: Winter and spring

6. What preventive measure is essential in preventing viral spread?

- Option: Avoiding public places
- Option: Regular hand-washing and disinfecting frequently touched surfaces
- Option: Wearing face masks at all times
- Option: Consuming immune-boosting supplements

Answer

Multiple Choice: 1. Through respiratory droplets blood or vertical transmission from mother to fetus during pregnancy 2. Facial rash 3. Joint pain 4. By exposure to the virus 5. Late winter spring and early summer 6. Regular hand-washing and disinfecting frequently touched surfaces

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What are different forms of a virus called?

- Option: A. Mutations
- Option: B. Adaptations
- Option: C. Variants
- Option: D. Transformations

2. What can arise as a result of untreated medical conditions?

- Option: A. Complications
- Option: B. Symptoms
- Option: C. Recoveries
- Option: D. Diagnoses

3. What term describes something that is harmful or damaging?



- Option: A. Detrimental
- Option: B. Beneficial
- Option: C. Neutral
- Option: D. Supportive

4. What word best describes actions taken in advance to prevent issues?

- Option: A. Proactive
- Option: B. Reactive
- Option: C. Passive
- Option: D. Inactive

5. If something is widespread or commonly occurring it is described as being:

- Option: A. Rare
- Option: B. Uncommon
- Option: C. Prevalent
- Option: D. Isolated

6. What term refers to the act of interfering with a situation to modify its outcome?

- Option: A. Noninterference
- Option: B. Intervention
- Option: C. Abstinence
- Option: D. Omission

7. What characteristic describes the ease with which a disease can be transmitted from one person to another?

- Option: A. Infectiousness
- Option: B. Contagiousness
- Option: C. Treatment
- Option: D. Prevention

8. What term refers to the brain's ability to change and adapt over time?

- Option: A. Solidity
- Option: B. Rigidity
- Option: C. Plasticity
- Option: D. Stability

9. Which word is used to describe individuals or entities that initiate new developments or ideas?

- Option: A. Following
- Option: B. Pioneering
- Option: C. Traditional
- Option: D. Conventional

10. What term describes the state of being active or in motion?



- Option: A. Passivity
Option: B. Activity
Option: C. Stagnation
Option: D. Restfulness

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. The doctor noted an _____ heart rate in the patient.
12. Airport security emphasized the need for constant _____ in detecting potential threats.
13. The successful _____ of the new software system greatly improved efficiency.
14. The company recorded a _____ increase in profits this quarter.
15. The _____ procedure required a longer recovery time for the patient.
16. The artist created a _____ painting with vibrant colors and abstract shapes.
17. The doctor explained the strong _____ between smoking and lung cancer.
18. The IT department upgraded the company's computer _____ to improve connectivity.
19. The sudden _____ of the new technology took the market by storm.
20. Only authorized personnel were granted _____ into the restricted area.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Regular exercise is important to maintain a healthy lifestyle.
22. The doctor prescribed antibiotics to treat the bacterial .
23. The security guard remained throughout the night patrol.
24. The professor's research focused on the processes involved in decision-making.



25. The spa offered a range of treatments to help guests relax and rejuvenate.
26. The scientist's discovery was hailed as a advancement in the field of medicine.
27. People infected with the virus may remain and unknowingly spread the disease.
28. The new technology has the potential to traditional business models.
29. Health officials are monitoring the of the influenza virus in the community.
30. Skipping breakfast can have effects on one's metabolism.

Answer

Multiple Choice: 1. A. Mutations 2. A. Complications 3. A. Detrimental 4. A. Proactive 5. C. Prevalent 6. B. Intervention 7. B. Contagiousness 8. C. Plasticity 9. B. Pioneering 10. B. Activity

Gap-Fill: 11. elevated 12. vigilance 13. implementation 14. substantial 15. invasive 16. psychedelic 17. association 18. network 19. emergence 20. admittance

Matching sentence: 1. Activity 2. Infections 3. Vigilant 4. Cognitive 5. Therapeutic 6. Groundbreaking 7. Asymptomatic 8. Disrupt 9. Prevalence 10. Detrimental

CATEGORY

1. Health - LEVEL6

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