MONTHLY SCIENTIFIC REVIEW
ON CHIKUNGUNYA VIRUS

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All informations comes from a valid and credible source.

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ANRS Emerging Infectious Diseases - Paris, France

Situation at a glance

- On 27 January 2026, the first locally acquired case of chikungunya since 2014 was detected in Kourou, French Guiana. As of 16 April 2026, 108 cases had been confirmed, with the majority reported in the Western Coastal area (82%). Hospital-based surveillance identified 30 hospitalized patients, with a distribution of common forms (70%), atypical forms (27%), and severe forms (3%) similar to that observed during the 2014–2015 outbreak.
- Between 2010 and 2024, no cases had been detected on Réunion Island. In 2025, Réunion experienced a major outbreak, with nearly 54,550 laboratory-confirmed locally acquired chikungunya cases and 43 deaths. Health authorities declared the end of the outbreak on 24 June 2025. In parallel, Mayotte also reported active viral circulation with more than 1,200 cases.
- Mainland France also experienced active CHIKV transmission, with a total of 787 locally acquired cases and 1,053 imported cases reported as of 17 October, across 15 departments of metropolitan France.

Scientific articles

This section presents relevant articles published on peer-reviewed scientific journals or pre-print platforms.

2026-04-07

Chikungunya virus at a crossroads: Emergence, interventions, and global health strategies.

Journal: J Infect Public Health

Authors: Jiachen Wu, Shan Wu, Yiu-Wing Kam

CHIKV threatens 2.8 billion across 104 countries, driven by climate change, travel, and vector spread. Epidemics exacerbated by mutations, waning immunity, and urbanization. Vaccines and diagnostics advance, but surveillance, vector control, and global investment are crucial to prevent endemicity.

See details

2026-03-22

Post-marketing safety evaluation of the live-attenuated chikungunya vaccine (IXCHIQ).

Journal: Vaccine

Authors: Gerard Timmy Vondeling, Julio Croda, Tomas Jelinek, George Kassianos, Herwig Kollaritsch, Liem Binh Luong Nguyen, Guilherme Sousa Ribeiro, Jonas Schmidt-Chanasit, Stephen J Thomas, Zsuzsanna Unger, Adrianne de Roo, Eric Plennevaux, Juan Carlos Jaramillo

IXCHIQ, a live-attenuated chikungunya vaccine, showed 35 serious adverse events (6.3 per 10,000 doses) in 55,900 doses, mainly in older adults with comorbidities. Most events were systemic or neurological, with three fatalities in older men with multimorbidity. Regulatory

See details

2026-04-08

Predominance of Arboviruses in Acute Encephalitis and Guillain-Barré Syndrome: Findings from a Prospective Cohort in Northeast Brazil.

Journal: Int J Infect Dis

Authors: Mateus Santana do Rosário, Maria Paula de Souza Sampaio, Lorena Cunha Martins, Luiza Vieira Luedy Trindade, Gabriela Farias Carreiro, Breno Pinheiro de Almeida Franco E Castro, Bernardo Gratival Gouvea Costa, Gessica Almeida Vasconcelos, Jesângeli de Sousa Dias, Alan Oliveira Duarte, Fernanda Lopes Habib, Cassia Flavia Moreira Souza, Pedro Sampaio Almeida Ramos Conceição, Mariellen Santos de Jesus Souza, Pedro Antonio Pereira de Jesus, Daniel Santana Farias, Murilo Santos Souza, Adilson Junior Pinto Galvão, Felipe Oliveira Costa, Tarsis Leonardo Almeida Farias, Jamary Oliveira Filho, Thiago Gonçalves Fukuda, Celia Silvany, Janeusa Rita Leite Primo Chagas, Jose Mário Meira Teles, Gubio Soares Campos, Silvia Inês Sardi, Ively Paixão Santos, Ricardo Khouri, Marcia Carvalho Bessa, Maricelia Maia de Lima, Tiago Gräf, Isadora Cristina de Siqueira

Arboviruses, notably CHIKV, DENV, and OROV, are primary causes of acute neurological syndromes in northeast Brazil, emphasizing the need for advanced diagnostic tools and surveillance.

See details

2026-03-24

Exploring the mental health impact of chikungunya fever: a scoping review.

Journal: Infect Dis (Lond)

Authors: Priyanka Renita D'Souza, Sharanya B Shetty, Rakshita Satish, Liya Thomas

Chikungunya may cause mood, anxiety, and somatoform disorders, often linked to chronic arthralgia. Perinatal exposure may lead to neurodevelopmental issues. Multifactorial mechanisms are suggested, necessitating integrated mental health care.

See details

2026-03-30

Tupaia belangeri better reflects the typical symptoms of Chikungunya virus infection than mice: a comparative study.

Journal: Virol Sin

Authors: Yan Guo, Mengyuan Zheng, Qi Wang, Hui Xiao, Li Liu, Shuwei Dong, Yonghan Luo, Zhouling Pan, Yujie Xiang, Yanxian Jiang, Xiao Chen, Hailin Tang, Yuemei Feng, Yue Feng, Xueshan Xia

Chinese tree shrews (Tupaia belangeri) exhibit human-like CHIKV infection symptoms, including fever, swelling, and skin lesions, with sustained viral loads and tissue damage. Transcriptomic analysis showed upregulated immune-related genes, making Tupaia belangeri a valuable model for studying CHIKV and testing therapies.

See details

2026-03-22

Towards National Guidance on Dengue and Chikungunya Vaccination in Travellers: Lessons from Global Recommendations.

Journal: Travel Med Infect Dis

Authors: Anna Bogacka, Małgorzata Daniel, Agnieszka Wroczynska, Maciej Grzybek

Global dengue and chikungunya cases are rising, with increasing traveller burden. Vaccination guidelines vary; Qdenga is often restricted to those with prior dengue, while IXCHIQ use is limited due to safety concerns. Poland should prioritize vaccination for high-risk tra

See details

2026-03-14

Severe chikungunya infection in a returned traveler from Sri Lanka to Australia.

Journal: Travel Med Infect Dis

Authors: Nicholas Malcolm, Ralph Huits, Davidson H Hamer, Karin Leder, Chuan K Lim, Stephen Muhi

A 64-year-old immunocompetent Australian traveler developed severe chikungunya meningoencephalitis, thrombocytopenia, and retroperitoneal hemorrhage post-Sri Lanka trip in 2025. The strain belonged to the Indian Ocean Lineage, emphasizing the risk of severe chikungunya in returning travelers from outbreak regions.

See details

2026-03-12

Differential Expression of Defensins and Other Innate Immune Effectors by Indian Isolates of Chikungunya Virus.

Journal: J Med Virol

Authors: Sanket Kumar Ray, Jose Antony Jenish, Ashwini Ramdasi, Supriya Hundekar, Vikas Sharma, Ajit Dilip Gaikwad, Pranit Vijay Ayachit, Tharani Priya P, Ashokkumar Jayavel, Kalpana Baruah, Kalichamy Alagarasu, Kavita S Lole, Irrusappan Hari

CHIKV isolates (2006-2024) show differential internalization, replication, and innate immune response induction in epithelial cells, with CHIKV 2024 exhibiting high internalization but delayed replication. Isolates differentially induce defensins, IFN-λ, and microRNAs, wi

See details

2026-03-19

Bridging the gap: ex vivo human skin explants for mechanistic studies of arboviruses.

Journal: Curr Opin Virol

Authors: Fanny Hellhammer, Gisa Gerold, Stefanie Christine Becker

Ex vivo human skin explants preserve native architecture and immune cells, enabling natural mosquito bite transmission modeling of arboviruses, revealing early viral behavior and immune activation. Innovations like fluorescent saliva reporter mosquitoes and vascular skin

See details

2026-03-26

Maternal Chikungunya Virus Infection and Pregnancy Outcomes: A Global Systematic Review and Meta-Analysis of Vertical Transmission Dynamics and Associated Morbidity.

Journal: Emerg Microbes Infect

Authors: Yan Guo, Yujie Xiang, Mengyuan Zheng, Zhouling Pan, Yanxian Jiang, Wei Chang, Gaowen Liu, Yonghan Luo, A-Mei Zhang, Li Liu, Yuanyuan Zhang, Caifen Zhu, Jie Zhang, Yue Feng, Xueshan Xia

Maternal CHIKV infection, especially in late gestation, increases vertical transmission (18.1%) and severe perinatal complications. Adverse outcomes include abnormal fetal heart rate (44.9%), stillbirth (22.0%), and neonatal mortality (6.9%). Enhanced prenatal and postnatal surveillance is recommended in endemic regions.

See details

2026-03-30

Estimating the epidemic size of chikungunya virus infection in Guangzhou, China, from July to September 2025: a single-center cross-sectional study.

Journal: Emerg Microbes Infect

Authors: Weiguo Lu, Zihao Guo, Ka Chun Chong, Junyuan Huang, Chunke Chen, David S Hui, Shi Zhao, Chris Ka Pun Mok

This study estimates a 22% attack rate of chikungunya virus in Guangzhou, China, during a 2025 outbreak, highlighting the importance of accounting for under-reporting in disease burden assessment and vaccination planning.

See details

2026-03-26

A Portable Surface-Free Electrochemical Aptamer-Based Biosensor for Multiplex Detection of Arboviruses.

Journal: Anal Chem

Authors: Juyoung Kang, Jeongeun Park, Dong Hun Kim, Sanghyeon Park, Sowon Baek, Chang-Ki Kim, Kihyeun Kim, Jee Hwan Jang, Gyuho Yeom

This study introduces a portable, surface-free electrochemical aptamer-based biosensor for multiplex detection of DENV, CHIKV, and YFV antigens in human serum, using magnetic nanoparticles and aptamer conjugates, achieving low detection limits, high reproducibility, and 100% clinical accuracy in 30 minutes, outperforming RT-PCR.

See details

2026-03-17

Adverse Pregnancy Outcomes and Prevalence Associated With Arboviral Infections (Zika, Dengue, and Chikungunya): An Umbrella Review of Systematic Reviews and Meta-Analyses.

Journal: Rev Med Virol

Authors: Dazhi Fan, Dongxin Lin, Jiaming Rao, Congcong Guo, Li Sun, Wen Wang, Pengzhen Hu, Li Liu, Yubo Ma, Xiaoling Guo, Juan Liu

High credibility evidence links Zika to microcephaly and corpus callosum anomalies; moderate evidence supports Zika's association with neuroimaging abnormalities and Dengue with preterm birth and low birth weight. Chikungunya evidence remains limited. Improved methodological rigour and surveillance are recommended.

See details

2026-03-13

Re-emergence of chikungunya virus in the Caribbean: travel-associated cases imported from Cuba to France, 2025.

Journal: J Travel Med

Authors: Laura Pezzi, Selin Sen, Nazli Ayhan, Silvia Serrano Alvarez, Mayling Alvarez Vera, Guillaume André Durand, Gilda Grard, Vittoria Colizza, Maria Guadalupe Guzman, Xavier de Lamballerie, Raphaelle Klitting

See details

2026-03-31

The Diverse Roles of Heparan Sulfate in RNA Virus Infections: Insights From Enterovirus A71, Severe Acute Respiratory Syndrome Coronavirus 2, and Chikungunya Virus.

Journal: J Med Virol

Authors: Chun Hao Theo, I-Ching Sam, Yoke Fun Chan

HS mediates attachment for EV-A71, SARS-CoV-2, and CHIKV, with SARS-CoV-2 internalization in ACE2's absence. High HS affinity boosts in vitro infectivity but may attenuate viruses in vivo, reducing inflammation and capsid stability. HS mimetics show broad-spectrum antiviral potential.

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2026-03-27

Identification of a TCR signature in peripheral blood derived CD4+ T cells, associated with chronic chikungunya disease, suggests a conducive, female-biased, background immune profile.

Journal: Front Immunol

Authors: Koen Bartholomeeusen, Fabio Affaticati, Elisabeth Willems, Emilie Dhondt, Esther Bartholomeus, Alvino Maestri, Sowath Ly, Duong Veasna, Benson Ogunjimi, Pieter Meysman, Kris Laukens, Tineke Cantaert, Kevin K Ariën

CD4+ T cells in CCD show distinct TCR signatures, with TRAV9-2 linked to chronic disease and female bias, suggesting immune predisposition and potential biomarkers.

See details

2026-03-17

Out-of-Pocket Costs of Chikungunya in Travelers: The 2022-2023 Paraguay Outbreak.

Journal: J Travel Med

Authors: Yesim Tozan, Tyler Y Headley, Fernando Calle-Prieto, Diana Pou Ciruelo, Susana Lloveras, Sofia Elena Echazarreta, Daniel Camprubí-Ferrer, Federico G Gobbi, Davidson H Hamer, Hannah Emetulu, Marta Díaz-Menéndez, Ralph Huits

Travelers contracting chikungunya in Paraguay incurred relatively low direct medical costs but experienced substantial indirect economic losses. Productivity losses and non-refundable expenses underscore the economic toll of this illness extending well beyond immediate healthcare costs.

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Relevant news

This section presents official reports from health agencies, manufacturers and press releases with reliable sources.

2026-04-01

Call for feedback on the management of the tiger mosquito

Source: ARS

CRES hosts a conference on June 2, 2026, in Marseille, focusing on tiger mosquito health issues. Morning: expert insights on epidemic context and health authority actions. Afternoon: "flash" presentations on risk management, epidemic containment, and information campaigns, followed by Q&A.

See details

2026-03-11

Fighting arboviruses: a plenary consultation to build a strengthened territorial strategy

Source: ARS

Martinique faces recurring arbovirus epidemics due to Aedes aegypti, necessitating a coordinated strategy involving surveillance, vector control, healthcare mobilization, and public information. The PILA seminar, led by key institutions, aims to clarify roles, integrate s

See details

Clinical Studies

This section presents relevant clinical trials.

2026-01-26

A Phase I Study of PepGNP-ChikV in Healthy Volunteers

Status: Not yet recruiting

Sponsor(s): Gylden Pharma Ltd

This Phase I trial evaluates the safety and reactogenicity of PepGNP-ChikV, a novel Chikungunya peptide immunotherapy vaccine, in 40 healthy adults aged 18-60. Participants receive two doses 42 days apart, with extensive safety monitoring, including reactogenicity data collection, adverse event reporting, and long-term follow-up for 12 months post-vaccination.

See details

2025-05-27

A Safety and Immunogenicity Study of CHIKV VLP Vaccine in Children.

Status: Recruiting

Sponsor(s): Bavarian Nordic (Group)

The goal of this multi-center, randomized, double-blind, placebo-controlled study is to evaluate the safety and immunogenicity of CHIKV VLP Vaccine in children 1 to \<12 years of age.

See details

2026-03-09

An Efficacy, Safety, and Immunogenicity Study of CHIKV VLP Vaccine for the Prevention of Chikungunya Disease in Adolescents and Adults

Status: Not yet recruiting

Sponsor(s): Bavarian Nordic (Group), Walter Reed Army Institute of Research (WRAIR), Congressionally Directed Medical Research Programs, United States Department of Defense, Pharmaceutical Product Development, (PPD) LLC, Armed Forces Research Institute of Medical Services, Q-square Business Intelligence, Inc.

This study evaluates the efficacy, immunogenicity, and safety of a CHIKV VLP vaccine in adolescents and adults, using advanced analytics and infectious disease models to optimize study design and overcome challenges in assessing vaccine efficacy for chikungunya disease.

See details

2025-07-25

Real-World Study on Chinese Medicine for Treating Chikungunya Fever

Status: Recruiting

Sponsor(s): The Third Affiliated Hospital of Guangzhou University of Traditional Chinese Medicine

This real-world study evaluates Chinese medicine, alone or combined with Western medicine, for treating chikungunya fever, a mosquito-borne viral disease with no specific antiviral treatment. With recent outbreaks in China, Chinese medicine's symptom-relief and syndrome-specific approach may offer a valuable therapeutic option.

See details

2025-08-13

A Trial to Evaluate the Safety and Immunogenicity of VLA1553 in Healthy Children

Status: Withdrawn

Sponsor(s): Valneva Austria GmbH

VLA1553-322 is a multicenter, prospective, randomized, double-blind, phase 3 clinical trial evaluating VLA1553 in comparison to a comparator (Nimenrix®) for each stratum (age group). At least 3,000 male and female healthy children aged 1 to 11 years will be enrolled and randomized 3:1 to either VLA1553 (n=2,250) or comparator (Nimenrix®) (n=750).

See details

2025-11-19

Prospective Safety Cohort Study After VLA1553 Vaccination in Municipalities Selected for Participation in the VLA1553 Pilot Vaccination Strategy in Brazil

Status: Enrolling by invitation

Sponsor(s): Valneva Austria GmbH, Fundação Butantan, Coalition for Epidemic Preparedness Innovations

This is an observational study with primary data collection, which will combine a prospective safety cohort study and an SCRI study.

See details

2025-12-04

Observational Study to Assess the Effectiveness of VLA1553 Vaccine in Preventing Chikungunya During a Pilot Vaccination Strategy in Brazil

Status: Enrolling by invitation

Sponsor(s): Valneva Austria GmbH, Fundação Butantan, Coalition for Epidemic Preparedness Innovations

This is an observational, non-interventional, test-negative case-control (TNCC) study to estimate the vaccine effectiveness of VLA1553 against Chikungunya virus in a real-world setting.

See details

2025-04-15

Chikungunya Virus Detection in Semen

Status: Not yet recruiting

Sponsor(s): Hôpital Rangueil, Agence de La Biomédecine

This prospective study investigates Chikungunya virus presence and infectivity in semen, evaluating sperm preparation methods for obtaining virus-free gametes. Fifteen patients with acute infection will provide samples at multiple time points. The study aims to understand viral excretion patterns and enhance the safety of assisted reproduction during epidemics.

See details

2024-10-17

The Interest of Systematic Screening for Dengue, Chikungunya, and Zika, in Malaria-negative Return Travelers

Status: Active not recruiting

Sponsor(s): Hôpital d'Hautepierre

This study highlights the underdiagnosis of dengue, chikungunya, and zika in malaria-negative return travelers, with 78% not tested for these arboviruses, posing a risk of autochthonous transmission in France. It aims to evaluate infection rates, clinical symptoms, diagno

See details

2025-04-08

Real-world Effectiveness, Safety and Immunogenicity of Chikungunya Vaccination in Populations at Risk of Severe or Complicated Forms: Prospective Study in La Réunion

Status: Recruiting

Sponsor(s): Centre Hospitalier Universitaire de La Réunion, ANRS, Emerging Infectious Diseases, Région La Réunion, ARS La Réunion, Direction Générale de l'offre de Soins (DGOS)

This prospective study evaluates the real-world effectiveness, safety, and immunogenicity of the IXCHIQ® vaccine in at-risk populations (elderly, comorbid patients) in La Réunion during a chikungunya epidemic, aiming to inform a future cluster randomized trial.

See details

2026-02-09

VLA1553-403 Pregnancy Surveillance Study

Status: Not yet recruiting

Sponsor(s): Valneva Austria GmbH, Fundação Butantan, Coalition for Epidemic Preparedness Innovations

This observational study assesses pregnancy and infant outcomes in women exposed to the chikungunya vaccine (VLA1553) during pregnancy or preconception, compared to a matched cohort receiving routine pregnancy vaccines.

See details

2024-10-30

Trial of an Inactivated Chikungunya Virus Vaccine

Status: Completed

Sponsor(s): Najít Technologies (United States), National Institute of Allergy and Infectious Diseases (NIAID)

This Phase 1 trial evaluates the safety and reactogenicity of two dosages (2.5 mcg and 8 mcg) of an inactivated chikungunya virus vaccine (HydroVax-005 CHIKV) administered intramuscularly on Days 1 and 29 in 48 healthy adults aged 18-49. The study is randomized, placebo-controlled, and double-blind within dosing groups.

See details

2026-03-27

Using Digital Technology for the Prevention of Aedes-Borne Diseases in Colombian Communities

Status: Completed

Sponsor(s): University of Freiburg, Instituto Departamental de Salud de Norte de Santander, Universidad Francisco de Paula de Santander

A quasi-experimental study in Colombian communities evaluated a WhatsApp-based digital health strategy to prevent Aedes-borne diseases and promote protective coating in laundry tanks. Three clusters received different interventions: community strategies plus WhatsApp, com

See details

2025-09-01

Assessment of Chikungunya Virus Seroprevalence Before VLA1553 Vaccination in the Municipalities Selected for Participation in the VLA1553 Pilot Vaccination Strategy in Brazil

Status: Active not recruiting

Sponsor(s): Valneva Austria GmbH, Fundação Butantan, Coalition for Epidemic Preparedness Innovations

This is a cross-sectional serosurvey using household cluster sampling conducted before the VLA1553 pilot vaccination strategy will be implemented in about 10 municipalities in Brazil.

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Guidelines and practical information

This section lists official manuals of recommendations for clinical practice or public health policy published by leading health organizations.

HAS	**Utilisation du vaccin IXCHIQ dans le contexte épidémique de chikungunya dans les territoires de La Réunion et de Mayotte (2025)**
CDC	**Information for traveller's : Chikungunya (2024)**
WHO	**Guidelines on Clinical Management of Chikungunya Fever (2019)**
ECDC	**Guidelines for mosquito surveillance**
Ministère de la Santé et de la Prévention	**Recommandations nationales sur la prise en charge du chikungunya (Formes aiguës, formes persistantes) (2014)**
PAHO	**Preparedness and Response for Chikungunya Virus Introduction in the Americas (2011)**
WHO	**Guidelines for prevention and control of Chikungunya fever (2009)**

Fact sheets

Transmission

CHIKV is an RNA virus from the Alphavirus genus, part of the Togaviridae family, originating in Africa. The disease's name means `the one who walks bent over,` due to joint and muscle pain. There are four known clades: West African, Asian, ECSA (East/Central/South African), and IOL (Indian Ocean Lineage). The virus is mainly transmitted to humans through Aedes mosquitoes (Aedes aegypti and Aedes albopictus). Less common transmission can occur via contact with infected blood, especially in laboratory and healthcare settings (<1%). Vertical transmission from mother to child during the second trimester of pregnancy and intra-partum transmission during viremia at delivery have also been reported.

Diagnosis

For suspected cases, PCR testing should be done as soon as possible after symptoms appear (viremia lasts about 8 days). Isolated IgM antibodies require a second sample at least 10 days later to confirm seroconversion (IgG appearance). IgG presence alone does not confirm recent infection due to their prolonged persistence.

Symptoms

CHIKV infection is symptomatic in 80% of cases and typically progresses through three clinical stages: acute (day 1–21), post-acute (day 21–3 months), and chronic (beyond 3 months). Initial symptoms are non-specific (fever, headache, rash, muscle pain, and joint pain). Severe forms are more likely in patients with comorbidities, pregnant women, immunocompromised individuals, and people at extreme ages. Mortality for severe cases ranges from 0.5% to 1.3%. Chronic forms, which significantly affect quality of life, impact 20–60% of patients depending on the viral lineage and care quality.

Treatment

There is no approved specific treatment for CHIKV. Management focuses on relieving symptoms and treating rheumatologic complications.

Vaccination

IXCHIQ, developed by Valneva, is the only approved chikungunya vaccine. It is a live-attenuated vaccine given as a single intramuscular dose. It has FDA and EMA approval for individuals aged 18 and older who are not immunocompromised.