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 chikungunya case since 2014 was identified in Kourou, French Guiana. Since the confirmation of this initial case in late January, Santé publique France has reported 2,096 laboratory-confirmed cases in French Guiana. Viral circulation continues to spread and intensify throughout the territory.
- Between 2010 and 2024, no chikungunya cases were reported on Réunion Island. In 2025, however, Réunion experienced a major outbreak, with nearly 54,550 laboratory-confirmed locally acquired cases and 43 deaths. Health authorities officially declared the outbreak over on 24 June 2025. During the same period, Mayotte also experienced active virus circulation, with more than 1,200 reported cases.
- Mainland France also experienced active circulation of chikungunya virus (CHIKV), with 160 imported cases and 183 locally acquired cases reported as of 19 October 2026.

Scientific articles

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

2026-08-27

ENSO Impact on Global Chikungunya Virus Transmission, 2008-2024: A Multi-Country Distributed-Lag Time-Series Analysis.

Journal: Viruses

Authors: Shi-Hui Shan, Long-Tao Chen, Wen-Qi Xie, Chen-Long Lv, Dong Jiang, Fang-Yu Ding, Gang Dong, Li-Qun Fang

El Niño increases chikungunya risk after a 2-year lag (CRR 1.40), while La Niña suppresses it (CRR 0.09), primarily via temperature teleconnections. Climate change amplifies El Niño-driven excess cases, especially under SSP2-4.5. ENSO’s asymmetric, spatially heterogeneous

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2026-08-20

Molecular basis for chikungunya virus recognition of a mosquito-specific receptor.

Journal: bioRxiv

Authors: Xiaoyi Fan, Wanyu Li, Jesse S Plung, Jessica A Plante, Ellie M Hajovsky, Nisha Tapryal, Jennifer Diaz, Nicholas C Hazell, Chenggong Ji, Zhiqi Liu, Catherine E Hammond, Scott C Weaver, Kenneth S Plante, Jonathan Abraham

High-resolution cryo-EM structures reveal conserved E2-E1 glycoprotein surfaces in CHIKV, SFV, and MIDV that bind mosquito-specific Lachesin domain 1, despite genetic divergence. A soluble Lachesin decoy blocks viral entry into mammalian cells and protects mice from infec

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2026-09-14

Chronic chikungunya is associated with decreased anti-CHIKV antibody titers, neutralizing capacity, and antibody-dependent cellular cytotoxicity.

Journal: iScience

Authors: Vinit Upasani, Sokchea Lay, Sievleang Heng, Alvino Maestri, Sreymom Ken, Sopheak Sorn, Rithea Leang, Sowath Ly, Veasna Duong, Tineke Cantaert

Chronic chikungunya is linked to lower anti-CHIKV IgG/IgM titers and reduced ADCC at 6 months post-infection, while ADCP and ADCD remain unchanged. ADNKA is unaffected. Females show higher E2 antibodies and ADCP. Impaired ADCC may contribute to persistent arthralgia.

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2026-09-26

Evaluation of the Novaplex TM Tropical Fever Virus Assay.

Journal: Int J Mol Sci

Authors: Giuseppe Sberna, Francesca Colavita, Maria Beatrice Valli, Fabiano Brillo, Fabrizio Carletti, Silvia Meschi, Cosmina Mija, Claudia Minosse, Valentina Valeriani, Gabriella Rozera, Giulia Berno, Flavia Smoquina, Lavinia Fabeni, Fabrizio Maggi, Eleonora Lalle

The Novaplex™ Tropical Fever Virus Assay demonstrated variable LODs (2.04–4.79 Log copies/mL in spiked samples) for DENV, ZIKV, CHIKV, and WNV, with no cross-reactivity to Usutu virus. Retrospective testing of 34 clinical specimens showed high agreement with singleplex as

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2026-08-11

A nanoluciferase-expressing attenuated CHIKV vaccine strain enables rapid and visual drug screening in vitro and in vivo.

Journal: J Virol

Authors: Mengyuan Zheng, Zhouling Pan, Yanxian Jiang, Yan Guo, Wei Chang, Hailin Tang, Xiao Chen, Yujie Xiang, Xue Wang, Zihao Wang, Ranran Chang, Li Liu, Ping Zhao, Yue Feng, Xueshan Xia

A BSL-2-safe, replication-competent CHIKV reporter virus (CHIKV-ΔnsP3-Nluc) was engineered by inserting Nano-luciferase into the VLA1553 vaccine strain. It enables real-time monitoring of viral replication with strong correlation to viral titer (R^2=0.9689) and in vivo bio

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2026-09-26

Advancing Chikungunya Prevention and Vaccination in Mexico: A Position Paper by the Immunization Committee of the Mexican Association of Pediatric Infectious Diseases.

Journal: Vaccines (Basel)

Authors: Jorge A Vázquez-Narváez, Martha Avilés-Robles, Carmen Espinosa-Sotero, Cesar Adrián Martínez-Longoria, Sarbelio Moreno-Espinosa, Monica L Reyes-Berlanga, Enrique Chacon-Cruz

Chikungunya virus (CHIKV), transmitted by Aedes mosquitoes, causes acute febrile illness with severe polyarthralgia and potential chronic arthritis. This position paper reviews epidemiology, immunopathogenesis, diagnosis, and prevention, emphasizing vaccine development an

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2026-09-13

Natural-killer-cell-mediated antibody-dependent cellular cytotoxicity response in acute and recovery phases of chikungunya.

Journal: Virology

Authors: Diptee Trimbake, Mohini Ganu, Ashok Ganu, Anuradha S Tripathy

NK cell-mediated ADCC is active in acute chikungunya and persists in recovered individuals (3 mo–18 yr), declining in chronic arthritis. ADCC inversely correlates with viral load in acute phase and positively with anti-CHIKV IgG and IgG3 in recovered individuals, highligh

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2026-08-27

Metabolic Signatures of Chikungunya Versus Dengue: A Comparative Study.

Journal: Viruses

Authors: Yuqiu Liu, Meiyi Li, Huili Chen, Xi Liu

Metabolomic profiling of plasma from chikungunya (CHIKF) and dengue (DF) patients revealed distinct metabolic signatures. CHIKF patients showed higher rash and joint involvement, while DF patients had prolonged fever and hematological abnormalities. Dysregulated metabolit

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2026-09-15

Solanaceae-Derived Spirostane Saponins Inhibit Dengue Virus Replication and Viral Protein Expression and Exhibit Activity Against Multiple Arboviruses.

Journal: Drug Dev Res

Authors: Erika Vanessa Jimenez-Posada, Oscar Marino Mosquera-Martínez, Sara M Robledo, Diego Durango, Wiston Quiñones, Samuel Vizcaíno-Páez, Marlen Martinez-Gutierrez

Solanaceae-derived spirostane saponins inhibit DENV-2 replication and viral protein expression in Vero cells, reducing RNA, NS1/NS3, and infectious titers. Active against ZIKV and CHIKV, they target intracellular replication, with docking suggesting interactions with NS5

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2026-09-26

Pediatric Arboviral Infections in Europe: Epidemiology, Clinical Features, Diagnosis and Prevention.

Journal: Viruses

Authors: Giulia Sturniolo, Silvia Garattini, Denis Doni, Marco Zacchello, Diletta Zanetti, Sofia Galzignato, Andrea Lo Vecchio, Vincenzo Baldo, Daniele Donà

Arboviral infections (WNV, DENV, CHIKV, ZIKV, OROV) increasingly affect children in Europe, with rising imported and autochthonous cases due to vector expansion and travel. Pediatric cases are underrecognized but can cause severe outcomes, including neuroinvasive disease

See details

2026-10-16

What a highly monitored chikungunya epidemic reveals about preparedness for Europe and beyond

Journal:

Authors:

This commentary on the 2024–2025 Réunion chikungunya epidemic highlights the gap between advanced surveillance and timely public-health action, with rapid epidemic growth placing substantial pressure on primary care. Challenges in emergency vaccine deployment underscore the need for anticipatory preparedness integrating surveillance, vaccination, vector control and research, with implications for Europe and other at-risk regions.

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Relevant news

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

2026-10-22

Chikungunya : deux vaccins au calendrier vaccinal et un accès facilité à la vaccination

Source: ARS

Amid ongoing chikungunya transmission in French Guiana, Vimkunya and Ixchiq have been incorporated into the overseas vaccination schedule, with prescribing and administration expanded to trained pharmacists, nurses and midwives for eligible individuals aged 12 years and older. Priority groups include older adults and patients with comorbidities; vaccine selection remains dependent on age, clinical status and current recommendations.

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2026-10-20

Epidemiological Update: Dengue and Chikungunya in the Americas Region - 20 October 2026

Source: PAHO

PAHO reports rising dengue activity and renewed chikungunya transmission across parts of the Americas, including areas without circulation for several years. Anticipated El Niño intensification and the approaching South American transmission season reinforce the need for integrated epidemiological, virological and entomological surveillance, strengthened diagnostics, timely clinical management and coordinated vector control.

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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

Phase I study evaluating safety and reactogenicity of PepGNP-ChikV, a novel Chikungunya peptide vaccine, in 40 healthy adults (18–60 years) across four dose cohorts. Participants receive two vaccinations 42 days apart, with safety monitoring for up to 12 months. Screening

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: 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 field study (EBSI-CV-317-007) evaluates the efficacy, immunogenicity, and safety of a CHIKV VLP vaccine in adolescents and adults. Utilizing infectious disease models and advanced analytics, the study optimizes site selection, timing, and design to align with local chikungunya epidemiology, addressing challenges in efficacy assessment for this vaccine.

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2026-04-17

A Seamless Phase II/III, Observer-blind, to Evaluate Immunogenicity and Safety of Chikungunya Virus Vaccine in Healthy Subjects 12-65Years of Age.

Status: Recruiting

Sponsor(s): Bharat Biotech

A Seamless Phase II/III, Observer-blind, Multi-centre, Randomized Clinical Trial to Evaluate Immunogenicity and Safety of BBV87, an Inactivated Chikungunya Virus Vaccine in Healthy Subjects 12-65 Years of Age

See details

2026-01-14

Risk Assessment of Community Spread of Multiple Endemic Infectious Diseases in a One Health Perspective

Status: Recruiting

Sponsor(s): Institut Pasteur du Cambodge, Institut Pasteur, CDC - Ministry of Health of Cambodia, UMR ASTRE (CIRAD), Malaria Consortium, Ministry of Agriculture, Forestry and Fisheries Cambodia

RACSMEI employs a One Health approach to assess community transmission of 57 priority infectious diseases in Cambodia, integrating surveillance, multiplex diagnostics, social science, and mathematical modeling to inform targeted, culturally appropriate interventions and support precision public health strategies in low-resource settings.

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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, Butantan Foundation, 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.

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2025-11-19

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

Status: Active not recruiting

Sponsor(s): Valneva Austria GmbH, Butantan Foundation, 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.

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2026-04-04

EFFECT OF TRANSCUTANEOUS ELECTRONEURO-STIMULATION OF THE VAGUS NERVE ON JOINT PAIN SEQUELAE OF CHIKUNGUNYA FEVER IN THE LOWER LIMBS

Status: Active not recruiting

Sponsor(s): Federal University of Pernambuco

This randomized, double-blind, three-arm trial evaluates transcutaneous auricular vagus nerve stimulation (taVNS) versus TENS and sham for chronic lower limb joint pain post-Chikungunya. Six 30-minute sessions over three weeks assess pain reduction (primary: VAS) and seco

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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 Colombia evaluated a WhatsApp-based digital health intervention to enhance Aedes-borne disease prevention by promoting protective coating in laundry tanks. Three clusters received: WhatsApp + community strategies, community strategies only, o

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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 a live-attenuated vaccine administered as a single intramuscular dose and authorized for adults aged 18 years and older, excluding immunocompromised individuals. In April 2025, the French National Authority for Health (HAS) suspended its use in individuals aged 65 years and older following reports of serious adverse events. VIMKUNYA®, developed by Bavarian Nordic, is a subunit vaccine authorized for individuals aged 12 years and older, with a good immune response and lower reactogenicity. The HAS recommends prioritizing vaccination for older adults and individuals with comorbidities, depending on the vaccine and the epidemiological context.