

**Must-
Have!**
On Campus

Infection

HAND
BOOK

Infectious Diseases & Campus Life

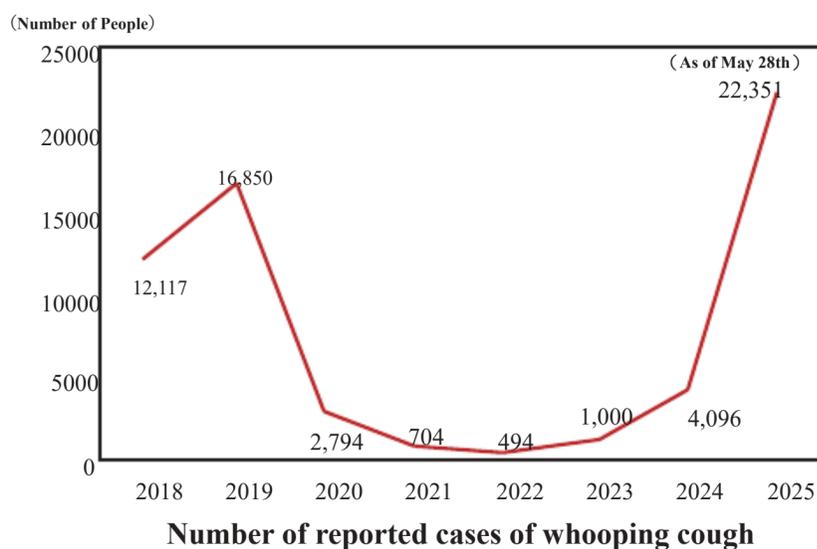


Beware of the whooping cough epidemic!

The whooping cough (Pertussis) epidemic continues

A whooping cough epidemic occurred worldwide from 2024 to 2025, and the number of patients has continued to increase since then.

Whooping cough is an acute respiratory infection caused primarily by *Bordetella pertussis* and characterized by severe coughing attacks. Due to the COVID-19 pandemic and strengthened infection control measures against respiratory infections, the number of reported cases decreased from 2020 to 2022. However, as measures were relaxed, the number of reported cases began to increase again from 2023, and an unprecedented surge was observed from 2024 to 2025. The number of reported cases of whooping cough in Japan was 4,096 in 2024, but as of May 28, 2025, the cumulative number of reported cases had reached 22,351, more than five times the number of reported cases in less than six months from the previous year. Since then, the number of reported cases has continued to break the record since 2018, when reporting of all cases as a notifiable disease began.



It's important not to spread it to others

Whooping cough can cause severe symptoms such as intense coughing in young people like university students, but it is extremely rare for it to be fatal. However, in infants and the elderly, the disease can become severe and even fatal. Therefore, if you have whooping cough, it is extremely important to absolutely not spread it to others, especially infants and the elderly. If you have a severe cough but no high fever like the flu, consider the possibility of whooping cough and visit a respiratory specialist or other medical institution as soon as possible to receive a diagnosis.

Is it okay if I get the vaccine?

Vaccinations against whooping cough began in Japan in 1950, with the introduction of a trivalent vaccine (DPT: diphtheria, whooping cough, and tetanus) in 1968 and an improved DTaP vaccine in 1981. These have been administered as routine vaccinations (a quadrivalent vaccine, including inactivated polio vaccine, was introduced in 2012, and a pentavalent vaccine, including *Haemophilus influenzae* type b (Hib) vaccine, was introduced in 2024). However, the effectiveness of the vaccine can fade over time, and the effectiveness of the vaccine against whooping cough is said to last for about 5 to 10 years. Many people of your age received DTaP in their early childhood, but if a long period of time passes without actual exposure to whooping cough bacteria, the vaccine is thought to lose most of its effectiveness. The Japan Pediatric Society recommends booster vaccinations for DTaP at ages 5-6 before entering school and at ages 11-12, but these are currently optional vaccinations, and it is hoped that they will become routine vaccinations in the future.

Basic knowledge of HIV/AIDS

AIDS Trends Committee
"2024 AIDS Trends
Annual Report (January 1 -
December 31)"



UNAIDS
[GLOBAL AIDS
UPDATE 2024]



The risk of contracting the AIDS virus (HIV) is still there.

The number of new HIV infections in Japan in 2024 was 662, roughly unchanged from the previous year (669). Of these, 63% were transmitted through homosexual contact. Heterosexual contact accounted for 16%. Additionally, the number of new AIDS cases in 2024 was 332, an increase from the previous year (291). The combined number of people infected with HIV and those who developed AIDS continued to increase from the previous year.

In 2024, an estimated 1.3 million people worldwide will be newly infected with HIV. Twenty years ago, new HIV infections exceeded 2.5 million per year, making the AIDS pandemic seem unstoppable. Thanks to global efforts, this number has been slowly declining. However, "the sudden withdrawal of funding by a country that has been the largest contributor to the global HIV response has caused major disruptions to treatment and prevention programs around the world in the first half of 2025."



What to do if you suspect you may have been infected

Consult with College Health Center

The contents of the consultation will be kept confidential.

If you think you may have been infected with a sexually transmitted disease, including AIDS, you don't have to worry about it alone; you can go to your university's health center and ask for advice.

Of course, all consultations will be kept confidential, and we will provide you with appropriate advice that takes into consideration your academic and lifestyle circumstances.

Get tested at a public health center

Free of charge and anonymously at any center across the country.

If you are concerned about infection, be brave and get tested, so that you can start treatment early and prevent the onset of AIDS. Tests can be done free of charge and anonymously at any public health center across the country. All you need to do to get tested is take 5cc of blood.

Testing may be available on specific days and times, so be sure to call ahead before going. You don't need to reveal your name or address. They may also offer tests for other sexually transmitted diseases. Call ahead to inquire.

Get tested after 2 months!

Accurate testing cannot be performed until two months have passed since the time of infection.

Public health center tests first check for the presence of HIV antibodies. However, since it takes 4 to 8 weeks for antibodies to develop after infection, tests conducted during this period (called the window period) will not produce accurate results.

Wait at least two months after any chance of exposure before getting tested.

It's outrageous to try to get tested by donating blood

Blood donation is about providing safe blood.

If you are concerned about infection, it is not permissible to donate blood to test for it. If you are infected but within the window period, your blood will be used as uninfected blood, which could lead to new infections.

Donating blood is for the sole purpose of providing safe blood, not for HIV testing. Furthermore, test results will not be disclosed to the donor.

The test has great benefits

If treatment is started early, the AIDS virus in the body will decrease dramatically.

Even if a test reveals that you are infected, if you start treatment early, you can protect your life from the threat of AIDS, and since treatment will dramatically reduce the AIDS virus in your body, you can reduce the risk of infecting your partner to almost zero. For your own sake and to prevent the spread of infection, please go ahead and get tested.



HIV attack and proliferation

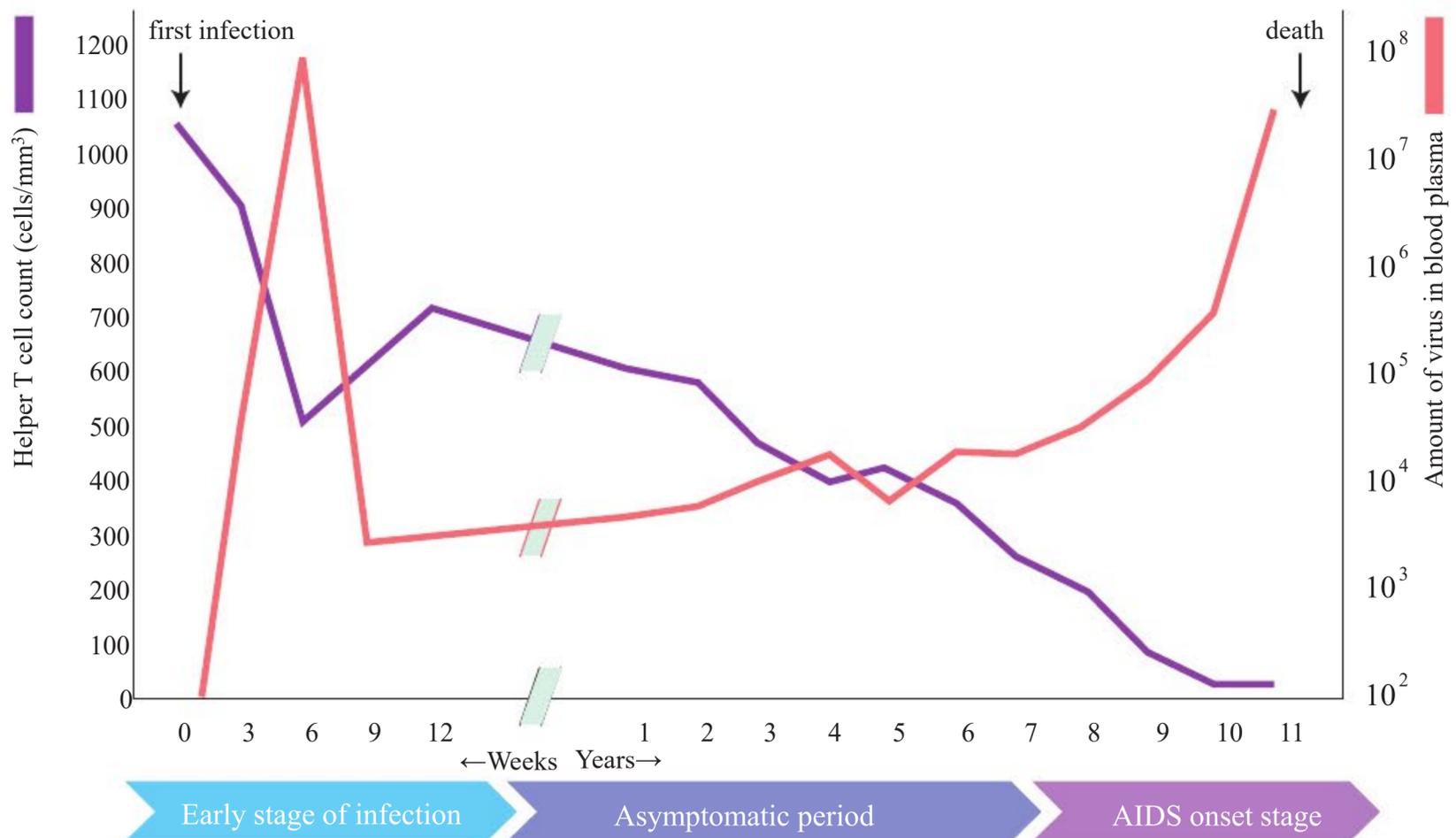
If you are infected with HIV, your immune system will be weakened and you will be at great risk!

HIV infection/AIDS is a disease that gradually destroys the human immune system, causing it to stop working. HIV (the AIDS virus) enters the body through blood or semen and destroys helper T cells, which play a central role in the immune system.

HIV sneaks into the genetic information of helper T cells, and as soon as the helper T cells begin to function, it multiplies, destroys the helper T cells, and then attaches itself to other helper T cells.

This slowly destroys the immune system.

If you are infected with HIV: Natural history of AIDS (in the absence of treatment)



Early infection (acute phase) (0-3 months)

If HIV is transmitted through unprotected sex, cold-like symptoms appear within 3 to 6 weeks. Also, HIV-infected helper T cells release large amounts of HIV into the body, causing a rapid decline in the number of helper T cells, which is currently 1,000 per cubic millimeter of blood.

Eventually, the number of helper T cells will recover slightly and the patient will enter an asymptomatic phase.

For 4 to 8 weeks after infection, antibodies against HIV are not produced, so the amount of HIV increases. This results in a state where HIV is highly transmissible to others.

Asymptomatic period

After about 12 weeks of infection, an immune response to HIV begins, causing the amount of HIV in the blood to decrease, and the person becomes asymptomatic, appearing almost identical to a healthy person. If the infection is unknown and untreated, this period lasts for about 10 years, but it can be even shorter. During this time, HIV is still produced in the body, and it is possible to transmit HIV to others. Furthermore, during this time, number of helper T cells in the blood continue to decline gradually and steadily.

AIDS onset stage

When the number of helper T cells falls below 200 per microliter of blood, patients begin to experience slight fever and fatigue. Furthermore, as the immune system begins to fail, the amount of HIV in the blood increases, increasing the patient's ability to transmit HIV to others. Eventually, patients develop opportunistic infections* such as Pneumocystis pneumonia and cytomegalovirus retinitis, as well as malignant tumors such as Kaposi's sarcoma and malignant lymphoma, eventually leading to death. The natural course of AIDS is said to be about 10 to 12 years from infection to onset of the disease and death, but treatment is significantly extending the time to onset of the disease and the time to death.

*Opportunistic infections

An infectious disease caused by a weakly pathogenic microorganism that normally does not develop but occurs when the immune system is weakened.

Protect your partner from Sexually Transmitted Diseases!



For Men



① The most common chlamydia infection

Most cases are asymptomatic, but men may experience a clear, whitish discharge from the genitals and pain or itching during urination. In such cases, chlamydia infection may be suspected.

● Examination and treatment

Men should visit a urologist. A diagnosis can sometimes be made through a medical interview and physical examination, but urine tests and urethral mucosal cell samples may also be required.

Treatment typically involves taking antibiotics for 14 consecutive days.

② Gonorrhea is easy to notice because it causes symptoms quickly.

When gonorrhea infects the male genitals, after an incubation period of 3 to 7 days, the man will experience mild itching and a burning sensation in the urethra, and first mucus, then a cloudy white discharge from the urethral opening, and he will also experience a burning sensation and pain in the genitals.

● Examination and treatment

A sample will be taken from the urethra to check for the presence of gonorrhea. Urine tests may also be performed.

Treatment involves oral or injected antibiotics, and the condition will usually be cured within two weeks, with the condition no longer infectious. However, if you stop going to the hospital or taking medication on your own even after the symptoms have disappeared, the condition may recur or become chronic, so it's best to have your doctor determine whether you've been cured.

③ The pesky case of genital herpes

Herpes is transmitted when a partner's vaginal secretions contain the herpes virus. Once infected, it is a troublesome sexually transmitted disease with a high chance of recurrence. With primary infection, small blisters appear on the foreskin and glans penis about a week after infection, which then rupture and turn into shallow ulcers. The patient then experiences severe pain, fever, headache, and fatigue. These symptoms last for about three weeks. The virus then lies dormant in the nerves, and recurrences occur repeatedly, triggered by trauma, fever, sex, mental stress, etc.

● Examination and treatment

This can be detected through a blood test. Antiviral medications are effective, but they only temporarily relieve symptoms and do not completely eliminate the herpes virus from the body, nor do they reduce the frequency or severity of recurrences. It is important to be aware of recurrences and prevent infection to others.

④ Let your partner know and get treatment at the same time.

Because men are more likely to experience symptoms and to confirm infection, if you are diagnosed with a sexually transmitted disease, you should inform your partner and encourage them to seek medical advice. This is necessary to protect your partner and prevent the spread of infection. (For women, see ④ on page 5.)

COLUMN

Syphilis is on the rise

Syphilis is transmitted through direct mucosal contact with an infected person. Approximately three weeks after infection, hard lumps develop in the genitals, mouth, or other areas of contact, developing into ulcers, and swollen lymph nodes in the groin. Three months later, a red rash appears on the face, chest, abdomen, vulva, and palms. Early treatment will result in complete recovery, but if left untreated, serious complications can occur in the brain and heart over the course of 10 years. If you have concerns, consult a health care center or get tested at a medical institution or public health center.

**Men are more likely to notice abnormalities.
Let your partner know and get treatment at
the same time!**



For Women



① How to detect chlamydia infection

Even if symptoms are present, they are usually mild and often go unnoticed. Therefore, if you are sexually active and have the opportunity to visit a gynecologist, you should be tested for chlamydia infection. Public health centers may also test you for chlamydia when you get tested for HIV/AIDS.

● Examination and treatment

The test involves scraping the cervix and taking a sample for examination.

Treatment is the same as for men (see page 4, item 1).

② Gonorrhea can also be transmitted through oral sex.

Gonorrhea infects not only the genital mucosa but also the oral and rectal mucosa, so it can be transmitted not only through vaginal intercourse but also through oral and anal sex. Anywhere there is mucous membrane, gonorrhea can infect. If a woman is infected with the genitals, she will feel something strange in her urethra a few days later, but because the symptoms are milder than in men, they often go unnoticed. Also, if gonorrhea causes cystitis, you may have to go to the toilet more frequently and experience pain when urinating.

● Examination and treatment

Samples are taken from the vagina and cervix to check for the presence of gonorrhea. Urine tests may also be performed.

Treatment is the same as for men (see page 4, item ②).

③ Genital herpes is a sexually transmitted disease that recurs repeatedly.

Herpes is transmitted through sexual contact when a partner's semen contains the herpes virus. Once infected, it's a troublesome sexually transmitted disease with a high chance of recurrence. With primary infection, small blisters appear on the vulva about a week after infection, which then break down into shallow ulcers. The patient then experiences severe pain, fever, headache, and fatigue. These symptoms last for about three weeks. The virus then lies dormant in the nerves, and recurrences occur repeatedly, triggered by trauma, fever, menstruation, sex, or emotional stress.

● Examination and treatment

This is the same as for men (see page 4, item ③).

④ Even if the symptoms are mild, you should not ignore them.

If an STD is left untreated, it can cause inflammation in the uterus, fallopian tubes, and ovaries, leading to infertility and a higher risk of miscarriage or ectopic pregnancy if a woman becomes pregnant. Furthermore, if a woman with an STD becomes pregnant and gives birth, the infection can be transmitted to her child. It can also cause life-threatening conditions such as severe pneumonia, eye disease, and brain damage.

COLUMN

Syphilis is on the rise

The disease progresses in women in the same way as in men. Furthermore, if a pregnant woman becomes infected, the infection can be passed to the baby through the placenta, causing stillbirth, premature birth, and neonatal death. Since this is no longer just a personal problem, prevention, early detection, and early treatment are essential. Using condoms is an effective way to prevent this. If you have any concerns, consult a health care center or get tested at a medical institution or public health center.

Be aware that women tend to be less likely to notice symptoms!

Protect your partner from Sexually Transmitted Diseases!



The pill does not protect against sexually transmitted diseases

Do you believe that the pill (oral contraceptive) can prevent sexually transmitted diseases, including AIDS? That's a complete misunderstanding. The pill is merely a form of contraception and provides no protection against sexually transmitted diseases, including AIDS. Viruses and bacteria that cause sexually transmitted diseases are transmitted through mucous membranes such as the genitals and mouth, as well as semen and vaginal secretions. The pill, which does not prevent such physical contact, is not effective in preventing sexually transmitted diseases.

Condoms are effective in preventing sexually transmitted diseases by preventing physical contact of semen and vaginal secretions with mucous membranes. They also serve as a form of contraception by trapping sperm during ejaculation and preventing them from entering the woman's vagina.

However, to achieve this effect, condoms must be worn from the beginning of sex. Also, if you don't deflate the tip and fit it firmly against the male genitals, they may tear or fall off during intercourse. Refer to the diagram below to ensure proper wearing and maximize the benefits of condoms.

How to use a condom



● Let the air out of the tip before wearing it. If air is still inside, it may burst under pressure.



● Press firmly with your hand to attach it all the way to the base.



● After ejaculation, quickly remove the penis while holding the base to prevent it from coming off.



● Vaseline and oils can damage condoms. If you need a lubricant, use a water-based one.



● Observe the expiration date. Store it in a hard case, not in a wallet.



Syphilis is on the rise

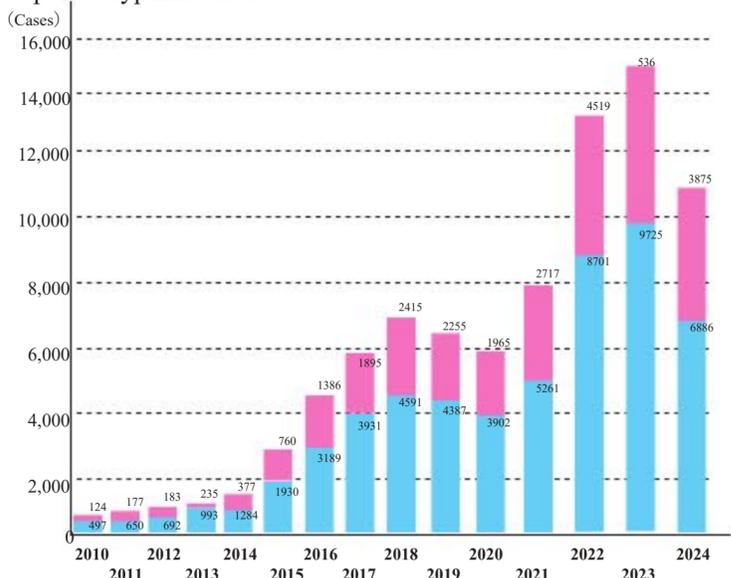
It is transmitted through sexual contact (including oral and anal sex) and through contact with the mucous membranes of the mouth and genitals or the skin.

Syphilis has been resurging in several countries since around 1990. In Japan, cases have been increasing since around 2011, with a particularly large increase since 2021. Furthermore, the number of cases is rapidly increasing among women in their 20s.

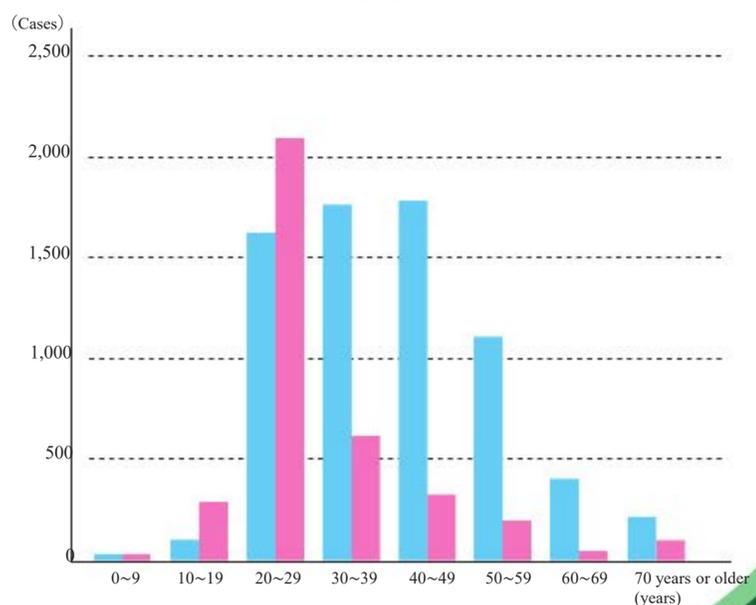
Proper use of condoms reduces the risk of infection.

If you have symptoms or are concerned, get tested early. Early treatment can lead to a cure.

■ Changes in the number of reported syphilis cases



■ Syphilis cases reported by age group (2024)



Created based on the number of reported sexually transmitted diseases by the Ministry of Health, Labor and Welfare

Measures against infectious diseases overseas

Infectious diseases to watch out for when traveling abroad

Route	Infection	Main symptoms	High risk areas	Vaccination
● Drinking water and food	Cholera	Diarrhea and vomiting, dehydration.	Asia, Africa	Yes
	Bacterial dysentery	Fever, left lower abdominal pain, diarrhea and viscous bloody stools.	Areas with poor sanitary conditions	—
	Typhoid fever	High fever, rather slow pulsation, rose rash.	Asia, Africa, Latin America	Yes
	Hepatitis A	Coldlike symptoms followed by jaundice and malaise.	Asia, Eastern Europe, Africa, Latin America	Yes
	Hepatitis E	Similar symptoms to hepatitis A, but more severe.	Asia, North Africa, Mexico	—
● Insects and animals * The second line is the name of the vector insect/animal.	Malaria	Fever, myalgia, headache with chills. <i>Anopheles mosquito</i>	Asia, Oceania, Africa, Latin America	—
	Yellow fever	Chills with fever, headache, jaundice, bloody stools, vomiting blood. <i>Aedes aegypti mosquito</i>	Latin America, Africa	Yes
	Dengue fever	Sudden fever, headache, orbital pain, muscle pain, rash. <i>Aedes aegypti, Aedes albopictus mosquito</i>	Southeast Asia, Western Pacific, Africa, Central and South America, Eastern Mediterranean	—
	Chikungunya fever	Fever, joint pain, rash. <i>Aedes aegypti, Aedes albopictus mosquito</i>	Asia, Africa, Latin America	—
	Zika virus infection	Mild fever, rash, conjunctivitis, muscle and joint pain, malaise, headache. <i>Aedes aegypti, Aedes albopictus mosquito</i>	Central and South America, Caribbean Islands, Africa, Southeast Asia, Pacific Islands	—
	West Nile fever	Most are asymptomatic, symptoms include sudden high fever. <i>Culex pipiens, Aedes albopictus mosquito</i>	Africa, Middle East, Central and West Asia, Europe, Russian Far East, North America	—
	Japanese encephalitis	Fever, headache, vomiting, disturbed consciousness. <i>Culex pipiens mosquito</i>	Asia, Western Pacific	Yes
	Plague (Bubonic plague)	Swollen and sore lymph nodes, hemorrhagic skin spots, high fever. Fleas parasitic on rodents such as squirrels and mice	Asia, Western Pacific	—
	Rabies	Fever, dysesthesia at bite wounds, hypersensitivity to water, wind, and light, confusion. Dogs, raccoons, foxes, bats, etc.	All over the world except for Japan, UK, Australia, New Zealand, Sweden, etc.	Yes
	Hanta virus pulmonary syndrome	Fever, myalgia, progressive dyspnea. Rodents	Southwestern United States, Canada, Central and South America	—
	Avian influenza (Bird flu)	Fever, cough, dyspnea. Chicken, duck, goose	Southeast Asia, China, Egypt, etc.	—
Middle east respiratory syndrome	Fever, cough, shortness of breath. Camel	Areas inhabited by dromedaries in the Middle East	—	
● Water and soil	Tetanus	Difficulty opening the mouth, defecation and urination disorders, muscle stiffness of the whole body.	Asia, Africa, South America	Yes
	Coccidioidomycosis	Common cold/pneumonia symptoms, erythema, ulceration from wounds.	Southwestern United States, Central and South America	—
● Blood and body fluids	Ebola virus disease	High fever, vomiting, diarrhea, bleeding gums and nose.	Africa	—
	CrimeanCongo hemorrhagic fever	Similar to Ebola virus disease.	Africa, Asia, Middle East, Eastern Europe	—
	Marburg virus disease	Similar to Ebola virus disease.	Sub-Saharan Africa	—
● Sexual activity	AIDS	Occurs as an opportunistic infection after a long incubation period.		—
	Syphilis	Lumps in the genitals, swollen lymph nodes, ulcers, rashes.		—
	Gonorrhea	Pain when urinating, urethral sores, pus.		—
	Chlamydia	No subjective symptoms, mild urination pain, discomfort, etc.		—
	Genital herpes	Itching and pain in the vulva, blisters burst and ulcers.		—
	Hepatitis B	Symptoms similar to hepatitis A. Beware of chronicity.		Yes
	Empox	Fever, headache, swollen lymph nodes, muscle pain, rash.	Central Africa, North and South America, Europe	Yes

* Vaccination column: "Yes" means that you can get vaccinated before departure.



Caution ① Do not drink raw **water**

In countries with poor sanitary conditions, tap water may also be contaminated with microorganisms, so do not drink it straight. Sterilize by boiling before drinking, or purchase bottled mineral water with a tight stopper. Recently, there have been cases of counterfeit mineral water being sold, so be sure to purchase it at supermarkets and convenience stores. It is also a good idea to choose gasfilled mineral water, which is difficult to fake. Be aware that the water in the jug at the hotel or the water at the restaurant may be tap water. Do not eat ice as it may also be made from unsafe water. The same goes for iced water, juice, popsicles, and ice cream.

● How to sterilize

If mineral water is not available in the field, etc., boil clear, clear water for at least 1 minute, then turn off the heat and let it sit for 23 minutes. This will kill most bacteria and viruses. When you go to a place where you can't boil water, take a commercially available disinfectant for drinking water (sodium hypochlorite, chlorine dioxide, etc.) and an outdoor filter and disinfect in two stages.

Caution ② Avoid dangerous **foods**

Regarding food, just like water, in countries where the sanitary environment is not good, it is necessary to be prepared for the possibility that it may be contaminated with microorganisms. Eat in places that are as sanitary as possible, such as hotels and cafeterias for foreigners. Let's eat something hot enough there. Avoid foods that have been boiled and cooled for a long time, salads, cut fruits, meat and fish that have not been thoroughly cooked. It is safer to avoid street food. It seems that the heat is passing through the stalls, but the inside may be raw.

Dairy products can be contaminated with pathogens, so be careful. Always boil milk before drinking. Avoid adding raw milk to coffee or tea.

Caution ③ Full measures against **mosquitoes**

Malaria is one of the three major infectious diseases in the world and is transmitted by mosquitoes called *Anopheles* mosquitoes. In addition, mosquitoes such as *Aedes aegypti* carry dengue fever, and preventing mosquito bites has an important meaning as a countermeasure against infectious diseases. To do this, wear longsleeved shirts and long pants when going out at night. Then apply insect repellent to exposed areas of clothing or spray insect repellent on clothing. Insect repellents paralyze the sensory organs of insects and make them unrecognizable to prey, so spraying them on your clothes is also effective.

Indoors, light mosquito coils before going to bed. Mosquito repellents like mats are also effective. In malaria-endemic areas, hanging mosquito nets is also an effective method of repellent.

When traveling to endemic areas, it is recommended that you take antimalarial medication as a preventative measure. Consult with a specialist in advance about your health condition and destination, and be sure to take the medication as directed. Even in this case, mosquito repellent measures are necessary.

● Be careful with animals

Be careful not to carelessly touch animals overseas as they may carry zoonotic diseases.

Avian influenza is a disease with a high possibility of death due to symptoms such as high fever and cough, followed by dyspnea and systemic organ damage. It is spread by contact with infected birds or by breathing dust from bird droppings containing the virus. In affected countries, avoid going to places where birds are in abundance, such as bird markets, farms, and slaughterhouses.

Rabies is transmitted not only from dogs but also from wild animals such as raccoons and bats, and 100% of people who develop rabies die. It is important to stay away from animals, including pets and livestock, in endemic areas. If you are bitten, immediately wash the wound with running water and soap, disinfect it, and immediately go to the hospital for vaccination. After that, vaccination can be continued to prevent the onset of disease.

Plague is a disease transmitted through fleas that parasitize rodents such as squirrels and mice in high-risk areas. Feeding or handling rodents is dangerous in these areas. Plague is a deadly disease if not treated early and appropriately.

Make sure you take basic precautions!

[Reference] Ministry of Health, Labor and Welfare Quarantine Station FORTH - Staying healthy overseas



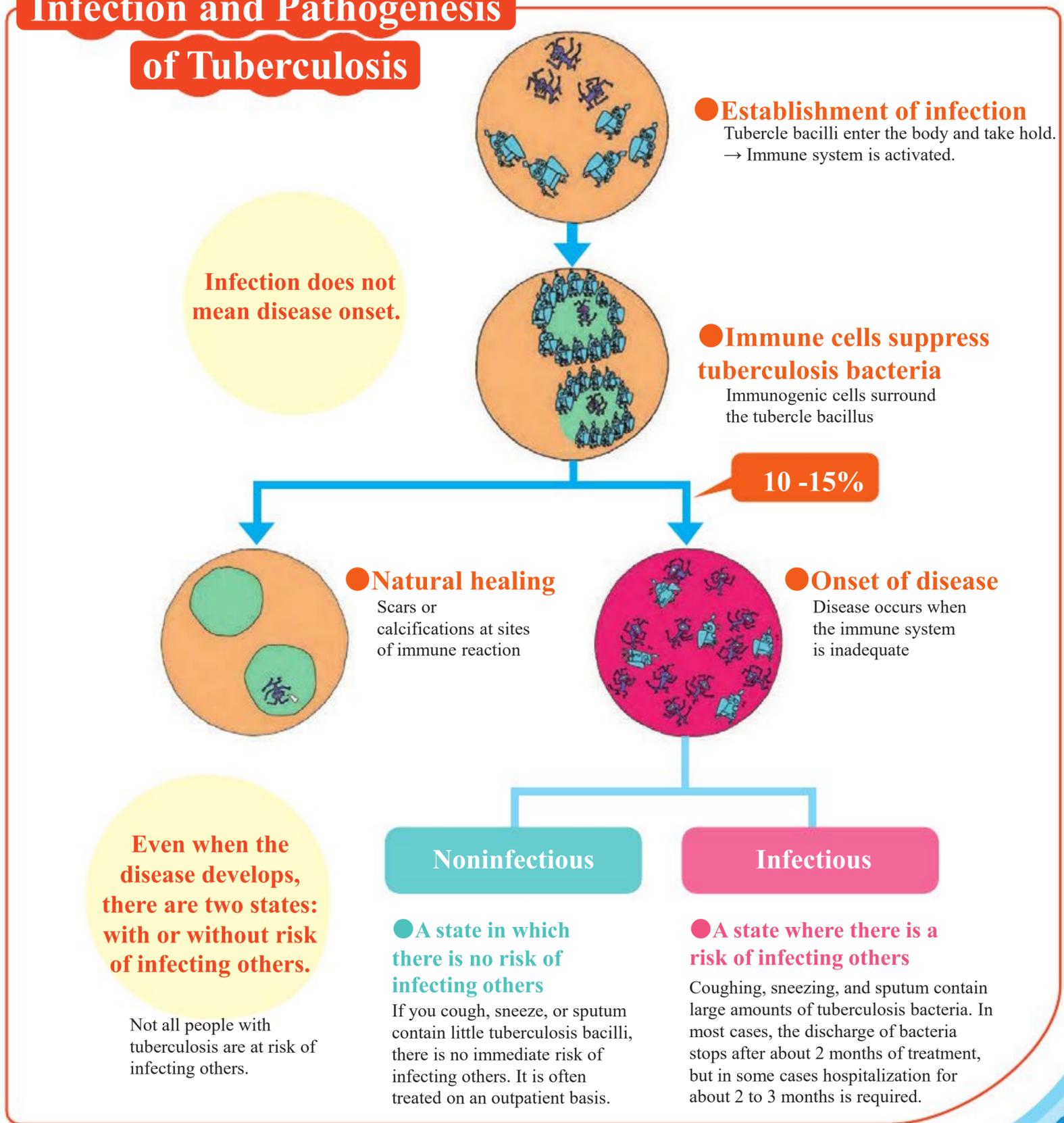
Japan joined the "low-TB incidence" category in 2021, and the incidence rate will continue to decline to 8.1 per 100,000 people in 2024. The elderly account for a large proportion of newly diagnosed patients, with 64.4% being 65 years of age or older. However, 90% of TB patients in their 20s are foreign-born, meaning that even young people should be cautious if they have a history of living in a "high-TB incidence" country.

Additionally, multidrug-resistant tuberculosis, in which existing anti-tuberculosis drugs are less effective, and tuberculosis associated with HIV infection are becoming increasingly serious problems worldwide.

Respiratory symptoms such as fever, cough, and phlegm can also be seen with respiratory infections other than tuberculosis. However, if symptoms such as cough, phlegm, and slight fever persist for more than two weeks, tuberculosis may be suspected, so you should consult a health center. The basic treatment for tuberculosis involves taking multiple oral tuberculosis medications for six months. It is also very important not to interrupt treatment midway.

Pre-entry tuberculosis screening tests have been implemented from 2025. They apply to mid- to long-term residents entering Japan from the Philippines, Vietnam, Indonesia, Nepal, Myanmar, and China (as of December 2025, the implementation for Indonesia, Myanmar, and China is underway).

Infection and Pathogenesis of Tuberculosis





If anyone on campus becomes ill with infectious tuberculosis

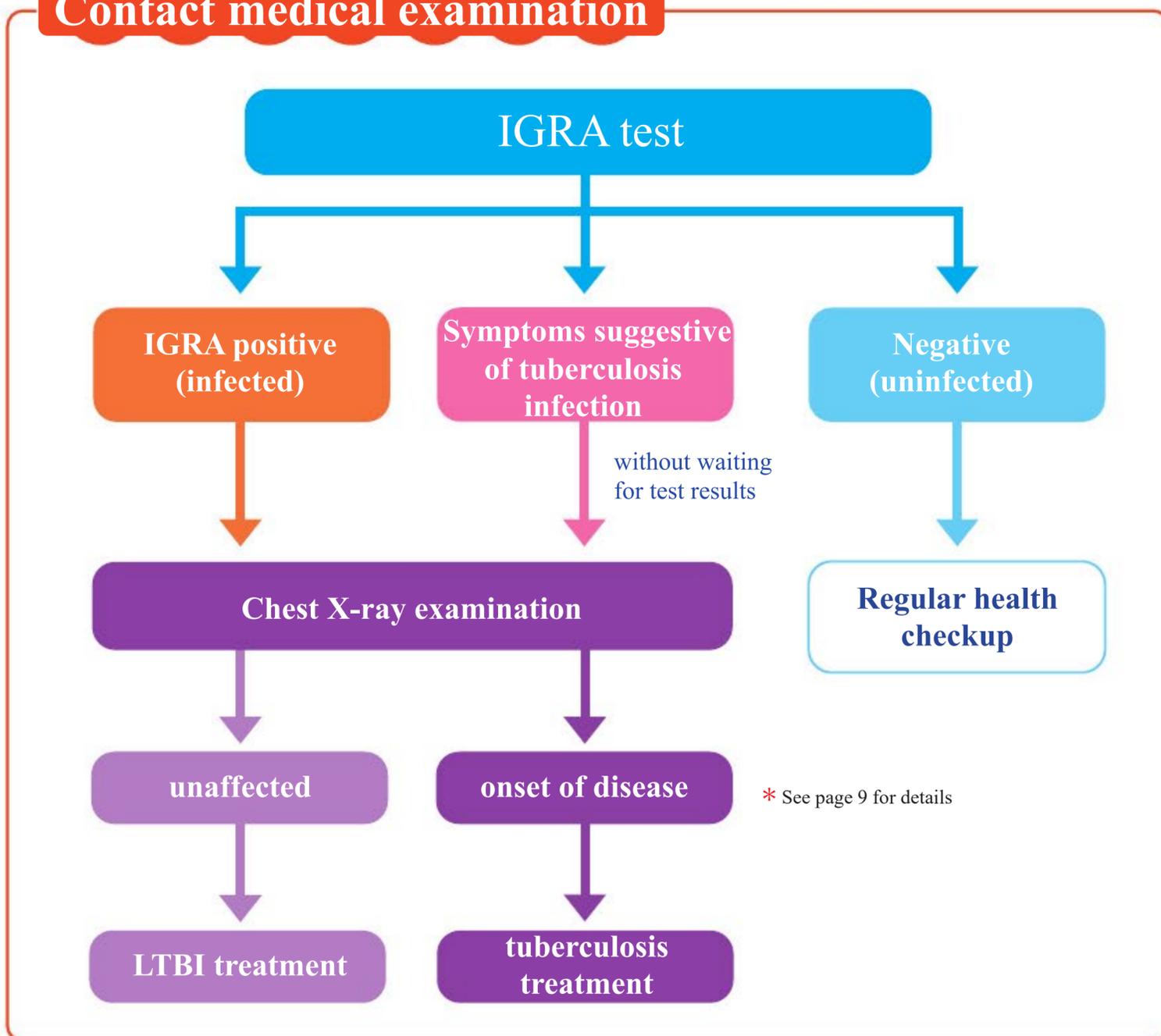
IGRA test is done first

A “contact medical examination” using an IGRA (interferon gamma release assay = blood test QFT, T-SPOT.TB, etc.), which is highly specific for tuberculosis infection, is performed for those who have spent a long time with an infected person. increase.

A chest X-ray is also done

A chest X-ray will be performed for those who test positive for the IGRA test. However, for those who have symptoms suggestive of tuberculosis infection such as cough and phlegm, chest X-ray examination will be performed immediately without waiting for the result of IGRA test.

Contact medical examination



Patient with active tuberculosis is immediately referred to a medical institution.

If there are new cases in the contact screening, they will be referred to a hospital that can treat tuberculosis. Similarly, people who have a positive IGRA test result but have not developed tuberculosis (latent tuberculosis infection = LTBI) are referred to a hospital for treatment such as isoniazid.

Treatment and daily life

To treat latent tuberculosis infection (LTBI), patients take isoniazid for six months or a combination of isoniazid and rifampin for three to four months. During treatment, patients should observe the following:

- Go to the hospital regularly and take medicine as instructed.
- Proper nutrition
- Get enough sleep and avoid overwork
- Avoid smoking and alcohol

Infectious diseases and vaccinations you should know

Measles

The main symptoms are high fever and rash, but complication of pneumonia and encephalitis may lead to death.

In the past, about 80% of measles cases were children under the age of 10, but since the latter half of the 1990s, the number of adult measles patients aged 15 and over has been increasing. More than half of the patients were in their late teens to twenties.

Many viral infections, including measles, were thought to be preventable by vaccination, but in recent years, as epidemics have decreased, it has become possible to strengthen and maintain immunity by encountering the actual virus after vaccination. There have been reports of cases where the booster effect of the vaccine is less likely to occur, and even though one dose of the vaccine was given, the effect diminished over the years and the person contracted measles. For this reason, in the past, children were only vaccinated once when they were 1 year old, but starting in 2006, a second booster vaccination was given during the year before they entered elementary school.

In March 2015, the WHO declared Japan to be in a state of measles "elimination", but the number of measles patients in Japan has not completely disappeared, and so-called imported cases are still occurring. More than 460 cases have been reported annually, and more than 740 cases have been reported in 2019.

Rubella

This disease is common among children up to the early elementary school age, and is accompanied by a rash, fever, and swollen lymph nodes, especially behind the ears. However, infection after puberty generally leads to more severe symptoms, with a higher incidence of arthritis. Furthermore, if a pregnant woman is infected during the early stages of pregnancy (up to around the 16th week), the rubella virus can be transmitted to the fetus, resulting in the birth of a baby with congenital heart disease, hearing loss, cataracts, and other conditions (congenital rubella syndrome).

A live vaccine is used for prevention. Women of childbearing age who are receiving the rubella vaccine should use contraception for about one month before the vaccination. They should also avoid becoming pregnant for about two months after receiving the vaccine.

In Japan, mass rubella vaccination began for female junior high school students in 1977, and was expanded to include both boys and girls with the 1994 revision of the Vaccination Act. However, the vaccination age was changed to childhood (12-90 months) at that time. As a result, the rubella vaccination rate was low among those born between April 1979 and October 1987, and they are now known as the "rubella vaccination gap generation." In 2013, a nationwide rubella outbreak occurred, primarily among this age group, followed by a second-largest outbreak in 2018-2019. Currently, since 2006, the rubella vaccine, along with the measles vaccine, has been administered twice a year, once at age 1 and once a year before entering elementary school.

*Note: Maternal and Child Health Handbook and Vaccination Records

A maternal and child health handbook is issued when a woman notifies her municipality of her pregnancy. It allows for recording of the mother's health status during pregnancy and the health status of the baby after birth. It also includes a section for recording vaccinations, allowing for recording of routine vaccinations during infancy. Even voluntary vaccinations are often recorded, so if you're not sure whether you've been vaccinated, check your maternal and child health handbook. Please note that due to changes in the law, vaccination methods for rubella vary depending on your date of birth.

Mumps

Mumps virus infection causes swelling of one or both parotid glands (salivary glands), and can lead to complications such as meningitis, hearing loss, orchitis, and oophoritis.

A live vaccine is used for prevention, but emergency vaccination when a nearby patient is found is not very effective. Currently, the most effective preventative measure is said to be vaccinating children before they enter group settings, such as daycare centers or kindergartens. (National Institute of Infectious Diseases Infectious Disease Information Center <https://www.niid.go.jp/niid/ja/-from-idsc.html>)

In most countries overseas, except for Japan and some other countries, the mumps vaccine is administered as a routine two-dose vaccination. In Japan, it is an optional vaccine. If you plan to study abroad at a university overseas, you will often be required to have received two doses of the mumps vaccine, so when planning your study abroad trip, be sure to check in advance how many doses of the mumps vaccine you have received.



Pertussis

This is a respiratory disease caused by *Bordetella pertussis*. In adults, symptoms include a cough that lasts for more than two weeks, and some people may experience dry vomiting after coughing, severe coughing fits, and a high-pitched, whistling sound when breathing. The frequency and intensity of coughing gradually decreases over two to four weeks, and the cough disappears within one to three months.

The vaccine is administered as DPT, but its effectiveness decreases over the years, and cases of infection are increasing among people of college age.

Tetanus

Tetanus bacteria exist in soil worldwide in the form of spores that are highly resistant to heat and dryness. They can enter the body through various cuts and wounds, causing severe neurological and muscular symptoms.

Individuals planning activities with high risk of injury, such as fieldwork, especially in developing countries where medical conditions and language barriers are a concern, should consider getting vaccinated. If you get injured deeply, such as a nail puncture, you should consider getting a booster vaccination even if you had received the vaccine beforehand.

DPT vaccinations for infants and DT vaccinations for children provide immunity until the early 20s, and a single booster vaccination provides protection for 5 to 10 years thereafter.

Chicken pox (Varicella)

This disease is caused by a virus that enters the throat via droplet infection, airborne infection, or contact infection, then multiplies and spreads throughout the body, causing blisters to form on the skin. While most cases occur in children under the age of nine, adult cases are more severe and more frequently involve complications such as pneumonia, meningitis, and encephalitis.

Once infected, people are said to acquire lifelong immunity and will not contract the disease again. However, the virus that has been latent in the nerve roots can become active again when the immune system weakens due to illness, causing the formation of painful blisters in a band along the area affected by the nerves. This is the disease known as shingles.

The chickenpox vaccine was previously an optional vaccination, but since October 2014 it has become a routine vaccination, requiring two doses between the ages of 1 and 3.

Additionally, starting in April 2025, vaccinations to prevent shingles became a routine vaccination for people aged 65 and over, who are at a higher risk of developing shingles.

Meningitidis infection

This is an infectious disease caused by *Neisseria meningitidis*. Approximately 30-40 cases occur annually in Japan, with the highest incidence among young people aged 15-19. The illness can sometimes become severe and even life-threatening. Living in groups poses a significant risk of infection, with outbreaks frequently occurring in high school and university dormitories and at large events attracting many people from overseas.

It is transmitted from person to person through coughing, sneezing, sharing eating utensils, etc., and symptoms begin as cold-like symptoms such as fever, headache, and nausea. Over the course of 1-2 days, the illness progresses rapidly and worsens, causing loss of consciousness, convulsions, and shock, which can progress to sepsis, meningitis, and death.

Vaccination is an effective preventative measure and is recommended for those who live in communal settings such as student dormitories or sports club training camps, and for those who frequently participate in group activities such as club activities or volunteer work. Additionally, when studying abroad, the vaccinations required by the host university or country may include the meningococcal vaccine.

Hepatitis A

This is a hepatitis infection transmitted orally, and the contaminated areas overlap with those of typhoid fever. It can also be contracted in Japan through raw shellfish. Prevention measures include being careful with unpasteurized water and washing your hands regularly, and vaccination is recommended for people staying in developing countries for an extended period (more than one month). Few people under the age of 60 have antibodies, so vaccination is recommended. The vaccine is administered in two doses, two to four weeks apart. If you are staying in the country for more than six months, you should receive another dose in the 24th week. Protection will last for approximately five years.

Infectious diseases and vaccinations you should know

Hepatitis B

In the past, many people were infected through blood transfusions, but now that testing is rigorously conducted, infections during medical care are rare. Currently, most people who carry the hepatitis B virus are infected in the birth canal when born to a carrier mother. However, recently, acute hepatitis and its progression to chronic hepatitis caused by sexual transmission have become a problem.

Acute hepatitis B can sometimes become severe and even fatal (approximately 1% of cases). Prevention is possible by taking precautions during sexual activity in Southeast Asia, where travel is common. The vaccine is recommended for high-risk groups, including international travelers, spouses or fiancées of carriers, doctors and nurses, emergency medical personnel, infants born to carriers, and contact sports athletes.

Rabies

This disease is almost always fatal once it develops. Initial symptoms resemble those of a cold, but include pain at the site of the bite, paresthesia, muscle spasms, and contractures. In the acute stage, the sight of water or exposure to cold air can cause abnormal convulsions (hence the name hydrophobia).

In Japan, the disease has been successfully eradicated through dog vaccinations and measures to prevent imported animals, and there have been no domestic cases for over 60 years. However, there have been cases of Japanese people contracting the disease abroad.

Infection can occur through bites not only from dogs but also from other mammals such as foxes, raccoons, and bats. Vaccination is recommended for travelers and those staying in Asia, Africa, and Central and South America for extended periods.

Cholera

In the past, the main symptom was said to be rice-water-like diarrhea, but in recent cholera cases, this type of diarrhea is rare, and symptoms range from loose stools to watery stools.

The first step in prevention in areas where cholera is prevalent (Southeast Asia, South Asia, Africa, etc.) is to avoid tap water, ice, and raw seafood.

Vaccination is administered as an oral inactivated vaccine, administered twice to adults (13 years of age and older) 5 to 7 days apart.

Yellow fever

Symptoms initially resemble a cold-like fever, but include bleeding from the nose and gums and jaundice, and the illness gradually becomes more severe. The mortality rate can be over 50% in travelers and other people.

A live vaccine is used for prevention. A single vaccination is effective for life, so the most effective prevention method is to receive vaccination at a quarantine station or the Japan Quarantine and Sanitation Association when traveling to an endemic area.

Please note that an international vaccination certificate (yellow card) is required for travelers over the age of 1, not only when traveling to endemic areas, but also when passing through endemic areas and entering other countries.

Polio

It is a viral disease of the nervous system that is transmitted via the fecal-oral route. There were many outbreaks in Japan around 1960, but with the introduction of vaccinations (such as the Salk vaccine), it has now been eradicated, and only areas where it remains are South Asia, the Middle East, and Africa.

Traditionally, live attenuated vaccines have been used, but in 2012, an inactivated vaccine (IPV) was developed and introduced into routine vaccinations as a quadrivalent vaccine (DPT-IPV).

Japanese encephalitis

Japanese encephalitis can develop when a human is bitten by a mosquito (*Culex tritaeniorhynchus*) that has bitten a pig infected with the Japanese encephalitis virus.

This is a serious infectious disease with a high mortality rate, and up until now, vaccinations have been administered in three doses at stage 1 (ages 3-4) and one dose at stage 2 (ages 9-10). Active vaccination recommendations were temporarily suspended due to serious side effects associated with vaccination, but a new vaccine was introduced in 2010, and vaccination recommendations have been resumed.

If you are under 20 years old and were born before April 1, 2007, you can get any missing vaccinations at public expense.



Influenza

Every winter, millions of people in Japan become infected with the virus, resulting in hundreds of deaths. It is transmitted through droplets and direct contact. An inactivated vaccine is used for prevention. Vaccination was recommended in 2001, primarily for the elderly, and part of the cost is now covered by public funds. Vaccination is also recommended for people with chronic heart or lung disease, diabetes, or immunocompromised individuals, and those working in the medical or nursing care fields.

However, the vaccine's effectiveness does not last long, so it must be administered annually before the season begins (October-November).

Since the COVID-19 epidemic began in February 2020, influenza infections have declined sharply until 2022. However, as early as September 2023, Tokyo, Okinawa, and other prefectures issued influenza warnings. Vaccination is strongly recommended for many generations.

Tuberculosis

Tuberculosis is transmitted through the air, and it takes 6 to 8 weeks for infection to become established, with symptoms usually appearing within 6 months to 2 years. Because the tuberculosis bacteria remain dormant in the body for the rest of one's life, the risk of developing the disease continues.

The BCG vaccine is administered between the ages of 5 and 8 months as a part of routine vaccinations. In 2021, Japan became a "low tuberculosis incidence country."

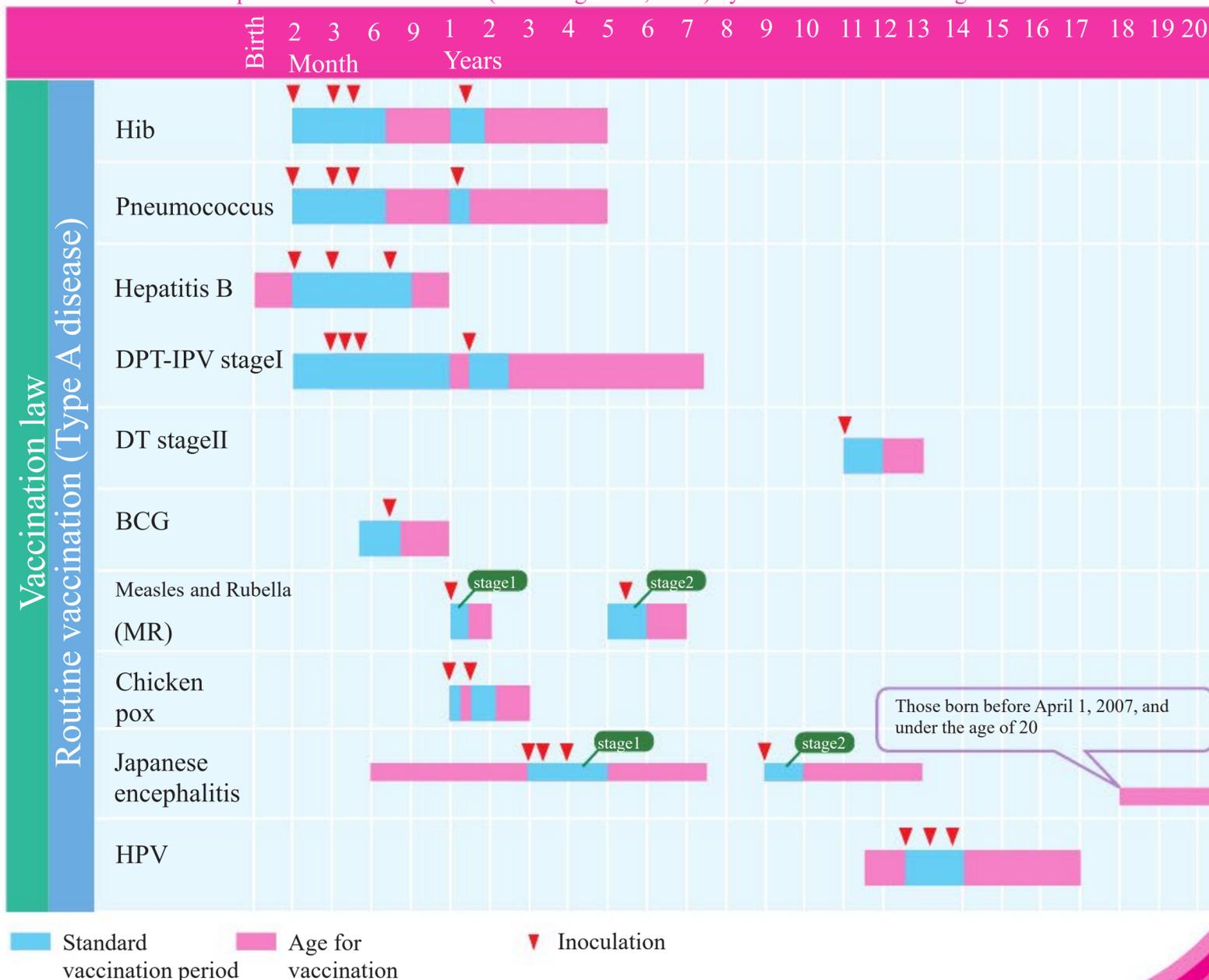
Others

Starting in October 2024, routine COVID-19 vaccinations will be available to those aged 65 and older. A five-component vaccine combining Hib and DPT-IPV will be introduced in April 2024 (not shown in the chart below). Meanwhile, vaccinations against hepatitis C, HIV infection, and malaria are not yet available.

● If adverse reactions occur as a result of receiving a vaccination under the Vaccination Act, and you suffer health damage, your city, ward, town, or village will cover medical expenses and other costs under the Vaccination Health Damage Relief System.

Vaccination Schedule (Excerpt)

Created based on the Japan Vaccination Schedule (as of August 25, 2025) by the Health Risk Management Research Institute



Vaccination record sheet Keep a record of your vaccination information

You will be required to submit vaccination records when entering university, studying abroad, participating in teaching practice, nursing practice, hospital practice, internships, etc. It is important to keep your vaccination records, such as your maternal and child health handbook, on hand. When studying abroad, you may be required to receive vaccinations that were not previously routine, such as chickenpox and hepatitis B, as well as vaccinations for adults, such as mumps, whooping cough, tetanus, and meningococcal vaccines.

		Implementation date		
Routine vaccination (Type A disease)	DPT 3 type-mixed D (Diphtheria) P (Whooping cough) T (Tetanus)	Stage I	1	
			2	
			3	
			4	
		II	5	
	Polio		1	
			2	
	BCG			
	MR		1	
	M (Measles) R (Rubella)		2	
	Japanese encephalitis	I	1	
2				
3				
II		4		

		Implementation date	
Voluntary inoculation	Chickenpox	1	
		2	
	Hepatitis B	1	
		2	
		3	
	Meningococcus		
Mumps	1		
	2		
Hepatitis A	1		
	2		
	3		
Influenza			

*Vaccination against chickenpox has been a routine vaccination since 2014, and vaccination against hepatitis B has been a routine vaccination since 2016.

COLUMN

Surveillance system for acute respiratory infections and its significance

Effective April 1, 2025, acute respiratory infections (ARIs) have been designated as Category 5 infectious diseases under the Infectious Diseases Control Act and are now subject to sentinel surveillance. ARIs are a collective term for acute upper respiratory tract infections such as rhinitis, sinusitis, otitis media, pharyngitis, and laryngitis, as well as acute lower respiratory tract infections such as bronchitis and pneumonia. These include influenza, COVID-19, respiratory syncytial virus (RSV), pharyngoconjunctival fever, group A streptococcal pharyngitis, and herpangina.

This infectious disease is characterized by its high susceptibility to infection through droplets. Experience with the COVID-19 outbreak has heightened the need to establish a surveillance system in place in order to quickly grasp trends and respond quickly in the event of an unknown respiratory infection. For this reason, ARI has been classified as a Category 5 infectious disease, which is expected to strengthen public health measures.

The data collected through this surveillance will be published in the "Acute Respiratory Infection Surveillance Weekly Report" by the National Institute for Health Risk Management (JIHS). JIHS is a world-leading research institute established in April 2025 through the merger of the National Institute of Infectious Diseases and the National Center for Global Health and Medicine. It is expected to protect people from various diseases and health crises, including infectious diseases.

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