

# Pertussis Toolkit for Healthcare Providers

HDOH created this Pertussis Toolkit for Healthcare Providers to empower healthcare providers with the necessary tools to diagnose and manage pertussis effectively, prevent pertussis through vaccination, and to educate patients and staff about pertussis, ultimately contributing to the reduction of pertussis incidence and its associated morbidity and mortality.

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# I. Pertussis Fact Sheet, Q&A, and Flyers/Handouts

In combating pertussis, healthcare providers play a pivotal role in prevention, diagnosis, and management. Our comprehensive toolkit includes a fact sheet, a Q&A document, and flyers aimed at equipping healthcare providers with essential knowledge and resources. These resources can be distributed to patients and families as well as posted around the clinic.

## **Pertussis (Whooping Cough) Fact Sheet:**

- Reference sheet for healthcare providers and staff. Contains general information on pertussis including background, signs and symptoms, diagnosis and testing, treatment and prophylaxis, vaccines, and other prevention measures.

## **Pertussis (Whooping Cough) Questions & Answers:**

- Handout for patients and families addressing frequently asked questions regarding pertussis, its transmission, signs and symptoms, diagnosis, treatment, vaccination, and prevention.

## **Pertussis Flyers/Handouts:**

- Visual aids and flyers that can be posted in the clinic and waiting rooms, at community health events, and disseminated to patients and families. Reinforce key messages about adolescent vaccinations, pertussis vaccination schedule, enhance infection control in and outside of the clinic, and reduce the spread of respiratory infections.



# Pertussis (Whooping Cough) Fact Sheet

## ABOUT THIS DISEASE

Pertussis, or whooping cough, is a highly contagious bacterial disease caused by *Bordetella pertussis*, which is found in the mouth, nose, and throat of an infected person.

Pertussis can cause serious and potentially life-threatening complications in infants and young children, especially those who are not fully vaccinated. Approximately half of all infants younger than age 12 months with pertussis, are hospitalized. Complications include pneumonia, seizures, apnea (a pause in the breathing pattern), encephalopathy (disease of the brain), and death.

Adolescents and adults may also develop complications, such as pneumonia, but they are usually less severe than in infants. Complications in teens and adults are often caused by the cough itself and include weight loss, loss of bladder control, fainting, and rib fractures (from severe coughing).

## SIGNS AND SYMPTOMS

The disease usually starts with cold-like symptoms and maybe a mild cough or fever. Symptoms of pertussis usually develop within 5 to 10 days after being exposed, but sometimes as long as 3 weeks later.

**Early symptoms** can last for 1 to 2 weeks and usually include:

- Runny nose
- Low-grade fever
- Mild, occasional cough (may be minimal or absent in infants)
- Apnea – a pause in the breathing pattern (in infants)

Because pertussis in its early stages may look like the common cold, it often is not suspected or diagnosed until the more severe (later-stage) symptoms appear.

### **Later-stage symptoms**

After 1 – 2 weeks and as the disease progresses, the “traditional” symptoms of pertussis may appear, including:

- Paroxysms (fits) of many, rapid coughs followed by a high-pitched “whoop”
- Vomiting during or after coughing fits
- Exhaustion after coughing fits

Although persons are often exhausted after coughing fits, they may appear well in-between. Coughing fits generally become more frequent and severe as the illness continues and can occur more often at night. The coughing fits can continue for up to 10 weeks or more.

The infection is generally milder in teens and adults, especially those who have been vaccinated.

## TRANSMISSION

Like other respiratory illnesses, pertussis is spread by coughing and sneezing while in close contact with others, who then breathe in the pertussis bacteria.

Persons with pertussis are infectious from the beginning of the early symptoms through the third week, up to 21 days, after the onset of coughing, or until 5 days after the start of effective antibiotic treatment.

## DIAGNOSIS

Pertussis is diagnosed by a combination of symptoms, signs, physical examination, and laboratory tests. People with symptoms of pertussis or who have been exposed to someone with pertussis should contact a healthcare provider immediately.

## TREATMENT

Pertussis is generally treated with antibiotics. Early treatment of pertussis is very important. Treatment may make the infection less serious if it is started early, before coughing fits begin, and may help prevent the spread of pertussis to close contacts.

Treatment after three weeks of illness is unlikely to help, even though the person still has symptoms.

Persons who have been in close contact with someone with pertussis (such as household members), especially those at high risk for developing severe disease, should also receive antibiotics after exposure to try to prevent getting or spreading the disease. Close contacts should receive antibiotics regardless of their age and vaccination status.

Pertussis can sometimes be very serious, requiring treatment in the hospital. Infants are at greatest risk for serious complications from pertussis.

## IMMUNITY

Pertussis vaccines are the most effective tool to prevent this disease, however, no vaccine is 100% effective. Pertussis vaccines typically offer good levels of protection within the first 2 years after getting vaccinated, but then protection decreases over time. Vaccinated children and adults can become infected with and spread pertussis; however, disease is typically much less serious in vaccinated people.

Similarly, natural infection with pertussis does not provide lifelong protection. Pertussis can still occur in people who have had the disease previously.

## HISTORICAL REPORTED CASES IN HAWAII

Summary of Reported Cases of Notifiable Diseases:

<http://health.hawaii.gov/docd/resources/reports/summary-of-reported-cases-of-notifiable-diseases/>

## PREVENTION

The most effective way to prevent pertussis is through vaccination. Pertussis vaccines are recommended for people of all ages. There are two kinds of vaccines used today to protect against pertussis, both of which are combined with vaccines for other diseases:

- Diphtheria, tetanus, and pertussis (DTaP) vaccine
- Tetanus, diphtheria, and pertussis (Tdap) vaccine

**Infants and children** need 5 doses of DTaP vaccine for maximum protection, at ages 2, 4, 6, 15-18 months, and at 4-6 years.

**Preteens** need a booster dose of Tdap vaccine at age 11-12 years.

**Teens or adults** who didn't receive Tdap as a preteen should receive one dose, especially those who have contact with infants.

**Pregnant women** should receive a dose of Tdap vaccine during the 3<sup>rd</sup> trimester of **each** pregnancy, preferably during the early part of gestational weeks 27 through 36.

**Healthcare personnel** who have direct patient contact (especially with infants) should receive a single dose of Tdap if they have not previously received one.

In addition to vaccination, practicing good hygiene is recommended to prevent the spread of respiratory illnesses, including pertussis. To practice good hygiene you should:

- Cover your mouth and nose with a tissue when you cough or sneeze.
- Put your used tissue in the waste basket.
- Cough or sneeze into your upper sleeve or elbow, not your hands, if you don't have a tissue.
- Wash your hands often with soap and water for at least 20 seconds.
- Use an alcohol-based hand rub if soap and water are not available.

## ADDITIONAL RESOURCES

- CDC Website: <https://www.cdc.gov/pertussis/index.html>
- Diphtheria, Tetanus, and Pertussis (DTaP) Vaccine Information Statement: <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/dtap.pdf>
- Tetanus, diphtheria, and pertussis (Tdap) Vaccine Information Statement: <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/tdap.pdf>

## INFORMATION FOR CLINICIANS

- CDC Website: <https://www.cdc.gov/pertussis/clinical/index/html>
- Diphtheria, Tetanus, and Pertussis Vaccination: information for Healthcare Professionals: <https://www.cdc.gov/vaccines/vpd/dtap-tdap-td/hcp/index.html>

# Pertussis Questions & Answers

## What is pertussis?

Pertussis, or whooping cough, is a respiratory infection caused by bacteria. It spreads easily and can be dangerous for babies and young children. A common symptom of pertussis is severe coughing fits, with a "whooping" sound when breathing in.

## How long until signs and symptoms appear?

Symptoms usually start 7-10 days after exposure to the bacteria, with a range of 4-21 days. People with pertussis are most contagious during the first two weeks after coughing begins.

## How is pertussis spread?

Pertussis is mainly spread through germs left in the air when a sick person coughs or sneezes. Close contact with a sick person, especially in crowded areas with low air flow, can increase the risk of getting sick.

## Who is at risk of pertussis?

Pertussis can affect people of all ages, but certain groups have a higher risk of getting sick:

- Infants younger than 6 months old, who are more vulnerable to severe illness and complications
- Pregnant women, especially those in the third trimester, and their newborns
- People with compromised immune systems
- Those who have not been vaccinated fully or at all

## What are the typical symptoms of pertussis?

- Coughing fits (often followed by a "whooping" sound while breathing in)
- Vomiting
- Fatigue (exhaustion)
- Mild fever

For more information on pertussis, visit:

- About Whooping Cough (CDC): [www.cdc.gov/pertussis/about](http://www.cdc.gov/pertussis/about)
- Pertussis (Whooping Cough): [www.immunize.org/wp-content/uploads/catg.d/p4212.pdf](http://www.immunize.org/wp-content/uploads/catg.d/p4212.pdf)
- Pertussis (Whooping Cough): [health.hawaii.gov/docd/disease\\_listing/pertussis/](http://health.hawaii.gov/docd/disease_listing/pertussis/)

# Pertussis Questions & Answers

## What is the treatment for pertussis?

Pertussis can be treated with antibiotics (medicines that kill bacteria or make it hard for them to grow). Post-exposure prophylaxis and vaccination are also important for treatment and prevention. Ask your doctor for more information.

## How is pertussis diagnosed?

Diagnosis of pertussis is primarily based on whether or not a person has symptoms and is confirmed through laboratory testing.

## Is pertussis vaccine effective?

Yes, pertussis vaccines do a good job of preventing sickness.

Vaccines can also make symptoms less severe if sickness occurs. However, vaccine strength may lower over time, and it's important to get a booster shot for continued protection.

## What should I do if I suspect that I or someone else has pertussis?

If you think you or someone else has pertussis, see your doctor immediately. Book a visit with your doctor for testing and treatment.

Follow your doctor's recommendations, wear a mask, and cover your cough/sneeze with a tissue to help stop the spread.

## How can pertussis be prevented?

Pertussis prevention depends on a combination of vaccination, maintaining good respiratory hygiene, and seeking immediate care for symptoms:

- Routine childhood vaccination with the DTaP (diphtheria, tetanus, acellular pertussis) vaccine.
- Tdap (tetanus, diphtheria, acellular pertussis) booster vaccination for adolescents and adults, including pregnant women.
- Vaccination of healthcare workers.
- If you test positive for pertussis, avoid close contact with others for 21 days if you have not received treatment, or for 5 days if you have received treatment.
- Practicing respiratory hygiene, including covering coughs and sneezes with tissues, and frequent handwashing.
- Sanitizing high-touched surfaces.

For more information on pertussis, visit:

- About Whooping Cough (CDC): [www.cdc.gov/pertussis/about](http://www.cdc.gov/pertussis/about)
- Pertussis (Whooping Cough): [www.immunize.org/wp-content/uploads/catg.d/p4212.pdf](http://www.immunize.org/wp-content/uploads/catg.d/p4212.pdf)
- Pertussis (Whooping Cough): [health.hawaii.gov/docd/disease\\_listing/pertussis/](http://health.hawaii.gov/docd/disease_listing/pertussis/)



# Flyers/Handouts



## **WHY** do preteens & teens need to be vaccinated? **WHEN** should preteens & teens be vaccinated?

Vaccines are not just for infants. As children get older, the protection provided by childhood vaccines can wear off. Preteens and teens are also at risk for different diseases as they get older.

Healthcare providers recommend several vaccines for preteens at their 11 or 12 year old check-up. These vaccines prevent serious, sometimes life-threatening diseases. Older teens who weren't vaccinated earlier should be immunized as soon as possible.



## **WHAT** vaccines do preteens & teens need?

### DISEASE

### VACCINE

#### **Pertussis (Whooping Cough)**

Pertussis (Whooping Cough) is highly contagious and causes severe coughing fits. The coughing can cause your preteen or teen to miss weeks of school, sports, and social activities.

The Tdap vaccine protects against three serious diseases: tetanus, diphtheria, and pertussis. All preteens should receive one Tdap shot at age 11 or 12 years.

#### **Meningococcal Infection**

Meningococcal infection can be very serious, even deadly. Even with antibiotic treatment, about 1 in 10 people with meningococcal disease will die from it. About 20% of survivors will have long-lasting disabilities, such as loss of limb or brain damage.

The meningococcal vaccines protect against some types of bacteria that cause meningococcal disease. All preteens should receive the quadrivalent conjugate meningococcal vaccine when they are 11 or 12 years old and need a booster shot at age 16 years. Teens (preferably at age 16 - 18 years) may also be vaccinated with a serogroup B meningococcal vaccine.

#### **Human Papillomavirus (HPV)**

Human Papillomavirus (HPV) is a common virus that has many different strains or types. HPV infection can cause 6 different types of cancers in addition to genital warts.

All preteens should receive HPV vaccine when they are 11 or 12 years old. Two shots, given at least 6 months apart, are needed for children who receive the first dose before their 15th birthday. Three doses are needed for adolescents who start the series later.

#### **Influenza**

Influenza or "flu" is a contagious infection of the nose, throat, and lungs. Flu can cause mild to severe illness, and in some cases can cause death.

All preteens and teens should be vaccinated against flu each year, ideally by the end of October. Vaccination during the flu season, even in January or later, is recommended for those who weren't vaccinated earlier.

These vaccines are recommended by the Centers for Disease Control and Prevention, the American Academy of Pediatrics, and the American Academy of Family Physicians.

## **Are these Vaccines Safe & Effective?**

All of these vaccines have been studied extensively and are safe and effective. Preteens and teens may experience mild side effects such as redness and soreness at the injection site. Some preteens and teens may faint after getting vaccinated. To help avoid fainting, preteens and teens should sit or lie down when they get a shot and for about 15 minutes after.

## **Can I Get Help Paying for Vaccines?**





Ask your child's healthcare provider about the Vaccines for Children (VFC) program. The VFC program offers vaccines at no cost for children ages 18 years and younger, who are uninsured, underinsured (health insurance does not pay for childhood immunizations), Medicaid-eligible, or American Indian or Alaska Native.

## **HOW** can parents help?

Help your preteen or teen stay healthy by keeping up-to-date on recommended immunizations. Make an appointment with your child's healthcare provider today.

## **Get More Information**

Department of Health Immunization Branch

-  586-8332 (Oahu)
-  1-800-933-4832 (Neighbor Islands)
-  [health.hawaii.gov](mailto:health.hawaii.gov)
-  [cdc.gov/vaccines](http://cdc.gov/vaccines)



# People of all ages need WHOOPING COUGH VACCINES



## **DTaP**

for young children

- ✓ 2, 4, and 6 months
- ✓ 15 through 18 months
- ✓ 4 through 6 years

## **Tdap**

for preteens

- ✓ 11 through 12 years

## **Tdap**

for pregnant women

- ✓ During the 27-36th week of each pregnancy

## **Tdap**

for adults

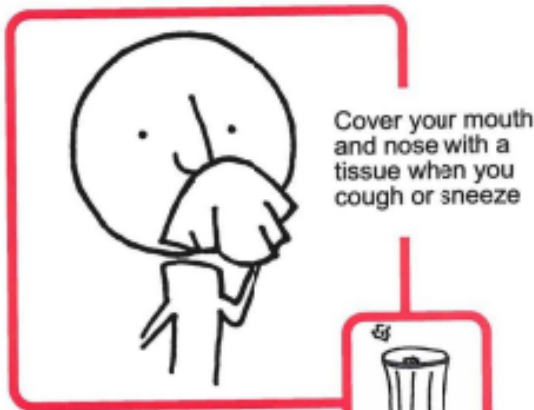
- ✓ Anytime for those who have never received it

[www.cdc.gov/whoopingcough](http://www.cdc.gov/whoopingcough)



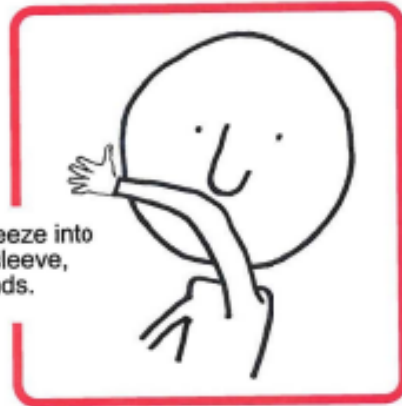
# Keep Germs to Yourself!

## Cover your Cough



OR

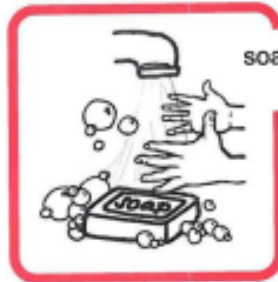
cough or sneeze into your upper sleeve, not your hands.



Put your used tissue in the waste basket.



## Clean your Hands after coughing or sneezing.



OR

clean with alcohol-based hand cleaner.



Stop the spread of germs that make you and others sick!

For more information, call the Hawaii Department of Health at 586-8332

Neighbor island calls are toll-free at 1-800-933-4832

# PERTUSSIS (WHOOPIING COUGH)

## WHAT IS IT?

Whooping cough is a highly contagious bacterial disease that can cause severe and life-threatening complications, especially for babies and young children.

## COMPLICATIONS



- Pneumonia (lung infection)
- Convulsions
- Brain damage
- Apnea (pause in breathing)
- Death

The early symptoms of whooping cough are similar to the common cold. Symptoms usually develop within 5 to 10 days after being exposed, but sometimes as long as 3 weeks later.

- Runny nose
- Fever
- Apnea
- Severe coughing fits followed by a high-pitched "whoop" sound
- Vomiting and exhaustion during or after coughing fits

## SYMPTOMS



Like other respiratory illnesses, whooping cough is spread by coughing and sneezing while in close contact with others, who then breathe in the pertussis bacteria. The most effective way to prevent whooping cough is through vaccination.

## PREVENTION



- Get vaccinated! Talk to your doctor for more information about the pertussis vaccines:
  - DTaP (infants and young children)
  - Tdap (adolescents, teens, adults)
- If you suspect you might have pertussis, avoid close contact with others, wear a mask, and get tested as soon as possible
- If you test positive for pertussis, isolate for 21 days (if you have not received treatment) OR for 5 days (if you have received treatment)

## II. Guidance for Testing, Infection Control, and Respiratory Education/Training Videos and Links

As pertussis pose a challenge in clinical settings, ensuring effective testing protocols and infection control measures is paramount. Our guidance aims to equip healthcare providers and their staff with practical strategies to streamline pertussis testing, implement robust infection control measures within clinics, and provide additional respiratory education and training resources.

### Guidance on Testing for Pertussis for Healthcare Providers:

- Guidelines for healthcare providers and staff to emphasize clinical isolation and suspicion of pertussis based on symptoms, exposure history, vaccination status; recommended testing options; specimen sample collection protocol; and case reporting to HDOH.

### Guidance on Pertussis Infection Control in Clinics for Healthcare Providers:

- Guidelines for healthcare providers and staff to prevent and manage pertussis transmission within a clinical setting to ensure staff and patient safety through early identification, personal protective equipment (PPE), best hygiene and disinfection strategies, physical distancing, vaccination, and education and training.

### Respiratory Education/Training Resources:

- Videos and additional resources for staff to enhance knowledge and skills and educate patients and families on pertussis and other respiratory viruses and bacteria. These include training videos, infographics, documents, and webpages.

GUIDANCE ON

# Testing for Pertussis

## FOR HEALTHCARE PROVIDERS

Timely and accurate diagnosis of pertussis is crucial for effective patient management, outbreak control, and prevention of further transmission. This testing guidance aims to assist healthcare providers in selecting appropriate diagnostic tests and interpreting results in the context of pertussis suspicion.

**\* If a person suspected of having pertussis presents in your office:**

### 1 Promptly Isolate

Promptly isolate to avoid disease transmission and place a mask on the patient.

### 2 Collect Sample

For diagnosis, collect a nasopharyngeal swab in viral transport media for PCR (available through commercial laboratories), preferably early in the course of illness (within 2–3 weeks of cough onset). In suspected outbreak scenarios, pertussis PCR can also be performed at the State Laboratories Division with pre-approval from the Disease Outbreak Control Division. Serologic diagnosis is not recommended because of poor sensitivity and specificity.

#### Diagnostic Testing Recommendations:

#### Nucleic Acid Amplification Tests (NAATs)

- NAATs, such as polymerase chain reaction (PCR), are the preferred diagnostic method for pertussis due to their high sensitivity and specificity.
- Obtain nasopharyngeal swabs or aspirates for PCR testing, preferably during the acute phase of illness (within the first 2–3 weeks of cough onset).

#### Culture

- Culture of *B. pertussis* remains an option for diagnostic confirmation, especially in cases with negative PCR results or when laboratory resources permit.
- Collect nasopharyngeal specimens using specialized transport media suitable for pertussis culture.

#### Interpretation of Test Results:

#### Positive Result

A positive NAAT or culture confirms the presence of *B. pertussis* DNA or viable organisms, respectively, indicating active infection. Treat the patient promptly and implement appropriate infection control measures.

#### Negative Result

A negative NAAT or culture does not exclude pertussis, especially if obtained late in the illness course or from suboptimal specimens. Consider clinical and epidemiological factors when interpreting negative results.

#### Additional Guidance:

#### Serology

Positive serological findings (elevated IgG/IgA titers) may suggest recent or past pertussis infection but do not distinguish between acute and convalescent phases. Use serology cautiously and in conjunction with clinical assessment.

#### Special Considerations

- **Testing in Infants:** Infants <6 months of age are at highest risk of severe pertussis complications. Expedite testing and treatment in this vulnerable population, even in the absence of typical symptoms.
- **Vaccination Status:** Vaccination history may influence the clinical presentation and interpretation of diagnostic tests. Consider pertussis testing regardless of vaccination status, as breakthrough infections can occur.

#### Reporting and Public Health Collaboration:

\***Reportable Disease:** Pertussis is a reportable infectious disease in most jurisdictions. According to the Hawaii Administrative Rules Chapter 11-156, pertussis is reportable in the State of Hawaii and is considered **urgent**.

\*Follow Hawaii Department of Health's (HDOH) reporting requirements and collaborate closely with public health authorities for case management and outbreak control. Healthcare providers should call **HDOH's Disease Reporting Line at (808)-586-4586** and report if there is a positive laboratory test result or if there is a strong suspicion (clinical symptoms present and tests ordered) of pertussis.

For Additional Resources, Visit:

- Clinical Overview of Pertussis (CDC): [www.cdc.gov/pertussis/hcp/clinical-overview](http://www.cdc.gov/pertussis/hcp/clinical-overview)
- Department of Health Amendment and Compilation of Chapter 11-156 Hawaii Administrative Rules: [health.hawaii.gov/docd/files/2017/01/HAR-Title-11\\_Chapter-156.pdf](http://health.hawaii.gov/docd/files/2017/01/HAR-Title-11_Chapter-156.pdf)
- Hawaii Health Care Providers Disease Reporting Requirements (HDOH): [health.hawaii.gov/docd/for-healthcare-providers/reporting-an-illness-for-healthcare-providers/reportable-diseases/](http://health.hawaii.gov/docd/for-healthcare-providers/reporting-an-illness-for-healthcare-providers/reportable-diseases/)
- Laboratory Testing for Pertussis (CDC): [www.cdc.gov/pertussis/php/laboratories](http://www.cdc.gov/pertussis/php/laboratories)
- Managing Pertussis: Think, Test, Treat & Stop Transmission: [www.health.state.mn.us/diseases/pertussis/hcp/managepert.pdf](http://www.health.state.mn.us/diseases/pertussis/hcp/managepert.pdf)

# Pertussis Infection Control in Clinics

## FOR HEALTHCARE PROVIDERS

As healthcare providers, it is crucial to implement robust infection control measures to prevent the transmission of pertussis within clinical settings. Given its potential for rapid spread, adherence to strict infection control practices is essential to protect patients, staff, and visitors from acquiring and transmitting the infection. By implementing these infection control measures consistently and effectively, clinics can help mitigate the spread of pertussis and protect the health and safety of both patients and healthcare workers. Below are key recommendations for infection control in clinics managing pertussis cases:

### 1 Early Identification

Prompt identification of patients presenting with symptoms suggestive of pertussis is vital. Maintain a high index of suspicion, particularly in individuals with persistent coughing spells and post-tussive vomiting. Upon arrival, promptly isolate patient in a well-ventilated room with airborne infection isolation precautions and apply surgical mask to patient, if available.

### 2 Use of Personal Protective Equipment (PPE)

Healthcare personnel should wear appropriate PPE. This includes the use of a well-fitted surgical facemask or higher-level respiratory protection, along with gloves, gowns, and eye protection to minimize exposure to respiratory droplets.

### 3 Hand Hygiene

Emphasize the importance of hand hygiene among staff, patients, and visitors. Encourage frequent handwashing with soap and water for at least 20 seconds, especially before and after patient contact, after removing PPE, and after coughing or sneezing. If soap and water are unavailable, alcohol-based hand sanitizers with at least 60% alcohol content are effective alternatives.

### 4 Respiratory Hygiene & Cough Etiquette

Educate patients and caregivers about respiratory hygiene practices to reduce the spread of respiratory droplets. Encourage the use of tissues to cover coughs and sneezes, followed by proper disposal of used tissues and immediate hand hygiene. If tissues are not available, advise individuals to cough or sneeze into their elbow rather than their hands.

### 5 Environmental Cleaning & Disinfection

Implement routine cleaning and disinfection protocols to reduce the viability of bacteria and viruses on surfaces. Use EPA-approved disinfectants with demonstrated efficacy against respiratory pathogens, paying particular attention to frequently touched surfaces and high-traffic areas within the clinic.

### 6 Minimize Crowding & Stagger Appointment Times

Where feasible, minimize overcrowding in waiting areas and maintain physical distancing between patients. Consider staggering appointments (i.e., scheduling acute visits during a certain block of time and chronic appointments at another), implementing telemedicine services, or utilizing outdoor waiting areas to facilitate distancing measures. This helps to reduce the risk of transmission of respiratory illness.

### 7 Vaccination Promotion

Advocate for pertussis vaccination among eligible patients, caregivers, and healthcare personnel as a primary prevention strategy. Ensure adherence to recommended vaccination schedules, including routine childhood immunization, adolescent/adult booster doses, and vaccination during pregnancy to confer passive immunity to infants.

### 8 Staff Education & Training

Provide regular education and training sessions for clinic staff on infection control practices, including recognition of pertussis symptoms, proper use of PPE, and adherence to isolation precautions. Encourage open communication and collaboration to address any concerns or challenges related to infection control.

For Additional Resources, Visit:

- State of Hawaii Department of Health, Disease Outbreak Control Division: [health.hawaii.gov/docd/disease-types/respiratory-viruses](http://health.hawaii.gov/docd/disease-types/respiratory-viruses)
- State of Hawaii Department of Health, Disease Outbreak Control Division, Pertussis (Whooping Cough): [health.hawaii.gov/docd/disease\\_listing/pertussis](http://health.hawaii.gov/docd/disease_listing/pertussis)
- Infection Control Basics (CDC): [www.cdc.gov/infection-control/about](http://www.cdc.gov/infection-control/about)
- Respiratory Guidance (CDC): [www.cdc.gov/respiratory-viruses/guidance/respiratory-virus-guidance.html](http://www.cdc.gov/respiratory-viruses/guidance/respiratory-virus-guidance.html)



# Respiratory Education/Training Resources

Below are some education and training resources. While some of these videos and links may be specific for a different respiratory infection, they can still serve as versatile tools for enhancing knowledge, skills, and preparedness in combating pertussis outbreaks and reducing disease burden.

*State of Hawaii, Department of Health, Disease Outbreak Control Division:*

- HDOH Respiratory Viruses Webpage <https://health.hawaii.gov/docd/disease-types/respiratory-viruses/>
- Pertussis (Whooping Cough) Webpage: [https://health.hawaii.gov/docd/disease\\_listing/pertussis/](https://health.hawaii.gov/docd/disease_listing/pertussis/)

*Additional Resources:*

- Germs Can Live In the Respiratory System (<https://www.cdc.gov/project-firstline/media/pdfs/Healthcare-Germs-Body-RespiratorySystem-508.pdf>)

*More Information on Specific Respiratory Viruses:*

- Infection Control Action for Respiratory Viruses ([Infection Control Actions for Respiratory Viruses \(cdc.gov\)](#))

*Additional guidance is available to prevent and control the spread of infections in healthcare settings:*

- Project Firstline (<https://health.hawaii.gov/coronavirusdisease2019/for-clinicians/project-firstline/>)
- Ventilation and Infection Control in Healthcare (<https://www.youtube.com/watch?v=KTjtYVw0Sj4&list=PLvvp9iOILTQZQGtDnSDGViKdDrtlc13VX>)
- COVID-19 Respiratory Droplets Job Aid (<https://stacks.cdc.gov/view/cdc/153741>)
- Project FirstLine Risk Poster 1: <https://www.cdc.gov/project-firstline/media/pdfs/Thousands-of-Germs-Poster-1-508.pdf>
- Project FirstLine Risk Poster 2: [Project Firstline Risk Poster \(cdc.gov\)](#)
- Episode 4: What's a Respiratory Droplet? Why Does it Matter? (<https://www.youtube.com/watch?v=eiuCeBt3itQ&list=PLvvp9iOILTQZQGtDnSDGViKdDrtlc13VX&index=23>)
- Episode 5: How do Viruses Make You Sick? (<https://www.youtube.com/watch?v=plAH2l9Eg6g&list=PLvvp9iOILTQZQGtDnSDGViKdDrtlc13VX&index=6>)
- Episode 6: How Do Viruses Spread From Surfaces To People? (<https://www.youtube.com/watch?v=KmyxsnuREGs&list=PLvvp9iOILTQZQGtDnSDGViKdDrtlc13VX&index=7>)
- Episode 9: What is Personal Protective Equipment (PPE)? (<https://www.youtube.com/watch?v=e-t2yZsEo70&list=PLvvp9iOILTQZQGtDnSDGViKdDrtlc13VX&index=11>)



- Episode 16: Cleaning? Disinfection? What is the Difference?  
(<https://www.youtube.com/watch?v=dluRI9OpjnY&list=PLvvp9iOILTQZQGtDnSDGViKDdRtlc13VX&index=18>)
- Episode 21: Do We Really Have to Talk About Hand Hygiene? Again? Yes!  
(<https://www.youtube.com/watch?v=n1oqVM-N3j8&list=PLvvp9iOILTQZQGtDnSDGViKDdRtlc13VX&index=23>)
- Episode 22: Why Does Contact Time Matter for Disinfection?  
(<https://www.youtube.com/watch?v=TCa7Gg1NUD4&list=PLvvp9iOILTQZQGtDnSDGViKDdRtlc13VX&index=24>)

### III. DTaP and Tdap Vaccine Information Statements (VIS) for Pertussis

The vaccine information statement (VIS) for DTaP and Tdap aims to provide healthcare providers with essential details to facilitate informed decision-making and communication with patients.

#### DTap and Tdap Vaccine Information Statements:

- Informational handouts for patients, families, or caregivers given prior to administering the DTaP or Tdap vaccine which includes information on the purpose of the vaccine, recommended schedule, and potential side effects.
- For vaccine information statements in other languages:  
<https://www.immunize.org/vaccines/vis-translations>

# DTaP (Diphtheria, Tetanus, Pertussis) Vaccine: *What You Need to Know*

Many vaccine information statements are available in Spanish and other languages. See [www.immunize.org/vis](http://www.immunize.org/vis)

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite [www.immunize.org/vis](http://www.immunize.org/vis)

## 1. Why get vaccinated?

DTaP vaccine can prevent **diphtheria, tetanus, and pertussis**.

Diphtheria and pertussis spread from person to person. Tetanus enters the body through cuts or wounds.

- **DIPHTHERIA (D)** can lead to difficulty breathing, heart failure, paralysis, or death.
- **TETANUS (T)** causes painful stiffening of the muscles. Tetanus can lead to serious health problems, including being unable to open the mouth, having trouble swallowing and breathing, or death.
- **PERTUSSIS (aP)**, also known as “whooping cough,” can cause uncontrollable, violent coughing that makes it hard to breathe, eat, or drink. Pertussis can be extremely serious especially in babies and young children, causing pneumonia, convulsions, brain damage, or death. In teens and adults, it can cause weight loss, loss of bladder control, passing out, and rib fractures from severe coughing.

## 2. DTaP vaccine

DTaP is only for children younger than 7 years old. Different vaccines against tetanus, diphtheria, and pertussis (Tdap and Td) are available for older children, adolescents, and adults.

It is recommended that children receive 5 doses of DTaP, usually at the following ages:

- 2 months
- 4 months
- 6 months
- 15–18 months
- 4–6 years

DTaP may be given as a stand-alone vaccine, or as part of a combination vaccine (a type of vaccine that combines more than one vaccine together into one shot).

DTaP may be given at the same time as other vaccines.

## 3. Talk with your health care provider

Tell your vaccination provider if the person getting the vaccine:

- Has had an **allergic reaction after a previous dose of any vaccine that protects against tetanus, diphtheria, or pertussis**, or has any **severe, life-threatening allergies**
- Has had a **coma, decreased level of consciousness, or prolonged seizures within 7 days after a previous dose of any pertussis vaccine (DTP or DTaP)**
- Has **seizures or another nervous system problem**
- Has ever had **Guillain-Barré Syndrome** (also called “GBS”)
- Has had **severe pain or swelling after a previous dose of any vaccine that protects against tetanus or diphtheria**

In some cases, your child’s health care provider may decide to postpone DTaP vaccination until a future visit.

Children with minor illnesses, such as a cold, may be vaccinated. Children who are moderately or severely ill should usually wait until they recover before getting DTaP vaccine.

Your child’s health care provider can give you more information.



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Control and Prevention

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## 4. Risks of a vaccine reaction

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- Soreness or swelling where the shot was given, fever, fussiness, feeling tired, loss of appetite, and vomiting sometimes happen after DTaP vaccination.
- More serious reactions, such as seizures, non-stop crying for 3 hours or more, or high fever (over 105°F) after DTaP vaccination happen much less often. Rarely, vaccination is followed by swelling of the entire arm or leg, especially in older children when they receive their fourth or fifth dose.

As with any medicine, there is a very remote chance of a vaccine causing a severe allergic reaction, other serious injury, or death.

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## 5. What if there is a serious problem?

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An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call **9-1-1** and get the person to the nearest hospital.

For other signs that concern you, call your health care provider.

Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or call **1-800-822-7967**. *VAERS is only for reporting reactions, and VAERS staff members do not give medical advice.*

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## 6. The National Vaccine Injury Compensation Program

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The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines. Claims regarding alleged injury or death due to vaccination have a time limit for filing, which may be as short as two years. Visit the VICP website at [www.hrsa.gov/vaccinecompensation](http://www.hrsa.gov/vaccinecompensation) or call **1-800-338-2382** to learn about the program and about filing a claim.

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## 7. How can I learn more?

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- Ask your health care provider.
- Call your local or state health department.
- Visit the website of the Food and Drug Administration (FDA) for vaccine package inserts and additional information at [www.fda.gov/vaccines-blood-biologics/vaccines](http://www.fda.gov/vaccines-blood-biologics/vaccines).
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636 (1-800-CDC-INFO)** or
  - Visit CDC's website at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines).



# Tdap (Tetanus, Diphtheria, Pertussis) Vaccine: *What You Need to Know*

Many vaccine information statements are available in Spanish and other languages. See [www.immunize.org/vis](http://www.immunize.org/vis)

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite [www.immunize.org/vis](http://www.immunize.org/vis)

## 1. Why get vaccinated?

Tdap vaccine can prevent **tetanus, diphtheria, and pertussis**.

Diphtheria and pertussis spread from person to person. Tetanus enters the body through cuts or wounds.

- **TETANUS (T)** causes painful stiffening of the muscles. Tetanus can lead to serious health problems, including being unable to open the mouth, having trouble swallowing and breathing, or death.
- **DIPHTHERIA (D)** can lead to difficulty breathing, heart failure, paralysis, or death.
- **PERTUSSIS (aP)**, also known as “whooping cough,” can cause uncontrollable, violent coughing that makes it hard to breathe, eat, or drink. Pertussis can be extremely serious especially in babies and young children, causing pneumonia, convulsions, brain damage, or death. In teens and adults, it can cause weight loss, loss of bladder control, passing out, and rib fractures from severe coughing.

## 2. Tdap vaccine

Tdap is only for children 7 years and older, adolescents, and adults.

**Adolescents** should receive a single dose of Tdap, preferably at age 11 or 12 years.

**Pregnant people** should get a dose of Tdap during every pregnancy, preferably during the early part of the third trimester, to help protect the newborn from pertussis. Infants are most at risk for severe, life-threatening complications from pertussis.

**Adults** who have never received Tdap should get a dose of Tdap.

Also, **adults should receive a booster dose of either Tdap or Td** (a different vaccine that protects against tetanus and diphtheria but not pertussis) **every 10 years**, or after 5 years in the case of a severe or dirty wound or burn.

Tdap may be given at the same time as other vaccines.

## 3. Talk with your health care provider

Tell your vaccination provider if the person getting the vaccine:

- Has had an **allergic reaction after a previous dose of any vaccine that protects against tetanus, diphtheria, or pertussis**, or has any **severe, life-threatening allergies**
- Has had a **coma, decreased level of consciousness, or prolonged seizures within 7 days after a previous dose of any pertussis vaccine (DTP, DTaP, or Tdap)**
- Has **seizures or another nervous system problem**
- Has ever had **Guillain-Barré Syndrome** (also called “GBS”)
- Has had **severe pain or swelling after a previous dose of any vaccine that protects against tetanus or diphtheria**

In some cases, your health care provider may decide to postpone Tdap vaccination until a future visit.

People with minor illnesses, such as a cold, may be vaccinated. People who are moderately or severely ill should usually wait until they recover before getting Tdap vaccine.

Your health care provider can give you more information.



**U.S. Department of Health and Human Services**  
Centers for Disease Control and Prevention

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## 4. Risks of a vaccine reaction

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- Pain, redness, or swelling where the shot was given, mild fever, headache, feeling tired, and nausea, vomiting, diarrhea, or stomachache sometimes happen after Tdap vaccination.

People sometimes faint after medical procedures, including vaccination. Tell your provider if you feel dizzy or have vision changes or ringing in the ears.

As with any medicine, there is a very remote chance of a vaccine causing a severe allergic reaction, other serious injury, or death.

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## 5. What if there is a serious problem?

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An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call **9-1-1** and get the person to the nearest hospital.

For other signs that concern you, call your health care provider.

Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or call **1-800-822-7967**. *VAERS is only for reporting reactions, and VAERS staff members do not give medical advice.*

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- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636 (1-800-CDC-INFO)** or
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