



# Preventing the Spread of Infections in K-12 Schools

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# Agenda



- Introduction
- How Infectious Diseases Spread
- Infectious Diseases that can be Prevented in K-12 Settings
- Actions to Prevent and Control the Spread of Infections
- Conclusion and Local Resources





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# Introduction

# Introduction



## Schools provide safe environments that support student health and well-being.

- It is important that schools have plans in place that can help reduce illness and illness-related absenteeism by preventing the spread of common infections.
- Reducing illness and student absences also means:
  - Maintaining student access to other important school services,
  - Protecting families of students and staff from infection,
  - Preventing parents, and other caregivers from missing work to care for a sick child, and
  - Preventing staff illness to ensure schools remain fully-staffed.



# Introduction



**Schools should work with their local public health partners and engage parents, caregivers, and other community partners to create an emergency operations plan which includes a section on infectious diseases.**

- Schools should have clear, consistent, and accessible communication between administrators, parents, caregivers, and staff.
- Communication strategies should consider the needs of people with limited English proficiency, who require language services, and individuals with disabilities who require accessible formats.





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# How Infectious Diseases Spread

# How Infectious Diseases Spread



## Germs can spread through:

- **Contact:** A healthy person comes into direct contact with (touches) germs from a sick person.
- **Sprays and splashes:** A sick person coughs, sneezes, or vomits. This creates droplets that carry germs short distances.
- **Inhalation (breathing in):** Small germs can spread through the air and stay in the air for a long time. These germs can be inhaled.
- **Vectors:** Insects such as mosquitoes, ticks, and fleas can spread infections to people and animals.



# How Infectious Diseases Spread



## Infections can spread in schools through:

- Shared objects,
- Close contact with others,
- Students playing closely together,
- Lack of cleaning and disinfection routines and appropriate supplies, and/or
- Lack of proper ventilation.







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# **Infectious Diseases that can be prevented in K-12 settings**

# Infectious Diseases that can be prevented in K-12 settings



- **Viral respiratory illnesses (which affect the lungs and other parts of the respiratory system), including:**
  - COVID-19
  - Influenza
  - Respiratory syncytial virus (RSV)
- **Viral respiratory illnesses can spread from person-to-person when:**
  - An infected person coughs or sneezes.
  - A person gets virus droplets from a cough or sneeze in their eyes, nose, or mouth.
  - A person touches a surface, like a doorknob, that has the virus on it and then touches their face.



# Infectious Diseases that can be prevented in K-12 settings



- **Gastrointestinal (GI) illnesses (which affect the digestive system), including:**

- Norovirus
- Rotavirus



- **GI illnesses spread through:**

- Eating or drinking contaminated food or drink.
- Contact with an infected person, such as sharing food or utensils, eating food handled by them, or changing diapers of a sick child without washing your hands properly afterwards.
- Touching contaminated surfaces or objects, and then touching one's mouth before handwashing.
- Sharing contaminated bathroom surfaces with an infected person.
- Cleaning up vomit or diarrhea from an infected person without proper protective equipment, such as gloves, mask, and covering for clothes.



# Infectious Diseases that can be prevented in K-12 settings



- **Other illnesses, such as:**

- Head Lice
- Pink eye
- Rabies
- Ringworm



# Infectious Diseases that can be prevented in K-12 settings



- **Head lice can spread from person-to-person through:**
  - Head-to-head contact with a person who already has head lice.
  - Wearing clothing, such as hats, scarves, or coats worn by a person with head lice.
  - Using infested combs, brushes, or towels
  - Lying on a bed, couch, pillow, carpet, or stuffed animal that has been in contact with a person with head lice.



# Infectious Diseases that can be Prevented in K-12 Settings



- **Pink eye caused by viruses and bacteria can spread from person-to-person through:**
  - Close personal contact, such as touching or shaking hands.
  - Contact with droplets from the air after an infected person coughs or sneezes.
  - Touching objects and surfaces with germs on them, then touching one's eyes before washing one's hands.



# Infectious Diseases that can be Prevented in K-12 Settings



- **Rabies can spread to people and pets through:**
  - Bites and scratches from an infected animal.
  - An infected animal's saliva getting directly into a person or pet's mucous membranes in the eyes, nose, and mouth.
- **Ringworm of the skin can spread through:**
  - Direct skin contact with people and animals who are infected.
  - Sharing personal items (e.g., towels, clothing, bedding).
  - Contact with moist surfaces, like shower stall or locker room floors.





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# Actions to Prevent and Control the Spread of Infections



# Actions to Prevent and Control the Spread of Infections



**Schools can promote health and supportive environments for in-person learning by implementing comprehensive prevention strategies.**

The Centers for Disease Control and Prevention (CDC) released consolidated, evidence-based guidance for preventing the spread of infections in K-12 settings.

Strategies include:

**Vaccinations**

**Handwashing**

**Respiratory Etiquette**

**Staying Home  
When Sick**

**Safely Handling  
Pets and Animals**

**Safely Visiting Oceans,  
Lakes, and Rivers**



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# Vaccinations

# Why Is It Important?



**All states, the District of Columbia, and territories have vaccination requirements for children attending schools.**

- These requirements are important tools for maintaining high vaccination coverage and low rates of vaccine-preventable disease.



# Stay Up-to-Date on Recommended Vaccinations



Schools can promote equitable access to routine and annual vaccinations, including for influenza and COVID-19 for staff and students.

- Provide information about recommended vaccines to staff, students, and families.
- Promote the safety and effectiveness of vaccines.
- Establish supportive policies and practices that make getting vaccinated easy and convenient. For example, developing a workplace vaccination program, or assisting family members in receiving vaccinations.
- Host on-site/school-located vaccination clinics, or connect eligible students and staff to off-site vaccination locations.



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# Handwashing

# Why Is It Important?



**Washing hands can keep staff and students healthy and prevent the spread of respiratory and gastrointestinal infections.**

Germs can spread from person-to-person, or from surfaces to people, when a person:

- Touches their eyes, nose, and mouth with unwashed hands.
- Prepares or eats food and drinks with unwashed hands.
- Touches surfaces or objects that have germs on them.
- Blows their nose, coughs, or sneezes into hands and then touches other people's hands or common objects.



# Teaching and Reinforcing Proper Handwashing



- Schools should set routines, or schedule opportunities, for handwashing throughout the day.
  - During times of increased illness spread or absenteeism, schools should evaluate hand hygiene routines and increase those opportunities.
- Schools should provide adequate handwashing supplies (e.g., soap, water, and paper towels) within easy reach.
  - If soap and water are not available, hand sanitizer containing at least 60% alcohol can be provided. Store up, and away, from younger children.



# How Staff and Students Should Wash Their Hands



- **Wet hands** with clean, running water (warm or cold), turn off the tap, and apply soap.
- **Lather hands** by rubbing together with the soap. Lather the backs of hands, between fingers, and under nails.
- **Scrub hands** for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
- **Rinse hands** well under clean, running water.
- **Dry hands** using a clean towel or an air dryer.





# Handwashing Video



How to Wash Your Hands Correctly

From a US county public health authority

Share

Wash Hands Before Eating

Watch on YouTube

The image shows a video player interface. The main video frame depicts two young boys in a bathroom, both wearing blue and grey plaid shirts and yellow wristbands, standing at a white sink and washing their hands. A large red play button is centered over the video. The video title "How to Wash Your Hands Correctly" is at the top, with a small circular icon to its left. Below the title is a dark grey box with the text "From a US county public health authority" and a right-pointing arrow. In the top right corner of the video frame, there is a "Share" button with a white arrow icon. At the bottom right of the video frame, there is a blue oval with the text "Wash Hands Before Eating". At the bottom left, there is a black bar with the text "Watch on YouTube" and the YouTube logo.

# How Staff and Students Can Prevent the Spread of Norovirus



- **Wash hands often with soap and water for at least 20 seconds, especially:**
  - After using the toilet or changing diapers.
  - Before eating, preparing, or handling food.
  - Before taking, or giving, someone else medicine.
- **Staff should clean up vomit and diarrhea immediately.**
  - Wear rubber or disposable gloves, wipe the entire area with paper towels, and then throw them in a plastic trash bag.
- **If sick with norovirus, stay home for at least 2 days (48 hours) after symptoms stop.**



# Follow Procedures for Routine Cleaning, Sanitizing, and Disinfecting

- Schools should conduct daily cleaning and sanitizing of surfaces and objects that are often touched (e.g., desks, countertops, doorknobs, computer keyboards, faucet handles, toys).
- Immediately clean surfaces and objects that are visibly soiled with blood or other body fluids.
  - Use gloves and other personal protective equipment.
  - Wipe, or soak up, the blood or body fluid; clean; and then disinfect the surface.
- Refer to local policy/regulation for procedures on disinfecting specific areas of the schools (e.g., food service areas, bathrooms).



# Key Takeaways



**Encourage staff and students to practice healthy habits, like washing their hands often and keeping surfaces and objects clean.**

**Many diseases and conditions can be spread if staff and students do not wash their hands with soap and water.**

**Having staff and students wash their hands with soap and water is one of the best ways to stay healthy.**

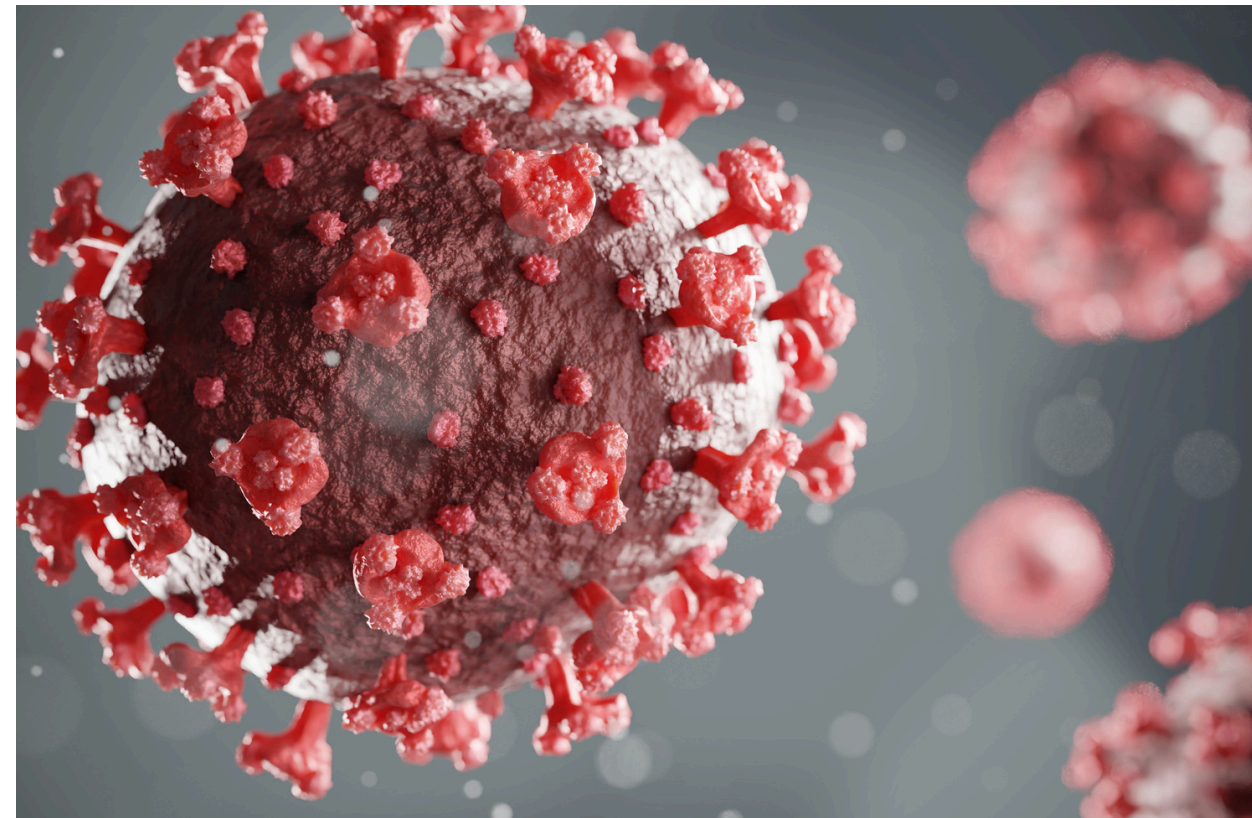
**Schools should also conduct daily cleaning and sanitizing of surfaces.**



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# Respiratory Etiquette

# Why Is It Important?



**Schools can teach and reinforce respiratory etiquette to help keep staff and students from getting and spreading respiratory viruses.**

Respiratory viruses include, but are not limited to:

- COVID-19,
- Influenza,
- Pertussis (whooping cough), and
- Respiratory syncytial virus (RSV).



# Teach and Reinforce Proper Respiratory Etiquette for Staff and Students



Staff and students should always:

- Cover their mouth and nose with a tissue when they cough or sneeze.
- If staff or students do not have a tissue, they should cough or sneeze into their elbow, not their hands.
- Throw away used tissues in the trash.
- Turn or walk away to cough or sneeze.
- Wash their hands, or use hand sanitizer, after blowing their nose, coughing, or sneezing.



# Wear a Mask



- Staff and students can also consider wearing a high-quality, well-fitting face mask to help reduce the spread of respiratory germs.
- Masks create a barrier between infected droplets or particles a person breaths out into the air.
- Masks also help limit the breathing in of droplets that may be put into the air from another person.





# Take Steps for Cleaner Air



- Improving air quality can reduce the number of germs in the air.
  - This can be done by increasing airflow, cleaning the air, or moving gatherings outdoors.
- Cleaner air can reduce the likelihood of disease spread, particularly respiratory viruses.

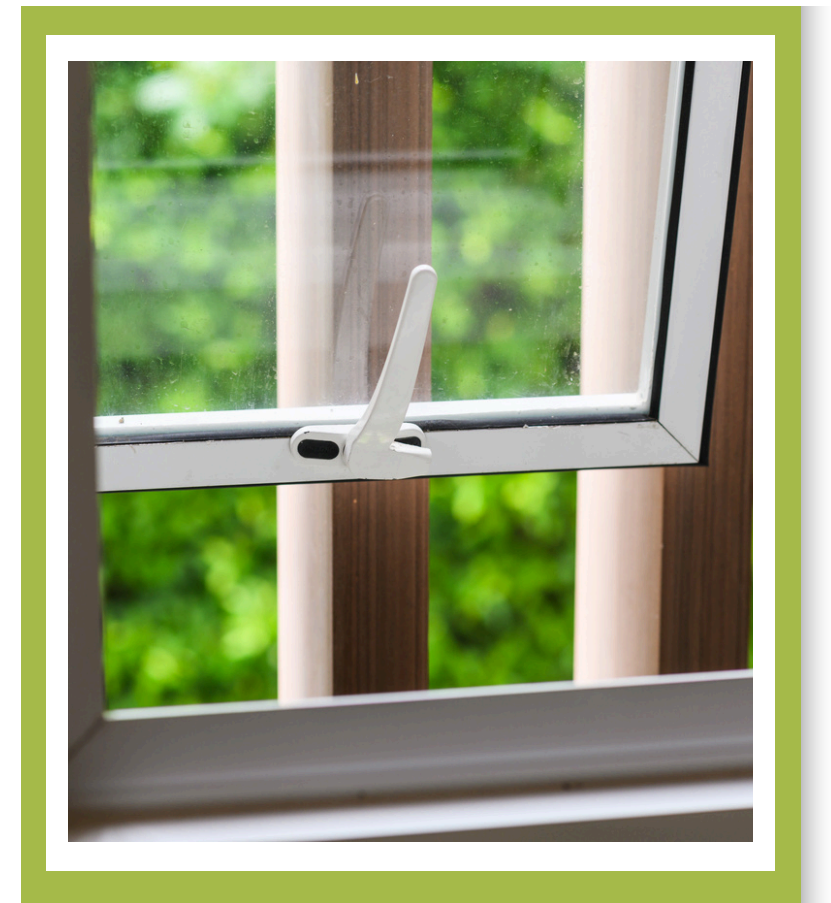


# Take Steps for Cleaner Air



Schools should implement strategies to have cleaner air.

- Ensure existing HVAC systems are providing the minimum outdoor air ventilation requirement in accordance with ventilation design codes.
- Consider ventilation design, or enhancements, when remodeling or constructing new buildings.
- Open windows, as possible.
  - Use fans to increase the effectiveness of open windows to help draw outdoor air into classrooms and other spaces.
- Use portable air cleaners in spaces with low ventilation.
- Hold some activities outside, such as lunch or social periods.
- Keep bus windows open when it does not create a safety or health hazard.





# Key Takeaways

**Practice proper respiratory etiquette to keep staff and students from getting sick.**

**Cover coughs and sneezes and keep hands clean to help prevent the spread of respiratory illnesses.**

**Wear a mask to help reduce the spread of respiratory germs in schools.**

**Stay up-to-date on recommended vaccines.**



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# Staying Home When Sick

# Why Is It Important?



## Schools can expect that children and staff will get sick during the school year.

- Schools, parents, and caregivers often do not know what specific illness a child may have, so it is best to stay home.
- Staying home when sick can lower the risk of spreading infections to other students and staff.
- Schools must balance the risk of infectious disease spread with educational, social, and mental health needs of children when deciding when students should stay home.



# Encourage Students and Staff to Stay Home When Sick



- Schools can establish policies and practices that support having students and staff stay home when sick.
- Schools can:
  - Allow flexible, paid sick leave for staff.
  - Set policies to accommodate individuals who are sick and avoid incentivizing coming to school or work while sick.
  - Support children who are learning at home because they are sick.



# When to Stay Home from School



Staff and students should stay home if they have any of the following symptoms:

- Fever, including a fever with a new rash.
- Vomiting more than twice in the next 24 hours.
- Diarrhea that causes 'accidents', is bloody, or results in greater than two bowel movements above what the child normally experiences in a 24-hour period.
- Skin sores that are draining fluid on an uncovered part of the body and are unable to be covered with a bandage.
- Respiratory virus symptoms that are worsening or not improving.



# When to Return to School



Staff and students can return to school when:

- Fever free (and not using fever-reducing medicine) for at least 24 hours.
- Fever with a new rash has been looked at by a healthcare provider and fever has resolved.
- Uncovered skin sores are crusting, and they are under treatment of a medical provider.
- Vomiting has resolved overnight and they can hold down food/liquids in the morning.
- Diarrhea has improved, person is no longer having accidents, or having bowel movements more than 2 per 24-hours for a child.
- Respiratory virus symptoms are getting better for at least 24 hours.





# Key Takeaways



**Encourage staff and students to stay home when sick.**

**Staying home when sick can prevent the spread of diseases to staff and students.**

**Schools should develop policies for common illnesses so staff and students know when to stay home.**

**Staff and students should return to school when their symptoms improve.**



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# Safe Handling of Pets and Animals

# Why Is It Important?



**Pets and animals can sometimes carry harmful germs that can make us sick even when they appear healthy.**

- People can come in contact with pets and animals at home, petting zoos, fairs, schools, stores, and parks.
- The diseases people get from animals are called zoonotic diseases.
- Knowing how to safely handle pets and animals can prevent the spread of zoonotic diseases.

# Encourage the Safe Handling of Pets and Animals



- Schools can supervise children around pets.
- Schools can encourage children not to:
  - Kiss their pets,
  - Hold pets close to their faces, or
  - Allow pets to lick their face or mouth.



# Properly Handle Pets and Animals



Staff and students should:

- Always wash their hands after handling or being around animals or their waste, food, or supplies.
- Keep pets and their supplies out of the kitchen or other areas where you prepare, serve, or eat food.
- Clean up after animals properly.
- Report any sick, injured, or dead animals found on campus. Do not touch or pick up.



# Properly Handle Pets and Animals



- Avoid rough play with animals to prevent bites and scratches.
- Clean bites and scratches immediately with soap and water, and seek medical care if:
  - The wound is serious or becomes red, painful, warm, or swollen;
  - The animal appears sick; or
  - If you do not know the vaccination status of the animal.
- Enjoy wildlife from a safe distance.



# Key Takeaways



**There are many health benefits of owning a pet, however, pets can sometimes carry harmful germs that can make us sick even when the pet appears healthy.**

**Zoonotic diseases are caused by germs that spread between animals and people.**

**Young children, older adults, and people with weakened immune systems are more likely to get sick from these germs.**

**Practice healthy habits to stay healthy while enjoying pets and other animals.**



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# Safely Visiting Oceans, Lakes, and Rivers



# Why Is It Important?



**Water from natural bodies of water like oceans, lakes, or rivers, can have germs that make us sick.**

- Germs found in the water and sand often come from human or animal feces (poop).
- Germs can be carried into swim areas by heavy rain, or from humans or animals pooping in or near the water.
- Water contaminated with these germs can make a person sick if swallowed. It can also cause an infection if someone gets into the water with an open cut or wound.

# Encourage Safety When Visiting Oceans, Lakes, and Rivers



- Schools should encourage students not to:
  - Swallow the water.
  - Put sand in their mouth.
  - Poop in the water.
- Every hour, schools can take kids on bathroom breaks.
- Children in diapers should use product(s) designed for water use.



# How to Safely Visit Oceans, Lakes, and Rivers



Staff and students should:

- Check online to find out if the swim area is currently monitored, under advisory, or closed for health or safety reasons.
- Wash hands for 20 seconds before eating food, especially if they have been playing in or touching sand.
- If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol.



# When to Stay Out of the Water



Staff and students should stay out of the water if:

- Signs say the swim area is closed.
- The water looks cloudier than usual, is discolored, or smells bad.
- There are heavy rains and/or floods. Rain water and flood water can be contaminated with human and animal poop.
- They see any pipes draining into or around the water.
- They are sick with diarrhea.
- They have an open cut or wound (especially from a surgery or piercing).



# Key Takeaways



**Spending time in oceans, lakes, and rivers can help people stay active, but the water people swim, play, and relax in can also spread germs.**

**Swallowing water from natural bodies of water like oceans, lakes, or rivers can make a person very sick.**

**If contaminated water gets into an open cut or wound it may lead to an infection.**

**Taking a few steps when visiting these places can help protect everyone from germs.**

***Note: Inhaling aerosolized oceans, lakes, or river water cannot give you gastrointestinal illnesses.***



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# Conclusion and Local Resources

# Conclusion



**Everyday actions help keep staff and students healthy by minimizing the spread of infections in school settings.**

- Having strategies in place can help prevent the spread of common illnesses (e.g., gastroenteritis, colds, influenza) and maximize school participation.
- The below actions can help prevent the spread of an infection:
  - Stay up-to-date on vaccinations.
  - Wash hands.
  - Clean, sanitize, and disinfect.
  - Take steps for cleaner air.
  - Follow respiratory etiquette.
  - Safely handle pets and animals.
  - Safely visit oceans, lakes, and rivers.
  - Staying home when sick.

# Local Resources



## County of San Diego:

- COVID-19 Community Sector Support: K-12 Sector
- K-12 Disease and Vaccine Educational Materials
- Measles (Rubeola)
- Public Health Investigation and Response:  
South Region Gastrointestinal Illness Concerns
- Respiratory Viruses (COVID-19, Flu, and RSV)
- San Diego County Air Pollution Control District





# Thank You!



## Contact Us



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**[SIDPRP Website](#)**



*The Public Health Services department, County of San Diego Health and Human Services Agency, has maintained national public health accreditation, since May 17, 2016, and was re-accredited by the Public Health Accreditation Board on August 21, 2023.*





# Any Questions?



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