

Is That Contagious ?



What's Coming Into Your Clinic ?

- Shingles - "Chicken Pox Virus"
- Conjunctivitis
- HIV /AIDS
- Hepatitis
- EKC/Vernal/Viral
- TB



"Shingles" - Chicken Pox Virus

A person with active shingles can spread the virus when the rash is in the **blister** phase. A person is *not* infectious before the blisters appear.

Once the rash has developed crusts, the person is no longer contagious.



Practo.com

Shingles is a **painful** rash that develops on one side of the face or body. The rash consists of blisters that typically scab over in 7 to 10 days and will usually clear up within 2 to 4 weeks.



Before the rash develops, people often have pain, itching, or tingling in the area where the rash will develop. This may happen anywhere from 1 to 5 days before the rash appears.

The virus that causes shingles, varicella zoster virus, can spread from a person with active shingles to cause chickenpox in someone who never had chickenpox or received chickenpox vaccine. The virus is spread **through direct contact with fluid from the rash blisters**.



findatopdoc.com

Once the rash develops crusts, the person is no longer considered infectious.



HSV-1 causes cold sores and HSV-2 causes genital herpes.

diseasespictures.com

Hutchinson Sign

"Vesicles" on the tip of the nose precedes the development of ophthalmic herpes zoster.

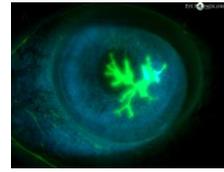
Myth ???? When the tip of the nose is involved, the cornea of the eye is affected by shingles. This occurs "because the nasociliary branch of the

Trigeminal nerve (CN V Facial) innervates both the cornea and the side of the nose !

When this happens, it is called zoster keratitis. The keratitis can cause scarring and in severe cases, blindness



MEDICINET.COM



It begins with an epithelial infection of the eye & corneal nerves. Primary infection usually begins as a swelling of the eye conjunctiva and eyelids accompanied by white, itchy lesions on the corneal surface. The lesions can cause minor damage to the epithelium (superficial punctate keratitis), to more serious damage such as dendritic ulcers. Infection is unilateral, affecting one eye at a time.

lookfordiagnosis.com

Herpes Dendrite

Patients with HSV Keratitis may complain of the following:

- * Pain
- Photophobia
- Blurred vision
- Tearing
- Redness



Medlinks.blogspot.com

Zostavax Vaccine

Zoster vaccines includes a number of vaccines that have been shown to reduce the incidence of herpes zoster. Herpes zoster vaccine is effective in preventing herpes zoster disease for a period of up to three years .

The CDC recommends that the live vaccine be given to all adults age 60 and over, *including those who have had a previous episode of shingles*, since more than **99 %** of Americans ages **40 and older** have had chickenpox .

(Wikipedia)



CONJUNCTIVITIS

Viral conjunctivitis is highly contagious. Most viruses that cause conjunctivitis spread through hand to eye from handling objects that are contaminated with the virus. Having contact with infectious tears, eye discharge, fecal matter, or respiratory discharges can contaminate hands



lookfordiagnosis.com

Viral conjunctivitis can also spread during a respiratory tract infection because of coughing.

Epidemic Keratoconjunctivitis (EKC), is a severe type of conjunctivitis, and is commonly caused

by contact infection With a patient that has adenovirus .

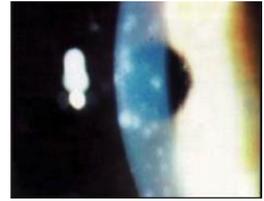


ocreyemd.com



People with EKC usually complain of

a sudden onset of eye redness, irritation, soreness, light sensitivity and excessive tearing. Some people with the infection say that it feels like they have sand and/or foreign body sensation in the eye. Both the eye, and eyelids, can become swollen, red and irritated. The viral infection usually involves one eye first, then eventually infects the other eye.



A subepithelial infiltrate can appear as a whitish area on the cornea that can temporarily reduce vision.

Some people may also have swollen lymph nodes in front of the ear. Patients sometimes develop a mucus-type membrane called a pseudomembrane on the tissue under the lower eyelid on the conjunctiva

studyblue.com

Viral Conjunctivitis: "Pink Eye"

Viral conjunctivitis is a common, **self limiting** condition that is typically caused by **adenovirus**.

Viral conjunctivitis is **highly contagious**, usually lasting 10-12 days from onset and is active as long as the eyes are red.

Patients should avoid touching their eyes, shaking hands, and sharing towels, napkins, or pillow cases.



incolors.club

Transmission of the virus can occur through contact with the virus from the infected patient's hands or by contact with respiratory droplets, infection usually resolves spontaneously within 2-4 weeks.



Patients should be instructed to use cold compresses and lubricants,

such as **chilled** artificial tears, for comfort. Topical vasoconstrictors and antihistamines *may* be used for severe itching but generally are not prescribed.



Chlamydial Conjunctivitis

In newborns, the infection can occur in infants born to mothers with chlamydia because they pick it up coming through the birth canal.

Symptoms develop 5 to 12 days after birth. The infant often also has the infection else in their body (i.e. lungs). Presents with a mucopurulent discharge, +++ lid swelling, and red, thickened lids



studyblue.com

Trachoma: Leading Cause of Blindness In The World

A chronic *follicular* bacterial conjunctivitis caused by *Chlamydia Trachomatis* that is transmitted from person to person through contact with discharge from the eyes or nose of an **infected person**, through shared items, or by in areas where hygiene is poor. +++ FLIES in poor nations.

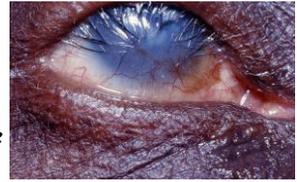
This causes scarring of the eyelid, conjunctiva, and cornea. Repeat infections occur in children younger than 10 years of age



byebyedoctor.com

" Trachoma is the leading preventable cause of blindness

worldwide. The World Health Organization (WHO) estimates that 6 million people have been blinded by trachoma. Most blinding trachoma occurs in poor areas of Africa. Among children under 5, prevalence of active trachoma infections can be 60 percent or more."



theconversation.com

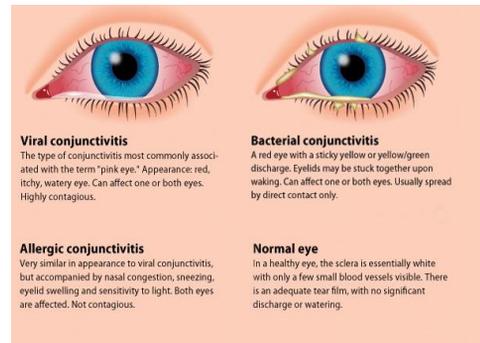
Bacterial Conjunctivitis

Acute bacterial conjunctivitis is the most common form of bacterial conjunctivitis in outpatient healthcare settings.

Patients need to be brought from the waiting room back upon arrival to prevent waiting room contamination !!!!!



goldbamboo.com



lenspick.com

- Can be caused by
- *Staphylococcus aureus*,
- *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*, or *Chlamydia trachomatis* and *Neisseria gonorrhoeae* (CDC.org)
- **Can be spread easily and is the leading cause of children being absent from daycare or school**
- More common in kids than adults



Prevention is partly by handwashing. Treatment depends on the underlying cause. In the majority of viral cases, there is no specific treatment.



IF You Have Conjunctivitis...what should you do to prevent spreading it ??

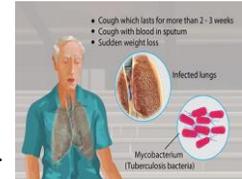
- **Wash your hands often with soap and warm water.** Wash them especially well before and after cleaning, or applying eye drops or ointment to, your infected eye. If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol to clean hands.
- Avoid touching or rubbing your eyes.
- With clean hands, wash any discharge from around your eye(s) several times a day using a clean, wet washcloth or fresh cotton ball. Throw away cotton balls after use, and wash used washcloths with hot water and detergent, then wash your hands again with soap and warm water.
- Do not use the same eye drop dispenser/bottle for your infected and non infected eyes.
- Wash pillowcases, sheets, washcloths, and towels often in hot water and detergent
- Stop wearing contact lenses until your eye doctor says it's okay to start wearing them again.
- Do not share personal items, such as pillows, washcloths, towels, eye drops, eye or face makeup, makeup brushes, contact lenses, contact lens storage cases, or eyeglasses.
- Do not use swimming pools.

CDC.org

Is TB contagious ?

Pulmonary TB (*Mycobacterium tuberculosis*)

is contagious. It spreads when a person who has active TB exhales and another person inhales the bacteria. Coughing, sneezing or even laughing, can also release bacteria.



Not everyone infected with TB bacteria becomes sick. They can be carriers.

Wikipedia.com



Tuberculosis germs don't thrive on surfaces.

You can't get TB by:

- * Giving an infected person a hug or a kiss
- * Using the same toothbrush
- * Eating or drinking after an infected person
- * Shaking hands
- Sharing clothing, a bed, or towels
- Using the same toilet as an infected person

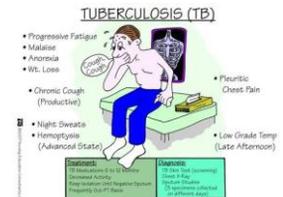


Signs and Symptoms

Symptoms include: fever, chills, night sweats, loss of appetite, weight loss, and fatigue. May also include chest pain and a prolonged cough producing sputum.

Occasionally, people can cough up small amounts of blood

About 25% of people may not have any symptoms.



healthtuberculosis.weebly.com

Other Risk Factors for TB

- Overcrowded Conditions
 - Nursing homes, Rehabilitation Facilities and Hospitals
 - Homeless shelters
 - Drug treatment centers and Prisons
- People with Altered Immune Functions
 - Older Adults
 - People with AIDS
 - People on Chemotherapy

Slideshare.com

Latent TB

A patient that has *latent* TB often usually doesn't feel sick nor do they have any symptoms. They are infected with *M. tuberculosis*, but **do not have** TB disease.

The only sign of TB infection is a positive reaction to the tuberculin skin test or TB blood test. **Persons with latent TB infection are not infectious and cannot spread TB infection to others.**

Overall, without treatment, about 5 to 10% of infected persons will develop TB disease at some time in their lives. About half of those people who develop TB will do so within the first two years of infection.

CDC.org

LTBI vs. TB Disease

Latent TB Infection (LTBI)	TB Disease (in the lungs)
Inactive, contained tubercle bacilli in the body	Active, multiplying tubercle bacilli in the body
TST or blood test results usually positive	TST or blood test results usually positive
Chest x-ray usually normal	Chest x-ray usually abnormal
Sputum smears and cultures negative	Sputum smears and cultures may be positive
No symptoms	Symptoms such as cough, fever, weight loss
Not infectious	Often infectious before treatment
Not a case of TB	A case of TB

Module 1 – Transmission and Pathogenesis of Tuberculosis

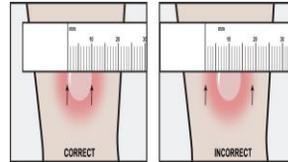
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Slideshare.net

Mantoux Test



Mantoux Test



tbskintesting.weebly.com

Wikipedia.com

GUIDELINES FOR PPDs



PPDs Must Be **PPD** After 48 to 72 Hours

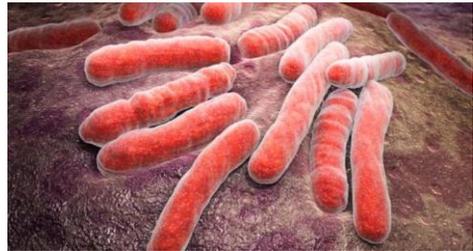
Positive Findings
(Area of Induration- Swelling Size Measured, not Redness)

- >15mm** • General Public Without Known Risk Factors
- >10mm** • Residents and Employees of Long-Term Care Facilities, IV Drug Abusers and Recent Immigrants (< 5yrs)
- >5mm** • HIV +, Recent Contact With Active TB, Immunocompromised

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tumview.com

“Red Snappers”



Dailymail.co.uk

Hepatitis

Hepatitis is an inflammation of the **liver**. It can be self-limiting (like Hepatitis A) or can progress to liver cancer. Hepatitis viruses are the most common cause of hepatitis in the world but other infections, toxic substances (alcohol, drugs), and/or autoimmune diseases can also cause hepatitis.



WHO.org

Symptoms of Hepatitis

A	<ul style="list-style-type: none"> Fever Fatigue Loss of Appetite Nausea Weakness Body and abdominal pain Jaundice 		
B	<ul style="list-style-type: none"> Constant high fever Swelling (with blood) Fatigue Green body pain No Appetite Nausea Jaundice 	<ul style="list-style-type: none"> Lack of interest in anything Lack of sex drive Yellow or dark urine Clay colored stool 	
C	<ul style="list-style-type: none"> Fever Exhaustion Body pain Weakness Yellow or dark yellow urine Lack of hunger Jaundice 	<ul style="list-style-type: none"> Pain in eyes (behind eyes) Headache 	
D	<ul style="list-style-type: none"> Worsened course of Hep B Very high temperature Transaminase Acute body pain Frequent vomiting Abdominal pain Jaundice 	<ul style="list-style-type: none"> Can develop into individuals suffering from Hep B 	
E	<ul style="list-style-type: none"> Same as Hep A Constant fever Fatigue No hunger Weakness Body and abdominal pain Jaundice 		

reallab.net

Hepatitis A and E are typically caused by ingestion of contaminated food or water with feces. **Hepatitis B, C and D** usually occur as a result of contact with infected body fluids. Common modes of transmission for these viruses include receipt of contaminated blood or blood products, invasive medical procedures using contaminated equipment and for hepatitis B transmission from mother to baby at birth, from family member to child, and also by sexual contact.

HIV/AIDS

HIV (human immunodeficiency virus) is a retro virus that lives in your system and can lead to systemic infection. It infects humans only by attacking the immune system, making it unable to work efficiently.

AIDS is the condition or syndrome. Being infected with HIV *can lead* to AIDS (acquired immunodeficiency syndrome).



cders.org

Infections Related to HIV/AIDS

**** Tuberculosis (TB).** TB is the most common opportunistic infection associated with HIV. It's a leading cause of death among people with AIDS.

**** Cytomegalovirus.** Virus is transmitted in body fluids (saliva, blood, urine, semen and breast milk). A healthy immune system inactivates the virus, and it remains dormant in your body. When the immune system weakens, the virus re-activates causing damage throughout your systems/ organs (including the eye).



ophthnotes.com

**** Kaposi's sarcoma.**

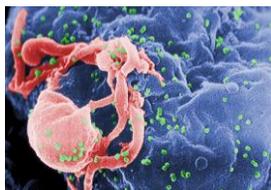
This cancer is rare in people *not* infected with HIV, but *common* in HIV positive people. Usually appears as pink, red or purple lesions on the skin and mouth. In darker skinned people, the lesions may look dark brown or black. Kaposi's sarcoma can also affect the Lungs and internal organs.



goopixie.com

While you can have an HIV infection without having AIDS, people diagnosed with AIDS have HIV.

Because there is no cure, the HIV infection never goes away, even if AIDS never develops.



HIV-1 budding (in green) from cultured lymphocyte... wikipedia.com

HIV is transmitted from one person to another through the exchange of bodily fluids. Most commonly, infection is transmitted through unprotected sex or through using contaminated needles. Less commonly, one can become infected through a tainted blood transfusion or a mother can pass the infection to her child during pregnancy. While it can live on an inanimate surface.... It is only for an extremely short period of time after it comes into contact with oxygen and outside air.

