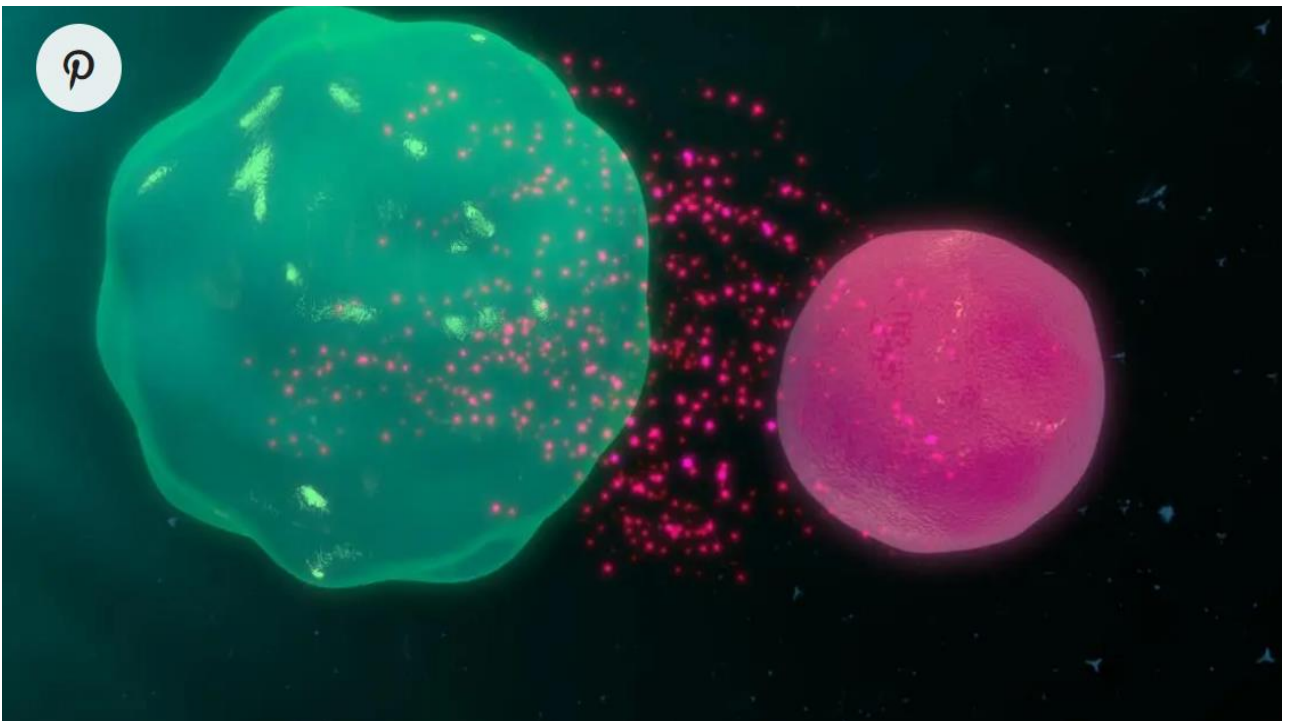


# *Specific infection*

## What to know about infections

- An infection occurs when a microorganism — such as bacteria, fungi, or a virus — enters a person's body and causes harm. In many cases, the immune system can stop these pathogens from multiplying in the body. If not, serious damage can result.
- The microorganism uses that person's body to sustain itself, reproduce, and colonize. These infectious microscopic organisms are known as pathogens, and they can multiply quickly.



## They can spread in several different ways, including through:

- skin contact
- the transfer of bodily fluids
- contact with feces
- ingesting contaminated food or water
- inhaling airborne particles or droplets
- touching an object that a person carrying the pathogen has also touched

## Types

- Bacteria, viruses, fungi, and parasites are different types of pathogens. They vary in several ways, including:
  - size
  - shape
  - function
  - genetic content
  - how they act on the body

## Some examples of bacterial infections are:

- bacterial meningitis
- otitis media
- pneumonia
- tuberculosis
- upper respiratory tract infection (although this is usually viral)
- gastritis
- food poisoning
- eye infections
- sinusitis (again, more often viral)
- urinary tract infections (UTIs)
- skin infections
- sexually transmitted infections (STIs)

## Prevention

- Wash the hands often, especially before and after preparing food and after using the bathroom.
- Clean surface areas and avoid keeping perishable food at room temperature for too long while preparing a meal.
- Receive any recommended vaccinations and keep them up to date.
- Only take antibiotics with a prescription and be sure to complete the recommended course, even if symptoms improve at an earlier stage.

## Tuberculosis(TB):

Is fatal contagious disease that affects the lungs and other part of body which is a public health problem but curable and preventable disease.

Caused organism: Bacteria (**Mycobacterium** tuberculosis).



## Type

1-Primary : for the first time (pediatric)

Moderate lymph node infection

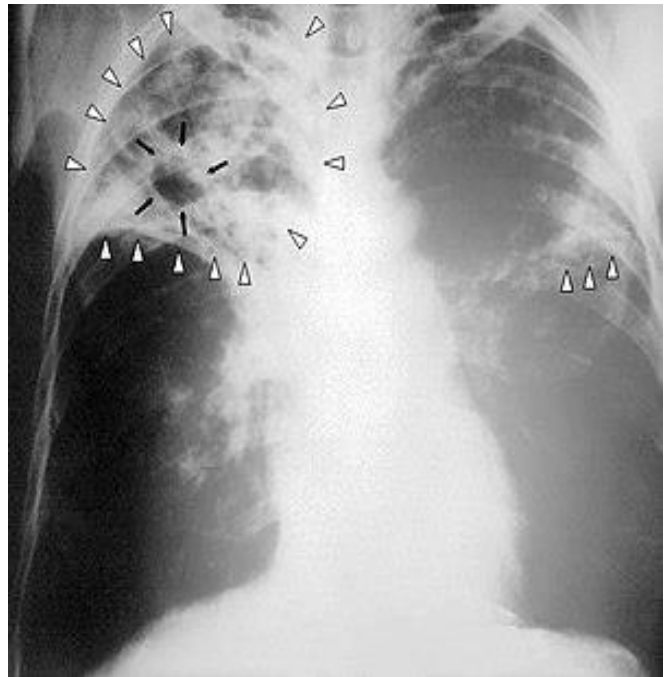
2- Secondary: for the 2nd time infection (adult)



## Types of site infection

- 1-Pulmonary TB.
- 2-Extra pulmonary TB.

Pulmonary TB is a contagious bacterial infection that involves the lungs.



- 2-TB of the bone and the joint.
- 3-TB of the central nervous system.



## Mode of disease transmission

Airborne: TB is from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.

## Symptoms of TB

- 1-Cough more 3 weeks.
- 2-Chest pain.
- 3-Fatigue.
- 4-Coughing up blood.
- 5-Feeling tired all the time.
- 6-Night sweats.
- 7-Chills.
- 8-Fever
- 9-Loss of appetite.
- 10-Weight loss.

## Most at risk

- 1-People who are infected with HIV.
- 2-Low immune system.
- 3-People with under nutrition 3 times mores at risk.
- 4-Alcohol user.
- 5-Smoking.

## TB diagnosed

- Chest X-ray. •
- Sputum test. •

## Tuberculosis complications

1. Spine pain where back pain and stiffness appear.
2. Joint damage;
3. Swelling of the membranes covering the brain, causing meningitis.
4. Liver or kidney problems.
5. Heart disorders;



## Treatment

**Antibiotics**(Group1 INH, Rifampicin, Pyrazinamide),  
Group2(Para amino salicylic, Ciprofloxacin, Amikacin)

The treatment protocol is from six to twelve months, taking into account the periodic examination of **liver function**.

## Prevention

- 1-BCG Vaccine
- 2-Personal hygiene.
- 3-Environment sanitation.
- 4-Isolation of patient.
- 5-Ventilation.
- 6-Promote for breast feeding.

# Tetanus

Tetanus is a dangerous disease caused by a bacteria called **clostridium tetani** that surrounds itself with a sheath called **spores**, which gives it resistance to heat, drought, and many sterilizers so that the spores can withstand boiling for 15 minutes.

These spores are found everywhere in the environment, whether they are in the soil, in fertilizers or in animal droppings, in almost everything that surrounds us.

These germs live for a long time outside the human body

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## How does the injury happen?

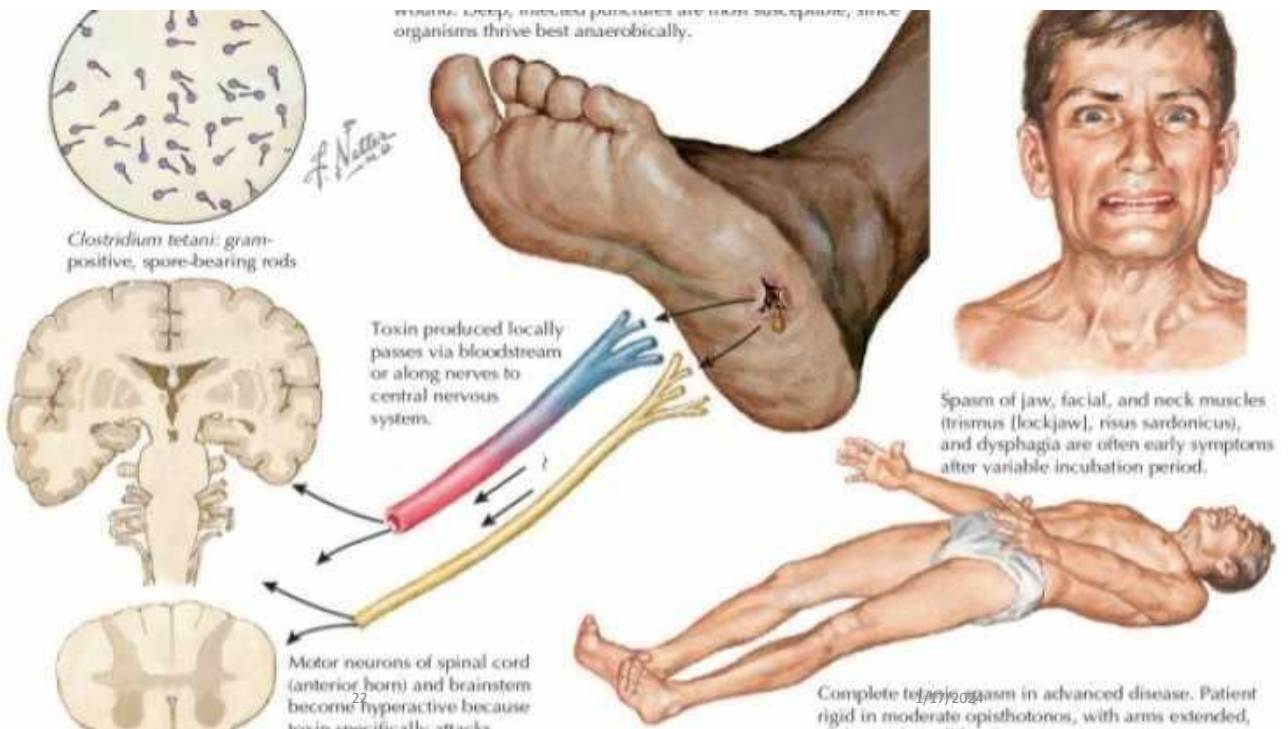
For example, when you get a foot injury with an old nail, this area are far from the heart, the wound is poorly ventilated because the tetanus bacteria are **anaerobic**. These germs enter the human body and activate and begin to spread toxins.

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It is one of the most dangerous types of toxins called **tetanospasmin**, and this poison is responsible for contractions of the muscles of the entire body in addition to the pain that occurs with these spasms. body to the extent that it may lead to **fractures and dislocation** of bones, This toxin travels from the affected area to the spinal cord of the affected person and binds to the nervous system and initiates symptoms. All this is done **within 2-14 days**.



## Types of tetanus:

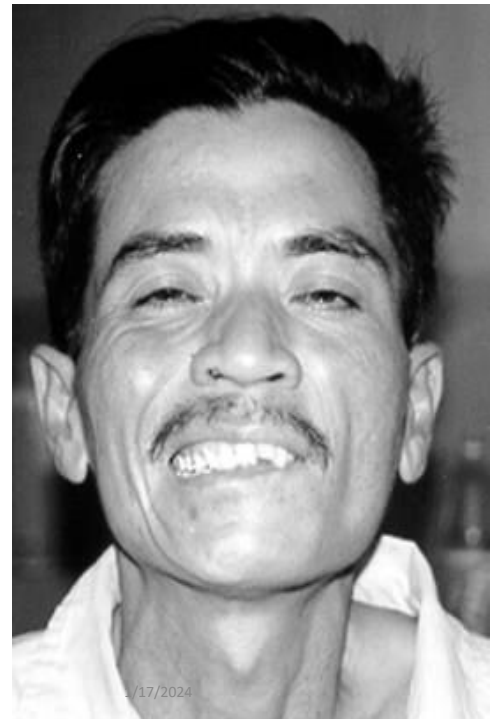
### 1-Generalized tetanus:

It is a full body muscle spasm.



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**2-Cephalic tetanus:** This results from an external injury to the head, and most often only the **seven nerves** are injured. It can turn into a generalized tetanus.



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**3-Localized tetanus:** That is, it affects one muscle or a group of muscles in one part of the body.

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**4-Neonatal tetanus:** Tetanus infection occurs during childbirth, due to non-sterilization of surgical instruments. Or not take the tetanus vaccine during pregnancy. 90% of children die, but the rest live with permanent disability.

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## Tetanus cases have developed from the following:

1. Puncture wounds — including from splinters, body piercings, tattoos and injection drugs
2. Gunshot wounds
3. Compound fractures
4. Burns
5. Surgical wounds
6. Injection drug use
7. Animal or insect bites
8. Infected foot ulcers
9. Dental infections
10. Infected umbilical stumps in newborns born of inadequately vaccinated mothers

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## Symptoms

1. Spasms and stiffness in your jaw muscles.
2. Stiffness of neck muscles
3. Difficulty swallowing
4. Stiffness of abdominal muscles
5. Painful body spasms lasting for several minutes, typically triggered by minor occurrences, such as a draft, loud noise, physical touch or light

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## Others Symptoms

Possible other signs and symptoms include:

1. Fever
2. Sweating
3. Rapid heart rate

## Complications

1. Breathing difficulties
2. A lung artery blockage (pulmonary embolism)
3. Pneumonia
4. Bone fractures
5. Death