Skin Infection

A skin infection is an infection of the skin. Infection of the skin is distinguished from dermatitis, which is inflammation of the skin, but a skin infection can result in skin inflammation. Skin inflammation due to skin infection is called infective dermatitis.

Bacterial

Bacterial skin infections include:

Impetigo is a highly contagious bacterial skin infection most common among pre-school children. It is primarily caused by Staphylococcus aureus, and sometimes by Streptococcus pyogenes.

Erysipelas is an acute streptococcus bacterial infection of the deep epidermis with lymphatic spread.

Cellulitis is a diffuse inflammation of connective tissue with severe inflammation of dermal and subcutaneous layers of the skin. Cellulitis can be caused by normal skin flora or by exogenous bacteria, and often occurs where the skin has previously been broken: cracks in the skin, cuts, blisters, burns, insect bites, surgical wounds, intravenous drug injection or sites of intravenous catheter insertion. Skin on the face or lower legs is most commonly affected by this infection, though cellulitis can occur on any part of the body.

Fungal

Fungal skin infections may present as either a superficial or deep infection of the skin, hair, and/or nails. They affect about one billion people globally, as at 2010.

Parasitic infestations, stings, and bites

Parasitic infestations, stings, and bites in humans are caused by several groups of organisms belonging to the following phyla: Annelida, Arthropoda, Bryozoa, Chordata, Cnidaria, Cyanobacteria, Echinodermata, Nemathelminthes, Platyhelminthes, and Protozoa.
Viral

Virus-related cutaneous conditions are caused by two main groups of viruses—DNA and RNA types—both of which are obligatory intracellular parasites.

Athlete’s Foot

Athlete’s foot is a very common infection. The fungus grows best in a warm, moist environment such as shoes, socks, swimming pools, locker rooms, and the floors of public showers. It is most common in the summer and in warm, humid climates. It occurs more often in people who wear tight shoes and who use community baths and pools.

What causes Athlete’s Foot?

Athlete’s foot is caused by a microscopic fungus that lives on dead tissue of the hair, toenails and outer skin layers. There are, at least, four kinds of fungus that can cause athlete’s foot. The most common of these fungi is trichophyton rubrum.

What are the symptoms of Athlete’s Foot?

Signs and symptoms of athlete’s foot vary from person to person. However, common symptoms include:

- Peeling, cracking, and scaling of the feet
- Redness, blisters, or softening and breaking down of the skin
- Itching, burning, or both

Types of Athlete's Foot

Interdigital: Also called toe web infection, this is the most common kind of athlete’s foot. It usually occurs between the two smallest toes. This form of athlete’s foot can cause itching, burning, and scaling and the infection can spread to the sole of the foot.

Moccasin: A moccasin-type infection of athlete's foot can begin with a minor irritation, dryness, itching, or scaly skin. As it develops, the skin may thicken and crack. This infection can involve the entire sole of the foot and extend onto the sides of the foot.

Vesicular: This is the least common kind of athlete’s foot. The condition usually begins with a sudden outbreak of fluid-filled blisters under the skin. Most often, the blisters develop on the underside of the foot. However, they also can appear between the toes, on the heel, or on the top of the foot.

How is Athlete’s Foot diagnosed?

Not all itchy, scaly feet have athlete’s foot. The best way to diagnose the infection is to have your doctor scrape the skin and examine the scales under a microscope for evidence of fungus.
How is Athlete's Foot treated?

Athlete's foot is treated with topical antifungal medication (a drug placed directly on the skin) in most cases. Severe cases may require oral drugs (those taken by mouth). The feet must be kept clean and dry, since the fungus thrives in moist environments.

How is Athlete's Foot prevented?

Steps to prevent athlete's foot include wearing shower sandals in public showering areas, wearing shoes that allow the feet to breathe, and daily washing of the feet with soap and water. Drying the feet thoroughly and using a quality foot powder can also help prevent athlete's foot.

Jock Itch

Jock itch, also called tinea cruris, is a common skin infection that is caused by a type of fungus called tinea. The fungus thrives in warm, moist areas of the body and as a result, infection can affect the genitals, inner thighs, and buttocks. Infections occur more frequently in the summer or in warm, wet climates. Jock itch appears as a red, itchy rash that is often ring-shaped.

Is Jock Itch contagious?

Jock itch is only mildly contagious. The condition can be spread from person to person through direct contact or indirectly from objects carrying the fungus.

What are the symptoms of Jock Itch?

- Itching, chafing, or burning in the groin or thigh
- A circular, red, raised rash with elevated edges
- Redness in the groin or thigh
- Flaking, peeling, or cracking skin

How is Jock Itch diagnosed?

In most cases, jock itch can be diagnosed based on the appearance and location of the rash. If you are not certain that the condition is jock itch, contact your doctor. The doctor will ask about your symptoms and medical history, and will perform a physical exam. A microscopic exam of the scales of skin can confirm the diagnosis.

How Is Jock Itch treated?

In most cases, treatment of jock itch involves keeping the affected area clean and dry and applying topical antifungal medications. Jock itch usually responds to over-the-counter antifungal creams and sprays. However, prescription antifungal creams are sometimes necessary. During treatment of jock itch, be sure to:
• Wash and dry the affected area with a clean towel
• Apply the antifungal cream, powder, or spray as directed
• Change clothes – especially underwear – everyday

Ringworm

Ringworm, also called tinea corporis, is not a worm, but a fungal infection of the skin. It can appear anywhere on the body and it looks like a circular, red, flat sore. It is often accompanied by scaly skin. The outer part of the sore can be raised, while the skin in the middle appears normal. Ringworm can be unsightly, but it is usually not a serious condition.

Is Ringworm contagious?

Ringworm can spread by direct contact with infected people or animals. It also may be spread on clothing or furniture. Heat and humidity may help to spread the infection.

What are the symptoms of Ringworm?

Ringworm appears as a red, circular, flat sore that is sometimes accompanied by scaly skin. There may be more than one patch of ringworm on the skin, and patches or red rings of rash may overlap. It is possible to have ringworm without having the common red ring of rash.

How is Ringworm diagnosed?

A doctor can diagnose ringworm based on the appearance of the rash or reported symptoms. He or she will ask about possible exposure to people or animals with ringworm. The doctor may take skin scrapings or samples from the infected area and look at them under a microscope to confirm the diagnosis.

Boils

A boil is a skin infection that starts in a hair follicle or oil gland. At first, the skin turns red in the area of the infection, and a tender lump develops. After four to seven days, the lump starts turning white, as pus collects under the skin.

The most common places for boils to appear are on the face, neck, armpits, shoulders and buttocks. When one forms on the eyelid, it is called a sty.

If several boils appear in a group, this is a more serious type of infection called a carbuncle.

Causes of Boils

Most boils are caused by a germ (staphylococcal bacteria). This germ enters the body through tiny nicks or cuts in the skin or can travel down the hair to the follicle.
These health problems make people more susceptible to skin infections:

- Diabetes
- Problems with the immune system
- Poor nutrition
- Poor hygiene
- Exposure to harsh chemicals that irritate the skin

**Symptoms of Boils**

A boil starts as a hard, red, painful lump usually about half an inch in size. Over the next few days, the lump becomes softer, larger, and more painful. Soon a pocket of pus forms on the top of the boil. These are the signs of a severe infection:

- The skin around the boil becomes infected. It turns red, painful, warm, and swollen.
- More boils may appear around the original one.
- A fever may develop.
- Lymph nodes may become swollen.

**When to Seek Medical Care:**

- You start running a fever.
- You have swollen lymph nodes.
- The skin around the boil turns red or red streaks appear.
- The pain becomes severe.
- The boil does not drain.
- A second boil appears.

You have a heart murmur, diabetes, any problem with your immune system, or use immune suppressing drugs (for example, corticosteroids or chemotherapy) and you develop a boil.

Boils usually do not need immediate emergency attention. If you are in poor health and you develop high fever and chills along with the infection, a trip to a hospital's emergency room is needed.

**Exams and Tests**

Your doctor can make the diagnosis with a physical exam. Many parts of the body may be affected by this skin infection, so some of the questions or exam may be about other parts of your body.

**Boils Treatment – Home Remedies**

- Apply warm compresses and soak the boil in warm water. This will decrease the pain and help draw the pus to the surface. Once the boil comes to a head, it will burst
with repeated soakings. This usually occurs within 10 days of its appearance. You can make a warm compress by soaking a wash cloth in warm water and squeezing out the excess moisture.

- When the boil starts draining, wash it with an antibacterial soap until all the pus is gone. Apply a medicated ointment and a bandage. Continue to wash the infected area two to three times a day and to use warm compresses, until the wound heals.
- Do not pop the boil with a needle. This could make the infection worse.

Leprosy

Leprosy is an infectious disease that causes severe, disfiguring skin sores and nerve damage in the arms and legs. The disease has been around since the beginning of time, often surrounded by terrifying, negative stigma and tales of leprosy patients being shunned, as outcasts. At one time or another, outbreaks of leprosy have affected and panicked people on every continent. The oldest civilizations of China, Egypt and India feared leprosy was an incurable, mutilating, and contagious disease.

However, leprosy is actually not highly contagious. You can catch it only if you come into close and repeated contact with nose and mouth droplets from someone with untreated, severe leprosy. Children are more likely to get leprosy than adults.

Today, more than 200,000 people worldwide are infected with leprosy, according to the World Health Organization, most of them in Africa and Asia. About 100 people are diagnosed with leprosy in the U.S. every year, mostly in the South, California, Hawaii, and some U.S. territories.

What causes Leprosy?

Leprosy is caused by a slow-growing type of bacteria called Mycobacteriumleprae (M. leprae). Leprosy is also known as Hansen's disease, after the scientist who discovered M. leprae in 1873.

What are the symptoms of Leprosy?

Leprosy primarily affects the skin and the nerves outside the brain and spinal cord, called the peripheral nerves. It may also strike the eyes and the thin tissue lining the inside of the nose.

The main symptom of leprosy is disfiguring skin sores, lumps, or bumps that do not go away after several weeks or months. The skin sores are pale-coloured.

Nerve damage can lead to:

- Loss of feeling in the arms and legs
- Muscle weakness
It takes a very long time for symptoms to appear, after coming into contact with the leprosy-causing bacteria. Some people do not develop symptoms until 20 or more years later. The time between contact with the bacteria and the appearance of symptoms is called the incubation period. Leprosy's long incubation period makes it very difficult for doctors to determine when and where a person with leprosy originally got sick.

**Forms of Leprosy**

Leprosy is characterised according to the number and type of skin sores you have. Specific symptoms and your treatment depend on the type of leprosy you have. The types are:

**Tuberculoid:** A mild, less severe form of leprosy. People with this type have only one or a few patches of flat, pale-colored skin (paucibacillary leprosy). The affected area of skin may feel numb because of nerve damage underneath. Tuberculoid leprosy is less contagious than other forms.

**Lepromatous:** A more severe form of the disease. It involves widespread skin bumps and rashes (multibacillary leprosy), numbness, and muscle weakness. The nose, kidneys, and male reproductive organs may also be affected. It is more contagious than tuberculoid leprosy.

**Borderline:** People with this type of leprosy have symptoms of both the tuberculoid and lepromatous forms.

**How is Leprosy diagnosed?**

If you have a suspicious skin sore, your doctor will remove a small sample of the abnormal skin and send it to a lab to be examined. This is called a skin biopsy. A skin smear test may also be done. With paucibacillary leprosy, no bacteria will be detected. In contrast, bacteria are expected to be found on a skin smear test from a person with multibacillary leprosy.

**How is Leprosy treated?**

Leprosy can be cured. In the last two decades, more than 14 million people with leprosy have been cured. The World Health Organization provides free treatment for all people with leprosy.

Treatment depends on the type of leprosy that you have. Antibiotics are used to treat the infection. Long-term treatment with two or more antibiotics is recommended, usually from six months to a year. People with severe leprosy may need to take antibiotics longer. However, antibiotics cannot reverse nerve damage.

Anti-inflammatory drugs are used to control swelling related to leprosy. This may include steroids, such as prednisone.
Patients with leprosy may also be given thalidomide, a potent medication that suppresses the body's immune system. It helps treat leprosy skin nodules. Thalidomide is known to cause severe, life-threatening birth defects and should never be taken by pregnant women.

**Leprosy Complications**

Without treatment, leprosy can permanently damage your skin, nerves, arms, legs, feet, and eyes.

Complications of leprosy can include:

- Blindness or glaucoma.
- Disfiguration of the face (including permanent swelling, bumps, and lumps).
- Erectile dysfunction and infertility in men.
- Kidney failure.
- Muscle weakness that leads to claw-like hands or an inability to flex the feet.
- Permanent damage to the inside of the nose, which can lead to nosebleeds and a chronic, stuffy nose.
- Permanent damage to the peripheral nerves, the nerves outside the brain and spinal cord, including those in your arms, legs, and feet.

Nerve damage can lead to a dangerous loss of feeling. A person with leprosy-related nerve damage may not feel pain when the hands, legs, or feet are cut, burned, or otherwise injured.

Approximately 1 to 2 million people worldwide are permanently disabled because of leprosy.

**Carbuncles**

A carbuncle is a red, swollen, and painful cluster of boils that are connected to each other under the skin. A boil (or furuncle) is an infection of a hair follicle that has a small collection of pus (called an abscess) under the skin. Usually single, a carbuncle is most likely to occur on a hairy area of the body, such as the back or nape of the neck. But a carbuncle also can develop in other areas of the body, such as the buttocks, thighs, groin, and armpits.

**Cause**

Most carbuncles are caused by Staphylococcus aureus bacteria, which inhabit the skin surface, throat, and nasal passages. These bacteria can cause infection by entering the skin through a hair follicle, small scrape, or puncture, although sometimes there is no obvious point of entry.
Filled with pus – a mixture of old and white blood cells, bacteria, and dead skin cells – carbuncles must drain before they are able to heal. Carbuncles are more likely than boils to leave scars.

An active boil or carbuncle is contagious: the infection can spread to other parts of the person’s body or to other people through skin-to-skin contact or the sharing of personal items. So it is important to practise appropriate self-care measures, like keeping the area clean and covered, until the carbuncle drains and heals.

Carbuncles require medical treatment to prevent or manage complications, promote healing, and minimise scarring. Contact your doctor, if you have a boil or boils that have persisted for more than a few days.

**Risk Factors for Carbuncles**

Older age, obesity, poor hygiene, and poor overall health are associated with carbuncles. Other risk factors for carbuncles include:

- Chronic skin conditions, which damage the skin’s protective barrier
- Diabetes
- Kidney disease
- Liver disease
- Any condition or treatment that weakens the immune system

Carbuncles also can occur in otherwise healthy, fit, younger people, especially those who live together in group settings, such as college dorms and share items such as bed linens, towels, or clothing. In addition, people of any age can develop carbuncles from irritations or abrasions to the skin surface caused by tight clothing, shaving, or insect bites, especially in body areas with heavy perspiration.

**Symptoms of Carbuncles**

The boils that collect to form carbuncles usually start as red, painful bumps. The carbuncle fills with pus and develops white or yellow tips that weep, ooze or crust. Over a period of several days, many untreated carbuncles rupture, discharging a creamy white or pink fluid.

*Superficial carbuncles* – which have multiple openings on the skin’s surface – are less likely to leave a deep scar. Deep carbuncles are more likely to cause significant scarring.

Other carbuncle symptoms include fever, fatigue and a feeling of general sickness. Swelling may occur in nearby tissue and lymph nodes, especially lymph nodes in the neck, armpit, or groin.

**Complications of Carbuncles**
Sometimes, carbuncles are caused by methicillin-resistant Staphylococcus aureus (MRSA) bacteria, and require treatment with potent prescription antibiotics if the lesions are not drained properly.

In rare cases, bacteria from a carbuncle can escape into the bloodstream and cause serious complications, including sepsis and infections in other parts of the body, such as the lung, bones, joints, heart, blood, and central nervous system.

Sepsis is an overwhelming infection of the body that is a medical emergency and can be fatal, if left untreated. Symptoms include chills, a spiking fever, rapid heart rate, and a feeling of being extremely ill.

**Home Treatment for Carbuncles**

The cardinal rule is to avoid squeezing or irritating a carbuncle, which increases the risk of complications and severe scarring.

Warm compresses may promote the drainage and healing of carbuncles. Gently soak the carbuncle in warm water, or apply a clean, warm, moist washcloth for 20 minutes several times per day. Similar strategies include covering the carbuncle with a clean, dry cloth and gently applying a heating pad or hot water bottle for 20 minutes several times per day. After each use, washcloths or cloths should be washed in hot water and dried at a high temperature.

Washing the carbuncle and covering the area with a sterile bandage also may promote drainage and healing and help prevent the infection from spreading. Over-the-counter medications, such as acetaminophen or ibuprofen, can help relieve the pain of an inflamed carbuncle.

It is important to thoroughly wash your hands after touching a carbuncle. Launder any clothing, bedding, and towels that have touched a carbuncle and avoid sharing bedding, clothing, or other personal items.

**Medical Treatments for Carbuncles**

See your doctor if a boil or boils do not drain and heal after a few days of home treatment, or if you suspect you have a carbuncle. Also, seek medical evaluation for a carbuncle that develops on your face, near your eyes or nose, or on your spine. Also see a doctor for a carbuncle that becomes very large or painful.

Your doctor may cut and drain the carbuncle, and ensure that all the pus has been removed by washing the area with a sterile solution. Some of the pus can be collected and sent to a lab to identify the bacteria causing the infection and check for susceptibility to antibiotics.

If the carbuncle is completely drained, antibiotics are usually unnecessary. But treatment with antibiotics may be necessary, in cases such as:
- When MRSA is involved and drainage is incomplete
- There is surrounding soft-tissue infection (cellulitis)
- A person has a weakened immune system
- An infection has spread to other parts of the body

Depending on severity, most carbuncles heal within two to three weeks after medical treatment.

**Impetigo**

Impetigo is a highly contagious bacterial skin infection. It can appear anywhere on the body but usually attacks exposed areas. Children tend to get it on the face, especially around the nose and mouth, and sometimes on the arms or legs. The infected areas appear in plaques, ranging from dime to quarter size, starting as tiny blisters that break and expose moist, red skin. After a few days, the infected area is covered with a grainy, golden crust that gradually spreads at the edges.

In extreme cases, the infection invades a deeper layer of skin and develops into ecthyma, a deeper form of the disease. Ecthyma forms small, pus-filled bumps with a crust much darker and thicker than that of ordinary impetigo. Ecthyma can be very itchy, and scratching the irritated area spreads the infection quickly. Left untreated, the sores may cause permanent scars and pigment changes.

The gravest potential complication of impetigo is post-streptococcal glomerulonephritis, a severe kidney disease that occurs following a strep infection in less than 1% of cases, mainly in children. The most common cause of impetigo is *Staphylococcus aureus*. However, another bacteria source is group A *streptococcus*. These bacteria lurk everywhere. It is easier for a child with an open wound or fresh scratch to contract impetigo. Other skin-related problems, such as eczema, body lice, insect bites, fungal infections, and various other forms of dermatitis can make a person susceptible to impetigo.

Most people get this highly infectious disease through physical contact with someone who has it, or from sharing the same clothes, bedding, towels, or other objects. The very nature of childhood, which includes lots of physical contact and large-group activities, makes children the primary victims and carriers of impetigo.

**Pilonidal Cyst**

A pilonidal cyst occurs at the bottom of the tailbone (coccyx) and can become infected and filled with pus. Once infected, the technical term is pilonidal abscess. Pilonidal abscesses look like a large pimple at the bottom of the tailbone, just above the crack of the buttocks. It is more common in men than in women. It usually happens in young people up into the fourth decade of life.

**Causes**
Most doctors think that ingrown hairs cause pilonidal cysts. Pilonidal means "nest of hair." It is common to find hair follicles inside the cyst. Another theory is that pilonidal cysts appear after trauma to that region of the body. During World War II, more than 80,000 soldiers developed pilonidal cysts that required a hospital stay. People thought the cysts were due to irritation from riding in bumpy Jeeps. For a while, the condition was actually called "Jeep disease."

**Symptoms**

The symptoms of a pilonidal cyst include:

- Pain at the bottom of the spine
- Swelling at the bottom of the spine
- Redness at the bottom of the spine
- Draining pus
- Fever

**When to Seek Medical Care for a Pilonidal Cyst**

A pilonidal cyst is an abscess or boil that needs to be drained or lanced, to improve. Like other boils, it does not improve with antibiotics. If any of the above symptoms occur, consult a doctor.

**Exams and Tests**

A doctor can diagnose a pilonidal cyst by taking a history (asking about the patient's history and symptoms regarding the cyst) and performing a physical exam. The doctor may find the following conditions:

- Tenderness, redness, and swelling between the cheeks of the buttocks just above the anus
- Fever
- Increased white blood cells on a blood sample (not always taken)
- Inflammation of the surrounding skin

**Home Remedies**

Early in an infection of a pilonidal cyst, the redness, swelling, and pain may be minimal. Sitting in a warm tub may decrease the pain and may decrease the chance that the cyst will develop to the point of requiring incision and drainage.

**Medical Treatment for a Pilonidal Cyst**

Antibiotics do not heal a pilonidal cyst. Doctors have any of a number of procedures available, including the following treatments.
The preferred technique for a first pilonidal cyst is incision and drainage of the cyst, removing the hair follicles and packing the cavity with gauze.

**Advantage**– Simple procedure done under local anesthesia.

**Disadvantage** – Frequent changing of gauze packing until the cyst heals, sometimes up to three weeks.

Marsupialization – This procedure involves incision and draining, removal of pus and hair, and sewing of the edges of the fibrous tract to the wound edges to make a pouch.

**Advantages** – Outpatient surgery under local anesthesia, minimises the size and depth of the wound without the need to pack gauze in the wound.

**Disadvantages** – Requires about six weeks to heal, needs a doctor trained in the technique.

Another option is incision and drainage with immediate closing of the wound.

**Advantages** – Wound completely closed immediately following surgery without need for gauze.

**Disadvantages** – High rate of recurrence (it is hard to remove the entire cyst, which might come back). Typically performed in an operating room, it requires a specially trained surgeon.

**Skin and Molluscum Contagiosum**

Molluscum contagiosum is a viral skin infection that causes either single or multiple raised, pearl-like bumps (papules) on the skin. It is a chronic infection and lesions may persist from a few months to a few years. However, most cases resolve in six to nine months.

**Causes**

Molluscum contagiosum is caused by a virus (the molluscum contagiosum virus) that is part of the pox virus family. The virus is contagious through direct contact and is more common in children. However, the virus also can be spread by sexual contact and can occur in people with compromised immune systems. Molluscum contagiosum can spread on a single individual through scratching and rubbing.

**Symptoms**

Common locations for the molluscum contagiosum papules are on the face, trunk, and limbs of children and on the genitals, abdomens, and inner thighs of adults. The condition usually results in papules that:

- Are generally painless, but can itch
- Are small (2 to 5 millimeter diameter)
• Have a dimple in the center
• Are initially firm, dome-shaped, and flesh-colored
• Become softer with time
• May turn red and drain over time
• Have a central core of white, waxy material

Molluscum contagiosum usually disappears spontaneously over a period of months to years in people who have normal immune systems. In people who have AIDS or other conditions that affect the immune system, the lesions associated with molluscum contagiosum can be extensive and especially chronic.

**Diagnosis**

Diagnosis of molluscum contagiosum is based on the distinctive appearance of the lesion. If the diagnosis is in question, a doctor can confirm the diagnosis with a skin biopsy -- the removal of a portion of skin for closer examination. If there is any concern about related health problems, a doctor can check for underlying disorders.

**Treatment**

Molluscum contagiosum is usually self-limited, so treatment is not always necessary. However, individual lesions may be removed by scraping or freezing. Topical medications, such as those used to remove warts, may also be helpful in lesion removal.

Note: The surgical removal of individual lesions may result in scarring.

**Prevention**

To prevent molluscum contagiosum, follow these tips:

• Avoid direct contact with anyone who may have the condition.
• Treat underlying eczema in children.
• Remain sexually abstinent or have a monogamous sexual relationship with an uninfected individual. (Male and female condoms cannot offer full protection as the virus can be found on areas not covered by the condom.)

**Shingles**

Shingles (herpes zoster) results from a reactivation of the virus that also causes chickenpox. With shingles, the first thing you may notice is a tingling sensation or pain on one side of your body or face. Painful skin blisters then erupt on only one side of your face or body along the distribution of nerves on the skin. Typically, this occurs along your chest, abdomen, back, or face, but it may also affect your neck, limbs, or lower back. The area can
be very painful, itchy, and tender. After one to two weeks, the blisters heal and form scabs, although the pain often continues.

The deep pain that follows after the infection has run its course is known as postherpetic neuralgia. It can continue for months or even years, especially in older people. The incidence of shingles and of postherpetic neuralgia rises with increasing age. More than 50% of cases occur in people over 60. Shingles usually occurs only once, although it has been known to recur in some people.

**What causes Shingles?**

Shingles arises from varicella-zoster, the same virus that causes chickenpox. Following a bout of chickenpox, the virus lies dormant in the spinal nerve cells. But it can be reactivated years later when the immune system is suppressed by:

- Physical or emotional trauma
- A serious illness
- Certain medications

Medical science doesn't understand why the virus becomes reactivated in some people and not in others.

**Chicken Pox**

Chickenpox (varicella), a viral illness characterised by a very itchy red rash, is one of the most common infectious diseases of childhood. It is usually mild in children, but adults run the risk of serious complications, such as bacterial pneumonia.

People who have had chickenpox almost always develop lifetime immunity (meaning you can’t get it again). However, the virus remains dormant in the body, and it can reactivate later in life and cause shingles.

**Understanding Chicken Pox**

Because the chickenpox virus can pass from a pregnant woman to her unborn child, possibly causing birth defects, doctors often advise women considering pregnancy to confirm their immunity with a blood test.

**What Causes Chickenpox?**

Chickenpox is caused by the herpes zoster virus, also known as the varicella zoster virus. It is spread by droplets from a sneeze or cough, or by contact with the clothing, bed linens, or oozing blisters of an infected person. The onset of symptoms is seven to 21 days after exposure. The disease is most contagious a day before the rash appears and up to seven days after, or until the rash is completely dry and scabbed.