CONDITION

Yaws

Yaws is a curable bacterial infection that affects the skin, bones, and joints.

WHAT IT IS
Long-lasting bacterial infection affecting skin, bones, and joints

BODY SYSTEM
Skin and bones

MAIN SYMPTOMS
Raised skin sores, ulcers, bone pain, swollen joints

WHAT CAUSES IT
Infection with Treponema pallidum pertenue bacteria

HOW IT IS DIAGNOSED
Blood antibody tests; lesion PCR distinguishes yaws

MAIN TREATMENT
Antibiotics with clinical and blood-test follow-up

CAN IT BE CURED?
Yes, antibiotics clear the infection

IS IT AN EMERGENCY?
No, but new sores need prompt assessment

LONG-TERM OUTLOOK
Usually excellent after treatment; established damage may remain

Overview

Yaws is a long-lasting bacterial infection found mainly in warm, humid tropical areas. It affects the skin first and can later damage bones, joints, and cartilage if it is not treated.

The condition is caused by Treponema pallidum pertenue . This bacterium is closely related to the bacterium that causes syphilis, but yaws is not usually sexually transmitted. It spreads mainly through direct skin-to-skin contact with an infectious sore.

Most people who develop yaws are children living in rural communities where the infection is present. Crowded housing, limited access to clean water, and difficulty reaching health services can allow it to spread. Yaws does not occur only because someone has poor personal hygiene.

Antibiotics like amoxicillin or doxycycline can cure the infection. Early treatment also reduces

the chance of lasting tissue damage and helps prevent transmission to other people. However, an antibiotic cannot always reverse bone or facial damage that developed before treatment.

Symptoms

The first sign is usually a raised skin sore where the bacterium entered the body. It may look like a small bump at first and then grow into a moist, crusted, or raspberry-like lesion. It is often painless, although it may itch or become uncomfortable. It commonly appears on a leg, ankle, foot, arm, hand, or the face.

Nearby lymph nodes may become swollen. Lymph nodes are small parts of the immune system found in areas such as the neck, armpits, and groin.

Without treatment, the first sore may heal, but the infection can remain in the body. Weeks or months later, further symptoms may include:

Symptoms can disappear for long periods. This is called a latent stage. During this time, there may be no visible sores, even though blood tests continue to show evidence of infection.

A small proportion of untreated people develop late yaws after several years. Late symptoms may include deep skin ulcers and damage to bones, joints, or the cartilage of the nose. Severe destructive complications are now less common where diagnosis and antibiotics are available.

Other infections and skin conditions can look similar to yaws. A skin sore alone cannot confirm the diagnosis.

- Several raised, crusted, or ulcerated skin lesions
- Thickened or cracked skin on the palms and soles
- Painful walking when the soles are affected
- Bone pain, especially in the arms or legs
- Swelling around bones or joints
- Tiredness or a general feeling of being unwell

Causes and risk factors

Yaws is caused by infection with Treponema pallidum pertenue . The bacterium usually enters through a small break, scratch, or abrasion in the skin.

Transmission happens mainly through direct contact with fluid from an infectious skin lesion. Close contact during children's play is an important route of spread. The infection is most

contagious during its early stages, when moist skin lesions are present.

Yaws is not generally classified as a sexually transmitted infection. However, because closely related treponemal bacteria cause syphilis, healthcare professionals may need to consider both infections when assessing an older adolescent or adult.

Factors linked with a higher chance of exposure include:

You cannot develop yaws from inherited genes. It is not caused by diet, curses, or ordinary contact with someone who has completed effective treatment.

- Living in or visiting a community where yaws transmission continues
- Frequent close skin contact with someone who has active sores
- Limited access to diagnosis and antibiotic treatment
- Crowded living conditions that make close contact more likely

Diagnosis

Diagnosis begins with an examination of the skin and a discussion about symptoms, travel, and where you live or have lived. The appearance of a sore and local evidence of yaws can suggest the condition, but testing is needed because several infections can cause similar lesions.

Blood tests look for antibodies made by the immune system in response to treponemal bacteria. Testing usually combines:

A positive blood test does not identify yaws by itself. Standard antibody tests cannot reliably tell yaws apart from syphilis or some other related treponemal infections. Treponemal tests may also remain positive for many years, sometimes for life, after successful treatment.

Polymerase chain reaction, or PCR, can test a sample taken from an active sore. It detects bacterial genetic material and can distinguish yaws from some other causes. PCR may also be used to look for genetic changes associated with resistance to macrolide antibiotics such as azithromycin.

PCR is not available in every community. Where it is unavailable, diagnosis may be based on symptoms, blood tests, age, location, and the likelihood of exposure.

- A treponemal test, which detects antibodies to the bacterial family
- A non-treponemal test, which helps assess current activity and response to treatment

Treatment and management

Yaws is treated with antibiotics. Oral azithromycin is widely used in yaws control programmes. An injection of benzathine penicillin is an effective alternative in certain circumstances. The choice may be influenced by medicine availability, allergy history, pregnancy, previous treatment, and evidence of antibiotic resistance.

Treatment should come through a qualified health service or organised yaws programme. The correct medicine and follow-up cannot be selected from the appearance of a sore alone.

Skin lesions often begin healing after effective treatment. Bone discomfort and swelling may take longer to settle. Treatment clears the bacteria, but it may not fully repair tissue, bone, or joint damage that is already established.

Follow-up may involve examining the skin and repeating a non-treponemal blood test. A falling antibody level supports a response to treatment. A sore that does not heal, comes back, or remains PCR-positive may lead to further testing for an incorrect diagnosis, reinfection, or antibiotic resistance.

Because yaws spreads through close contact, health teams may examine and offer treatment to household members, close contacts, or an entire affected community. This is part of controlling transmission and does not mean that every contact has symptoms.

Do not use leftover antibiotics or share them with others. Incomplete or unsuitable treatment may delay the correct diagnosis and contributes to antibiotic resistance.

Complications

Untreated yaws can return after symptom-free periods. Repeated or persistent infection may damage deeper tissues.

Possible complications include:

Open sores can also develop a second infection caused by other bacteria. Increasing pain, warmth, swelling, pus, or fever may suggest this.

Unlike sexually transmitted syphilis, yaws is not generally associated with the same pattern of heart, brain, or pregnancy complications. If tests cannot clearly distinguish between the infections, further assessment is important so that the right follow-up can be arranged.

- Long-lasting skin ulcers and scars
- Inflammation and altered growth of bones
- Joint stiffness, pain, or reduced movement
- Deformity of fingers, limbs, or facial structures

- Destruction of cartilage around the nose or upper mouth
- Difficulty walking or completing daily activities

Prevention

Yaws can be prevented, but there is no vaccine.

Finding and treating infection quickly is central to prevention. Once effective antibiotics clear active lesions, the person is no longer expected to remain a source of yaws transmission. Public health programmes may treat whole communities in areas where cases continue, then monitor for new sores.

Practical ways to reduce spread include:

Improved access to clean water, suitable housing, health education, and local medical care can support control efforts. Personal cleanliness alone cannot eliminate yaws from a community.

A person can catch yaws again after successful treatment. Previous infection does not provide reliable lifelong protection.

- Avoiding direct contact with an untreated person's open or moist sores
- Covering a suspected sore with a clean dressing when possible
- Washing hands after helping to clean or dress a lesion
- Seeking assessment for household members and close contacts
- Taking part in community testing and treatment programmes

Living with it and what to expect

Most early skin lesions heal after effective antibiotic treatment, and most people return to their usual activities. Follow-up remains important even when the skin looks better because blood testing may be needed to confirm that treatment has worked as expected.

If yaws has affected bones or joints, pain and movement may improve more slowly than the skin. Established deformity may remain after the bacteria have been cleared. Some people then need wound care, pain management, rehabilitation, mobility support, or assessment by bone, joint, or reconstructive specialists.

A new sore after treatment does not automatically mean that the medicine failed. It could be reinfection, another skin condition, or a second bacterial infection. It should be examined rather than treated with leftover medicine.

Children may need practical support while sores heal, particularly if walking is painful. Keeping lesions clean and covered can reduce discomfort, protect the skin, and limit direct contact. School attendance can usually resume according to local medical and public health advice.

Yaws can carry stigma because it causes visible sores and is related to the bacterium that causes syphilis. It is important to remember that yaws usually spreads through ordinary close skin contact in affected communities, especially among children. It is a treatable infection, not evidence of sexual activity or personal wrongdoing.

When to get medical help

Arrange prompt medical assessment if you or a child has a raised, crusted, or ulcerated sore after living in or visiting an area where yaws occurs. Assessment is also appropriate for unexplained bone pain, swollen joints, or thickened and cracked skin on the palms or soles.

Routine follow-up is needed after treatment if:

Seek urgent medical care for a sore with rapidly increasing redness, swelling, severe pain, pus, or fever. These signs may indicate an additional bacterial infection.

Emergency help is appropriate for trouble breathing, facial or throat swelling, fainting, or widespread hives after an antibiotic. These can be signs of a severe allergic reaction. Sudden vision loss, new weakness, confusion, or inability to wake normally also requires emergency care, whether or not yaws is suspected.

- A scheduled skin examination or blood test is due
- A lesion is healing slowly
- Bone or joint symptoms continue
- A new sore develops
- A close contact is diagnosed with yaws

Common questions

Is yaws the same as syphilis?

No. They are caused by closely related bacteria, and routine blood tests can react to both. Yaws usually spreads through nonsexual skin contact and mainly affects the skin and bones. Syphilis has different transmission patterns and complications. PCR testing of a sore can help identify yaws.

Can yaws be completely cured?

Yes. Effective antibiotics can clear the infection. Treatment may not reverse permanent scars, bone changes, or deformity that developed beforehand.

Is yaws contagious?

Yaws can spread while active, infectious skin lesions are present. It usually passes through direct skin contact with a sore. People without visible symptoms are considered much less likely to transmit it.

Can adults get yaws?

Yes, although most cases occur in children in affected tropical communities. In adults and older adolescents, assessment may need to distinguish yaws from syphilis because standard blood tests cannot do this on their own.

Can yaws come back after treatment?

Symptoms may return if treatment did not clear the infection, if antibiotic resistance is present, or if the person is infected again. A new lesion may also have another cause. Follow-up testing helps clarify what has happened.

Can I catch yaws from clothes, toilets, or shared food?

Yaws is mainly spread by direct skin contact with an infectious lesion. Transmission through toilets, food, or casual contact is not considered the usual route. Avoid sharing anything contaminated with fluid from an open sore until it has been cleaned.

Sources

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