CONDITION

Sydenham chorea

Sydenham chorea is an immune-related movement condition that can develop after a group A strep infection.

WHAT IT IS
Autoimmune movement condition following group A strep infection

BODY SYSTEM
Nervous system, sometimes heart and circulation

MAIN SYMPTOMS
Jerky movements, clumsiness, weakness, emotional changes

WHAT CAUSES IT
Immune reaction after group A strep infection

HOW IT IS DIAGNOSED
Clinical assessment; no single confirmatory test

MAIN TREATMENT
Antibiotics, symptom-control medicines, and supportive care

CAN IT BE CURED?
Sometimes - symptoms resolve but may recur

IS IT AN EMERGENCY?
Sometimes - swallowing, breathing, or walking becomes unsafe

LONG-TERM OUTLOOK
Most recover; recurrences and rheumatic heart disease remain possible

Overview

Sydenham chorea is a movement condition caused by an immune reaction after infection with group A Streptococcus , often called group A strep. This bacterium commonly causes strep throat and some skin infections.

The condition is one possible feature of acute rheumatic fever. Rheumatic fever can affect the brain, heart, joints, and skin. In Sydenham chorea, the immune system mistakenly interferes with areas of the brain that control movement and behaviour. The bacterium is not directly infecting the brain.

"Chorea" means brief, irregular movements that seem to flow unpredictably from one body part to another. The name comes from the Greek word for dance. Older names include rheumatic chorea and infectious chorea.

Sydenham chorea mainly affects children and teenagers, although adults can occasionally develop it. Symptoms may not begin until weeks or months after the original infection. By then, the sore throat or skin infection may have been forgotten, and tests for an active infection may be negative.

The condition matters because uncontrolled movements can interfere with eating, walking, writing, and daily activities. It can also signal rheumatic fever, which may affect the heart valves even when there are no obvious heart symptoms.

Symptoms

The main symptom is chorea: rapid, irregular movements that are not intentional. The movements are not usually rhythmic. They may look like fidgeting, facial grimacing, stumbling, or repeatedly dropping objects.

Symptoms can affect both sides of the body or mainly one side. They often become more noticeable with stress, tiredness, or activity and usually disappear during sleep.

Possible symptoms include:

Mild chorea may first be mistaken for restlessness, poor coordination, or a behavioural problem. A child may appear to be making faces or moving on purpose even though the movements are not under full voluntary control.

Severe chorea can make sitting, standing, eating, or speaking difficult. This is less common but requires prompt medical assessment.

- Jerky or flowing movements of the face, arms, legs, or trunk
- Clumsiness, poor handwriting, or difficulty using utensils
- Reduced muscle tone, which can feel like weakness or "floppiness"
- Unsteady walking and trouble with balance
- Slurred, uneven, or interrupted speech
- Difficulty chewing or swallowing
- Sudden emotional changes, irritability, anxiety, or tearfulness
- Problems with attention, sleep, or school performance
- Repetitive thoughts or behaviours similar to obsessive-compulsive symptoms

Causes and risk factors

Sydenham chorea follows a group A strep infection. The immune system makes antibodies to fight the bacterium. In some people, this response also reacts with parts of the brain involved in movement and emotion. This is called an autoimmune reaction.

Symptoms often appear later than other features of rheumatic fever. Because of this delay, a throat swab may no longer detect the bacterium when chorea begins.

The condition is most often seen during childhood and adolescence. It is more common in girls after puberty, but it can affect any sex. A previous episode increases the chance of another episode, particularly after another group A strep infection.

Sydenham chorea is not inherited in a simple way. Genetic differences may influence who is vulnerable to rheumatic fever, but a parent does not directly pass Sydenham chorea to a child.

Recurrences have sometimes been associated with pregnancy or hormonal changes. New movements during pregnancy still need careful assessment because several other conditions can cause chorea.

Diagnosis

There is no single blood test or brain scan that confirms Sydenham chorea. Diagnosis is based on the pattern of symptoms, a neurological examination, evidence of current or previous group A strep infection, and the exclusion of other causes.

A clinician may watch how you or your child walks, speaks, holds out the hands, and performs simple movements. They may also ask about recent sore throats, skin infections, joint pain, fever, rashes, emotional changes, and medicines.

Tests may include:

Antibody results can support a recent infection, but they do not prove that strep caused the movements. Results may also be normal if enough time has passed.

A brain MRI is often normal in Sydenham chorea. Imaging may be used when the pattern is unusual or when another brain condition needs to be excluded. Additional tests may look for lupus, thyroid problems, Wilson disease, medication effects, inherited movement conditions, or autoimmune inflammation of the brain.

Sydenham chorea can sometimes be diagnosed as a manifestation of acute rheumatic fever even when other usual features are absent. Other causes of chorea must first be considered carefully.

- A throat swab or rapid test for an active group A strep infection
- Blood tests for antibodies produced after strep infection, such as antistreptolysin O or anti-DNase B
- An electrocardiogram to check the heart's electrical activity
- An echocardiogram, an ultrasound scan that checks heart valves and function
- Blood tests to look for inflammation or alternative causes

Treatment and management

Treatment has three main aims: clearing any remaining group A strep bacteria, preventing future rheumatic fever episodes, and reducing disruptive symptoms.

Antibiotics like amoxicillin or doxycycline are usually given to eradicate group A strep, even if the original infection has passed. Longer-term preventive antibiotics may then be recommended to reduce the risk of another rheumatic fever episode. The medicine and length of prevention are based on factors such as heart involvement and local guidance.

Mild chorea may need supportive care rather than movement-control medicine. Helpful adjustments can include extra time for schoolwork, protection from falls, help with eating, and periods of rest. Symptoms are genuine and should not be treated as intentional behaviour.

When movements interfere with safety or daily life, medicines that calm abnormal movement may be considered. Options include certain antiseizure medicines or medicines that alter dopamine, a chemical messenger involved in movement. These medicines can cause effects such as sleepiness, mood changes, stiffness, or weight gain, so monitoring is important.

Corticosteroids like prednisone or hydrocortisone , which reduce immune inflammation, may be considered for severe symptoms. Intravenous immunoglobulin or plasma exchange has been used in selected severe or treatment-resistant cases, but evidence is limited and these are not routine treatments.

If rheumatic fever has affected the heart, treatment and follow-up will also focus on heart inflammation or damaged valves. Mental health support may help when anxiety, obsessive-compulsive symptoms, or emotional changes are persistent or distressing.

Complications

Uncontrolled movements can cause falls, bruises, exhaustion, and difficulty eating or drinking. Severe swallowing problems can allow food or liquid to enter the airway.

The most important associated complication is rheumatic heart disease. This is lasting damage to one or more heart valves after rheumatic fever. Heart valve inflammation can be present without an obvious murmur or other symptoms, which is why heart assessment is recommended.

School attendance and relationships may be affected for several months. Emotional and obsessive-compulsive symptoms can sometimes continue after the movements improve.

Sydenham chorea may return after recovery. A recurrence does not always mean there has been a new strep infection, but it should be assessed.

Prevention

The first episode cannot always be prevented. Treating confirmed group A strep throat with appropriate antibiotics lowers the risk of acute rheumatic fever, but infections may be mild, unrecognised, or already resolved before chorea appears.

After Sydenham chorea or rheumatic fever, preventive antibiotics can greatly reduce the chance of another rheumatic fever episode. This is called secondary prophylaxis. How long it continues is based mainly on whether the heart was affected and whether valve damage remains.

Take preventive antibiotics on the schedule provided and discuss missed doses during routine follow-up. Seek assessment for possible strep infections rather than using leftover antibiotics.

Ordinary contact with someone who has Sydenham chorea does not spread the chorea itself. An active group A strep infection can spread between people.

Living with it and what to expect

Symptoms often increase over days or weeks before gradually improving. Recovery commonly takes several months, although the timing is different for each person. Some people have mild movements or emotional symptoms for longer.

Most children eventually return to their usual activities. During recovery, handwriting, sports, eating, and concentration may improve at different rates. Temporary school adjustments can help prevent a child from being penalised for movements or reduced coordination.

Stress and tiredness can briefly make movements more noticeable without necessarily meaning the condition is worsening. Regular sleep, a safe environment, and support with demanding tasks may make daily life easier.

Routine follow-up may include reviews of movement symptoms, emotional well-being, antibiotic prevention, and heart health. If an echocardiogram shows valve changes, heart follow-up may continue after the chorea has resolved.

Recurrences are possible, particularly after another strep infection. They are more likely in the first few years after the initial episode but can occur later. New symptoms should not automatically be assumed to be a recurrence because other movement conditions can look similar.

When to get medical help

Arrange a prompt medical assessment for new unexplained jerky movements, marked clumsiness, facial grimacing, or sudden changes in speech or walking. Assessment is also important if these symptoms occur after a sore throat, skin infection, joint pain, fever, or previous rheumatic fever.

Contact the healthcare team during routine follow-up if movements are becoming more disruptive, school or sleep is suffering, emotional symptoms are persistent, or preventive antibiotic doses have been missed.

Seek urgent medical help if the person:

Call emergency services if there is trouble breathing, choking, loss of consciousness, a seizure, or sudden weakness on one side. Sudden one-sided weakness or speech loss may be a stroke rather than Sydenham chorea and needs emergency assessment.

- Cannot eat or drink safely because of movements
- Has repeated falls or cannot walk safely
- Develops new shortness of breath, chest pain, fainting, or a racing heartbeat
- Has severe agitation, confusion, or a major change in awareness

Common questions

Will Sydenham chorea go away?

The movements resolve in many people, usually over months rather than days. Some symptoms may last longer, and episodes can recur. Emotional or obsessive-compulsive symptoms may follow a different course from the movements.

Is Sydenham chorea contagious?

No. The immune-related movement condition cannot spread from one person to another. The group A strep infection that triggers it can be contagious while active.

Does Sydenham chorea mean there is heart damage?

Not always. However, it is a sign of rheumatic fever, and heart valve inflammation can occur without clear symptoms. An echocardiogram helps check for this. Some people need continuing heart monitoring, while others have no lasting heart involvement.

Can Sydenham chorea come back?

Yes. Recurrences can happen after another strep infection or without a clearly identified trigger. Continuing prescribed preventive antibiotics reduces the risk of recurrent rheumatic fever.

Can a child with Sydenham chorea attend school?

Many children can attend with temporary support, depending on symptom severity. They may need extra time, reduced handwriting, help carrying items, rest breaks, or protection from activities that increase the risk of falling. Severe symptoms may require time away until eating and movement are safer.

Is Sydenham chorea the same as PANDAS?

No. Both have been linked with strep infections and can include behavioural symptoms. Sydenham chorea is a recognised manifestation of rheumatic fever with characteristic involuntary movements. PANDAS refers to a proposed pattern of sudden obsessive-compulsive symptoms or tics associated with strep infection, and its assessment follows a different process.

Sources

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