CONDITION

Takayasu arteritis

Takayasu arteritis is inflammation of the aorta and other large arteries that can narrow or weaken them

WHAT IT IS
Long-term inflammation of the aorta and large arteries

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Fatigue, limb pain, dizziness, unequal arm blood pressures

WHAT CAUSES IT
Immune system attack; trigger unknown

HOW IT IS DIAGNOSED
Artery imaging, clinical assessment, and blood tests

MAIN TREATMENT
Steroids and other immune-suppressing medicines

CAN IT BE CURED?
No - treatment can control inflammation

IS IT AN EMERGENCY?
Sometimes - stroke, heart attack, or aortic rupture signs

LONG-TERM OUTLOOK
Often controllable, but relapses and artery damage can occur

Overview

Takayasu arteritis is a rare, long-term condition that causes inflammation in large arteries. It is also known as Takayasu disease.

It mainly affects the aorta, the large artery carrying blood from the heart, and the major arteries branching from it. It can also affect arteries supplying the lungs or heart.

Takayasu arteritis is a type of vasculitis , meaning inflammation of blood vessels. Ongoing inflammation can thicken and scar an artery wall. This may narrow or block the artery and reduce blood flow. Less often, the artery wall becomes weakened and enlarged, forming an aneurysm .

The condition is sometimes called "pulseless disease" because narrowed arm arteries can

cause a weak or missing pulse. However, not everyone develops this sign.

Takayasu arteritis most often begins in younger people and is more common in women, but it can affect people of any sex or background. Early recognition matters because treatment can control inflammation and help limit further artery damage.

Symptoms

Symptoms differ according to which arteries are affected. Some people first have general symptoms caused by inflammation. Others are diagnosed after reduced blood flow causes symptoms or an imaging test finds artery damage.

General symptoms may include:

Symptoms caused by narrowed or blocked arteries may include:

A bruit may be heard during an examination. This is a whooshing sound caused by blood moving through a narrowed artery.

Symptoms do not always show how active the inflammation is. A person may have few symptoms while changes continue in an artery. Symptoms can also persist because of permanent narrowing even after active inflammation has settled.

- Unusual tiredness, fever, night sweats, or weight loss
- Aching muscles or joints
- Headaches or a general feeling of being unwell
- Reduced appetite
- Arm or leg aching, weakness, or tiredness during activity
- Dizziness, fainting, or changes in vision
- A weak pulse or different blood pressure readings between the arms
- Chest pain, breathlessness, or a fast heartbeat
- Abdominal pain, especially after eating
- High blood pressure, sometimes caused by narrowed kidney arteries

Causes and risk factors

The exact cause is unknown. Takayasu arteritis appears to be an autoimmune condition, meaning the immune system mistakenly attacks the body's own tissues. In this case, it targets

the walls of large arteries.

Genes may influence susceptibility, but Takayasu arteritis is not usually passed directly from parent to child. Most relatives of someone with the condition will not develop it.

No infection, food, activity, or personal choice has been shown to be the single cause. It is not contagious.

The condition is seen more often in women and commonly starts before middle age. It occurs worldwide, although reported rates differ among populations.

Diagnosis

There is no single blood test that confirms Takayasu arteritis. Diagnosis usually combines symptoms, a physical examination, blood tests, and detailed pictures of the arteries. Other conditions that can damage or narrow arteries must also be considered.

During an examination, a clinician may check:

Blood tests may measure C-reactive protein , or CRP, and erythrocyte sedimentation rate , or ESR. These tests can show inflammation but are not specific to Takayasu arteritis. Normal results do not always rule out active artery inflammation.

Imaging is central to diagnosis. Tests may include magnetic resonance angiography, CT angiography, or Doppler ultrasound. These can show thickened artery walls, narrowing, blockage, enlargement, or aneurysms.

A PET scan can sometimes help identify inflammation in artery walls. Catheter angiography, in which dye is injected into an artery, gives detailed images of the artery channel. It is generally reserved for situations where other imaging is insufficient or a procedure is being planned.

A biopsy is rarely used because the affected arteries are deep inside the body and are not easily sampled. Follow-up imaging is often needed to establish whether changes are new, stable, or getting worse.

- Blood pressure in both arms
- Pulses in the arms, legs, and neck
- Heart and artery sounds
- Signs of reduced blood flow or high blood pressure

Treatment and management

Treatment aims to stop active inflammation, protect blood flow, and manage existing artery damage. Care is usually coordinated by a specialist in inflammatory conditions, often with heart, vascular, kidney, or eye specialists when needed.

Corticosteroids like prednisone or hydrocortisone are commonly used to bring inflammation under control. These medicines are also called steroids, although they are different from bodybuilding steroids. Because long-term steroid treatment can cause side effects, another medicine that reduces immune activity is often added.

These additional treatments may include conventional immune-suppressing medicines or biologic medicines that target specific parts of the immune system. The choice is based on inflammation, artery involvement, previous treatment, other health conditions, pregnancy plans, and possible side effects.

Treatment usually includes monitoring for problems such as infections, bone thinning, changes in blood sugar, and high blood pressure. Medicines should not be stopped suddenly unless a treating professional gives instructions, particularly corticosteroids.

Regular assessment may involve symptom reviews, examinations, blood tests, and repeat artery imaging. Blood inflammation results can help, but treatment decisions are not based on these results alone.

Procedures may be needed when damaged arteries cause a serious lack of blood flow, severe high blood pressure, a large aneurysm, or major heart valve problems. Options include widening an artery with a balloon, placing a stent, or bypass surgery. When possible, planned vascular procedures are performed after inflammation has been controlled because active inflammation can increase the chance of the artery narrowing again.

Low-dose aspirin or other medicines that affect clotting are appropriate in some situations, but not for everyone. They can cause bleeding and should only be used when recommended for a clear reason.

Complications

Complications come from reduced blood flow, weakened artery walls, high blood pressure, or treatment side effects. The risk depends on which arteries are affected and how quickly inflammation is controlled.

Possible complications include:

Many of these complications can be treated or monitored. Keeping follow-up appointments is important even when symptoms are mild because some artery changes develop quietly.

- Stroke or a temporary interruption of blood flow to the brain
- Heart attack, heart failure, or abnormal heart rhythms
- Leakage of the aortic heart valve
- Kidney damage or difficult-to-control blood pressure
- Reduced blood supply to an arm, leg, bowel, or other organ
- An aortic aneurysm or, rarely, a tear or rupture of the aorta

Prevention

There is no known way to prevent Takayasu arteritis. It is not caused by something you did, and there is no proven diet, supplement, or lifestyle change that stops it from developing.

Once diagnosed, controlling inflammation and monitoring the arteries may reduce the chance of further damage. Not smoking, being physically active within safe limits, and managing blood pressure, cholesterol, and blood sugar support overall artery health. These measures do not replace treatment for the inflammation.

Living with it and what to expect

Takayasu arteritis usually requires long-term follow-up. The condition may become quiet for extended periods and then become active again. This is called a relapse. Some people need treatment for years, while others can gradually reduce medication under supervision.

Existing scars or narrowing may remain even when inflammation is controlled. For this reason, ongoing symptoms do not always mean the condition is active. Equally, feeling well does not guarantee that every artery is unchanged. Clinical reviews and imaging help distinguish active inflammation from lasting damage.

Many people continue with work, education, family life, and suitable exercise. Activity may need to be adjusted if reduced blood flow causes limb pain, dizziness, chest discomfort, or unusual breathlessness. A rehabilitation or exercise plan may be useful when heart or limb circulation is affected.

Treatment can also shape daily life. Steroids and immune-suppressing medicines may require infection precautions, vaccinations, bone-health monitoring, and regular blood tests. Report suspected medicine side effects rather than stopping treatment on your own.

Pregnancy is possible for many people with Takayasu arteritis, but it benefits from planning.

Blood pressure, artery involvement, heart function, and medicine safety need review before pregnancy. Care is usually shared between specialists in pregnancy and vascular inflammation.

The long-term outlook is better when inflammation is controlled and complications are detected early. However, the course cannot be predicted precisely for one person, and some people develop significant artery or heart damage despite treatment.

When to get medical help

Arrange a prompt, non-emergency review if you develop new or worsening limb pain with activity, differences between arm blood pressure readings, headaches, dizziness, vision changes, breathlessness, chest discomfort, or symptoms that previously occurred during a flare.

Also seek routine advice if medicine side effects are affecting you, you may have an infection while taking immune-suppressing treatment, or you are planning pregnancy. Do not wait for a scheduled appointment if symptoms are clearly changing.

Call emergency services for:

These symptoms can have several causes, but they require immediate assessment.

- Chest pressure or pain that may indicate a heart attack
- Sudden facial weakness, arm weakness, speech difficulty, or severe confusion
- Sudden loss of vision
- Fainting with chest, back, or abdominal pain
- Sudden severe chest, back, or abdominal pain, especially with weakness or collapse
- Severe breathing difficulty or a cold, pale, intensely painful limb

Common questions

Is Takayasu arteritis curable?

There is currently no cure that permanently removes the condition. Treatment can suppress inflammation and lead to remission, meaning there is no clear active inflammation. Relapses can still occur, so follow-up usually continues after symptoms improve.

Is Takayasu arteritis cancer?

No. It is an inflammatory condition affecting arteries, not a cancer. Some treatments also used for cancer may be used at much lower or different doses to control immune activity, but that

does not mean the condition is cancerous.

Can I exercise with Takayasu arteritis?

Many people can exercise, but the safest type and intensity depend on blood flow, blood pressure, heart involvement, and aneurysms. Stop and seek advice if activity causes chest pain, faintness, severe breathlessness, or marked limb pain. Exercise restrictions may be needed when an artery is severely narrowed or enlarged.

Is Takayasu arteritis inherited?

It is not usually inherited in a simple, predictable way. Certain genes may raise susceptibility, but most children or siblings of an affected person do not develop the condition. Routine screening of relatives is not generally based on family relationship alone.

Can Takayasu arteritis affect pregnancy?

Yes. High blood pressure and changes in blood flow can increase pregnancy risks, and some medicines are unsuitable during pregnancy. Pre-pregnancy planning allows treatment to be reviewed and the condition to be as stable as possible.

What is the life expectancy with Takayasu arteritis?

There is no single answer for everyone. Outlook is influenced by heart and aortic involvement, high blood pressure, aneurysms, reduced organ blood flow, treatment response, and access to long-term monitoring. Many people live for years with controlled inflammation, while severe cardiovascular complications can shorten life.

Sources

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