

Patient Information

Anterocollis Posture

(Forward bending of the neck)

What is Anterocollis?

Anterocollis is a medical condition where the **neck bends forward**, causing the **chin to drop toward the chest**. It results in a **flexed head and neck posture** that may be intermittent or fixed and can range from mild to severe.

This abnormal posture can significantly affect **vision, balance, swallowing, breathing, and daily function**. It is commonly associated with **neurological disorders**, especially **Parkinson's disease, multiple system atrophy (MSA)**, and **other types of dystonia**, but it may also occur in **muscle disorders** or as a side effect of certain medications.

What Causes Anterocollis?

Anterocollis is usually due to **abnormal muscle activity or muscle weakness** affecting the **neck muscles**.

Common underlying causes include:

1. **Neurological Conditions**
 - **Parkinson's disease**
 - **Multiple system atrophy (MSA)**
 - **Progressive supranuclear palsy (PSP)**
 - **Focal dystonia** (a movement disorder causing involuntary muscle contractions)
2. **Myopathy (Muscle Disease)**
 - Conditions that directly weaken the neck extensor muscles (e.g. **myositis, inclusion body myositis**)
3. **Medication Side Effects**
 - Certain drugs, particularly **dopamine agonists, antipsychotics, or antiemetics**, may induce dystonia or postural abnormalities
4. **Structural or Degenerative Conditions**
 - Cervical spine disease or arthritis causing postural change

In many cases, especially in neurological disorders, anterocollis results from a **combination of excessive contraction of neck flexors and weakness of neck extensors**.

Who is Affected?

- Most often seen in adults, particularly those with **Parkinsonian syndromes**
 - Can occur in people taking **certain medications**
 - Rare in children unless associated with congenital or genetic conditions
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Symptoms

Symptoms of anterocollis may vary in severity and presentation. Common features include:

- **Forward drooping of the head**
- Difficulty holding the head upright, especially when walking or sitting
- **Neck pain**, stiffness, or muscle fatigue
- **Obstructed vision**, needing to tilt the eyes upward
- Difficulty with **swallowing, speaking, or breathing**
- **Social embarrassment** or self-consciousness due to posture

In some cases, the abnormal posture improves when lying down or resting but worsens during activity.

Diagnosis

Diagnosis of anterocollis involves a **thorough clinical assessment** to identify the underlying cause and guide treatment.

Evaluation may include:

- **Neurological and physical examination**
- **Assessment of posture** while sitting, standing, and walking
- **Electromyography (EMG)** – to evaluate muscle activity and identify dystonia or weakness
- **Imaging (MRI or CT scan)** – of the brain or cervical spine if structural causes are suspected
- **Blood tests** – to screen for myopathy or inflammatory conditions
- **Medication review** – to check for drug-induced causes

In cases linked to Parkinson's disease or other neurodegenerative conditions, the diagnosis may be made as part of the broader disease management.

Treatment and Management

There is no one-size-fits-all approach to treating anterocollis. The best treatment depends on its **cause, severity, and impact on daily life**.

1. Medication Review and Adjustment

- If anterocollis is linked to a **medication**, changing or discontinuing that drug may lead to improvement.
- In Parkinson's or MSA, **adjusting dopaminergic therapy** may help.
- In cases with dystonia, medications like **anticholinergics, muscle relaxants, or benzodiazepines** may be considered.

2. Botulinum Toxin Injections (BoNT-A)

- Targeted injections into **overactive neck flexor muscles** can reduce muscle contraction and improve posture.
- Effects typically last **2–4 months**, and treatments may be repeated.
- Results vary by individual and underlying condition.

3. Physiotherapy and Rehabilitation

- **Stretching and strengthening exercises** focused on the neck and upper back
- **Postural training** with the help of physiotherapists
- Use of **mirror feedback** or **visual cues** to encourage upright positioning
- **Gait and balance training** to reduce fall risk

A physiotherapist with experience in neurological conditions can design a tailored programme.

4. Neck Supports and Bracing

- Use of a **soft or semi-rigid neck collar** can support the head temporarily during activities
- Custom-made braces or orthoses may help in moderate to severe cases
- Overuse of neck braces can lead to muscle deconditioning, so use is typically limited

5. Surgical Options

- Considered only in **rare, severe, and treatment-resistant cases**
- May include procedures such as **deep brain stimulation (DBS)** in selected patients with dystonia or Parkinson's disease

Living with Anterocollis

Living with anterocollis can be physically and emotionally challenging, especially when it affects vision, communication, and independence.

Helpful coping strategies:

- Use **adaptive furniture** such as high-backed chairs or reclining seats
- Take **frequent breaks** when upright to relieve strain
- Use **voice amplifiers or writing aids** if communication is difficult
- Modify home environments to reduce **fall risk**
- **Engage with support groups or mental health professionals** if anxiety or self-esteem is affected

A **multidisciplinary team**—including neurologists, physiotherapists, occupational therapists, and speech therapists—can provide coordinated care.

When to Seek Medical Advice

You should consult your doctor if you:

- Notice **progressive or sudden head drop**
- Experience **neck pain or discomfort**
- Have difficulty **eating, breathing, or speaking**
- Are taking medications that could contribute to postural changes
- Have an existing neurological diagnosis with new or worsening neck symptoms

Early intervention improves the chances of successful symptom management.

Summary

Feature	Details
Condition	Anterocollis (forward neck flexion)
Common Causes	Parkinson's disease, multiple system atrophy, dystonia, myopathy, certain medications
Main Symptoms	Head drooping, neck pain, difficulty with vision, swallowing, or speaking
Diagnosis	Clinical evaluation, EMG, imaging, and medication review
Treatment Options	Medication adjustment, botulinum toxin, physiotherapy, neck support, surgery (rare)
Prognosis	Chronic condition; symptoms may be managed with combined therapies

Support and Resources

UK-Based:

- **Dystonia UK**
www.dystonia.org.uk
Support for individuals living with dystonia-related conditions, including anterocollis.
- **Parkinson's UK**
www.parkinsons.org.uk
Information, support, and local services for people affected by Parkinson's.

International:

- **Michael J. Fox Foundation**
www.michaeljfox.org
Resources on Parkinson's-related symptoms and treatments.
- **Dystonia Medical Research Foundation (DMRF)**
www.dystonia-foundation.org
Educational materials and community support for dystonia patients.

If you or someone you care for is experiencing abnormal neck posture, speak to your healthcare provider for a comprehensive assessment and treatment plan.