



"Doctor, I can't burp"

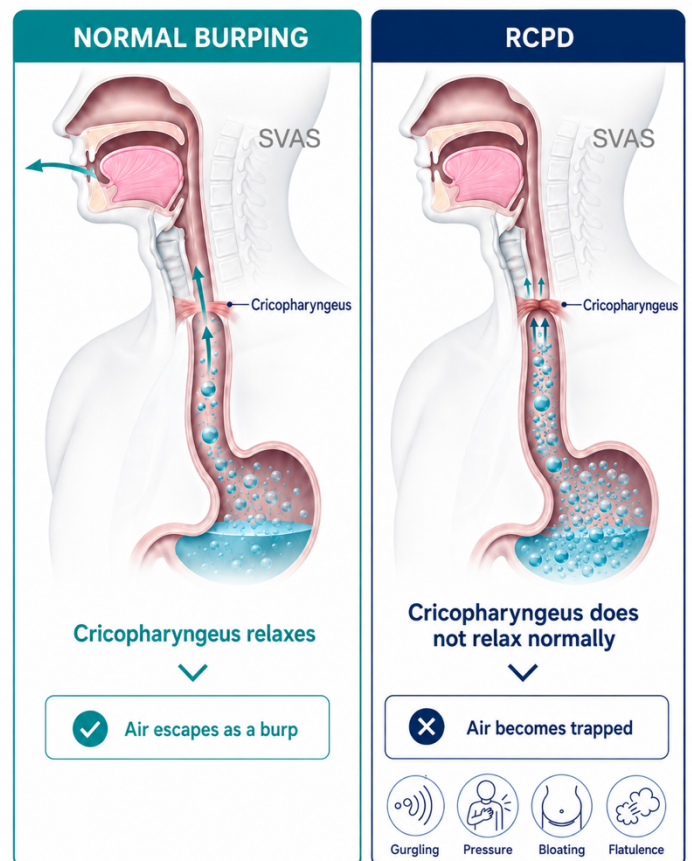
Understanding Retrograde Cricopharyngeal Dysfunction (RCPD)

A Missed Diagnosis Hiding in Plain Sight

General practitioners are often the first port of call for patients experiencing upper aerodigestive tract symptoms. While throat discomfort, bloating or chest pressure are common complaints, a lesser-known condition may be the underlying cause in a subset of patients: Retrograde Cricopharyngeal Dysfunction (RCPD). RCPD is characterised by an inability to burp. Although this may initially sound trivial, the downstream effects on comfort, diet, social confidence and quality of life can be substantial.

What Is RCPD?

First described as a clinical syndrome in 2019 by Dr Robert Bastian and colleagues, RCPD is attributed to failure of the cricopharyngeus muscle – the principal component of the upper oesophageal sphincter – to relax appropriately in response to oesophageal distension. In normal physiology, this relaxation allows gas to escape upwards as a burp. Patients with RCPD typically swallow normally. The dysfunction is specific to retrograde opening of the sphincter, distinguishing RCPD from conventional cricopharyngeal dysfunction associated with dysphagia.



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Otolaryngologist

Associate Professor Novakovic is an Australian trained Ear, Nose and Throat Surgeon. He completed his undergraduate degrees through the University of Sydney and obtained Fellowship of the Royal Australasian College of Surgeons in Otolaryngology, Head and Neck Surgery in 2007.

He completed subspecialty training in the fields of Head and Neck oncology (Toronto) and Laryngology and Neurolaryngology (New York) and is internationally recognised as a leader in the field of Voice and Upper Airway disorders. He is co-director of the Dr Liang Voice Program, a leading centre of excellence for research into laryngeal disorders.



Dr Thomas Stewart
Otolaryngologist

Dr Stewart is an Ear, Nose and Throat Surgeon and Laryngologist. He obtained his Fellowship of the Royal Australasian College of Surgeons in Otolaryngology, Head and Neck Surgery in 2019 after completing training in Sydney. He subsequently undertook further subspecialty training in Laryngology in New York in 2020.

He manages a range of General ENT conditions, including Rhinology and Sleep Surgery, and has a particular focus on Paediatric ENT, in addition to his subspecialty of Laryngology and Care of the Professional Voice.

Recognising the Symptoms

RCPD commonly presents in otherwise healthy adolescents and adults, although many patients report symptoms dating back to childhood. Because the condition remains under-recognised, patients may previously have been labelled with gastro-oesophageal reflux disease (GORD), irritable bowel syndrome (IBS), functional gastrointestinal symptoms or anxiety.

Common features include:

- Inability, or near inability, to burp
- Pressure in the lower neck, chest or upper abdomen
- Audible gurgling noises from the neck or chest, particularly after meals
- Abdominal bloating or distension
- Excessive flatulence
- Symptoms aggravated by carbonated beverages or large meals

The combination of lifelong inability to burp with prominent gas-related symptoms is particularly suggestive. Patients often describe learning to avoid carbonated drinks, certain foods or social situations because of predictable discomfort.

Making the Diagnosis

RCPD is primarily a clinical diagnosis based on the characteristic symptom pattern. There is currently no single radiologic, endoscopic or manometric test that is required to confirm the diagnosis in every patient.

Specialist assessment is useful to confirm that the history is consistent with RCPD, examine the upper aerodigestive tract where indicated, and exclude alternative structural or functional pathology. A therapeutic response to cricopharyngeal botulinum toxin injection can also support the diagnosis.

Treatment and Expected Outcomes

The principal treatment is botulinum toxin injection into the cricopharyngeus muscle. This is most commonly performed endoscopically under general anaesthesia, although an office-based percutaneous approach under local anaesthesia may be suitable in selected patients.

After treatment, patients commonly report:

- New ability to burp, often within days to a few weeks
- Reduction in chest or neck pressure and gurgling
- Improvement in bloating and gas-related discomfort
- Greater freedom with diet and social activities

Transient swallowing difficulty can occur as the cricopharyngeus relaxes after injection and is usually self-limited. Many patients experience durable benefit after a single treatment, suggesting that temporary chemodenervation may allow a more normal retrograde sphincter reflex to become established.

The majority of patients only require one treatment. Our experience is that long term results are achieved through practicing and provoking the RCPD symptoms by drinking carbonated drinks. In the context of a weakened cricopharyngeus muscle following a botulinum toxin injection, this will facilitate the involuntary release of gas. This completes the sensory feedback loop and helps facilitates the learning of the new burping motor pathway. Our experience is that with diligent practice, 80% of our patients achieve a long term reduction in symptoms.

We have recently published our initial experience, examining 109 patients with RCPD and found a significant reduction in symptom burden following treatment.

At the first follow up within four weeks, 71.6% reported complete symptom relief and 14.9% reported partial improvement.

Retrograde Cricopharyngeal Dysfunction: Patient Characteristics and Outcomes in Australia. Leong ZH, Emmett S, Sandham K, Stewart T, Novakovic D. ANZ J Surg. 2026 Mar.

When to Refer

- Persistent inability to burp with bloating, pressure or discomfort
- Characteristic gurgling noises in the neck or chest
- Longstanding gas-related symptoms not explained by routine gastrointestinal assessment
- Apparent GORD or IBS with prominent bloating and flatulence but poor response to standard therapy

For the right patient, recognising RCPD can end a long diagnostic journey. GP awareness is therefore important: a simple question – “Can you burp?” – may reveal a highly characteristic and treatable disorder.

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