summer 2025

sapa

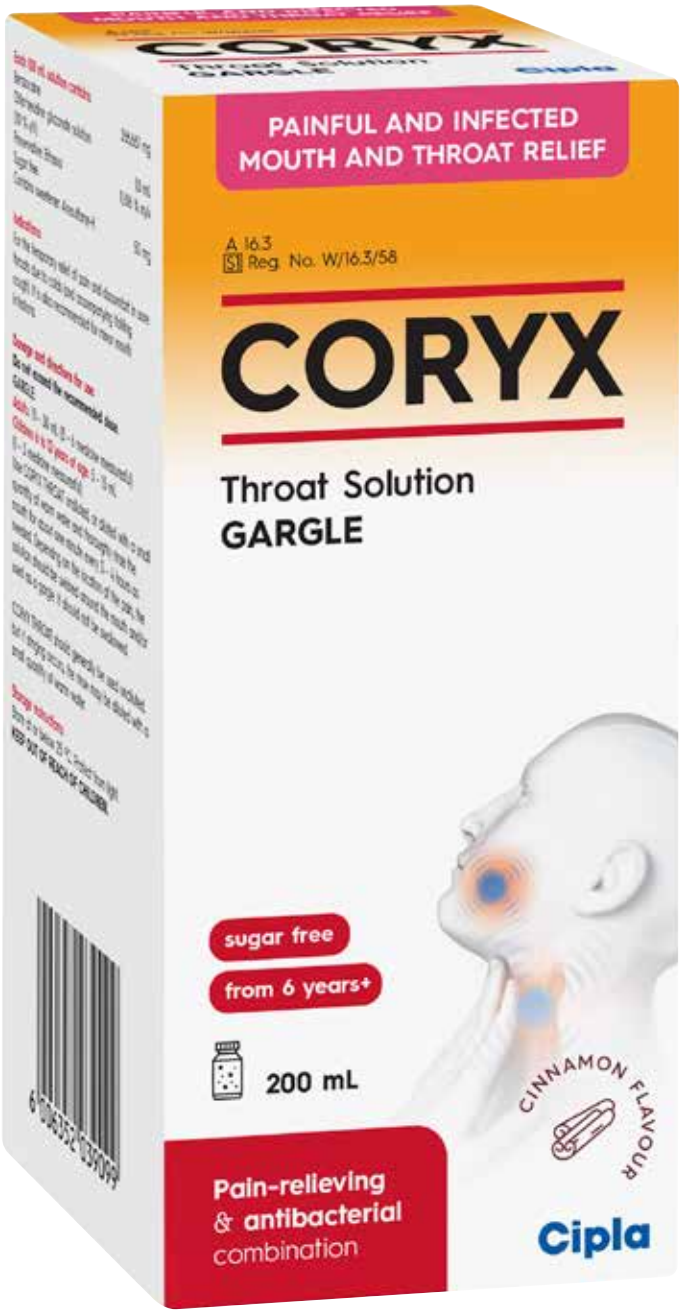
SA Pharmacist's Assistant

VOL 25 NO 4

ISSN: 1608-9634

CORYX

Cipla



NEW 200 mL GARGLE

Pain-relieving & antibacterial combination[1]

Sugar free[1]

From 6 years+[1]

200 mL

S1 W/16.3/58. Coryx Throat (Solution). Each 100 mL of solution contains: benzocaine 266,667 mg, chlorhexidine gluconate solution (20 % *v/v*) 1,0 mL. For full prescribing information, refer to the Professional Information approved by the medicines regulatory authority.

References: 1. Professional Information: Coryx Throat (Solution). CIPLA MEDPRO (PTY) LTD. Co. Reg. No. 1995/004182/07. Building 9, Parc du Cap, Mispel Street, Bellville, 7530, RSA. Website: www.cipla.co.za Customer Care: 080 222 6662. [1630358304]

summer 2025
sapa
SA Pharmacist's Assistant

www.sapajournal.co.za

OFFICIAL PSSA PUBLICATION FOR
PHARMACIST'S ASSISTANTS

Summer 2025

PUBLISHER

Medical & Pharmaceutical Publications (Pty) Ltd trading as Medpharm Publications in collaboration with The Pharmaceutical Society of South Africa.

The Pharmaceutical Society of South Africa,
435 Flinders Lane, Lynnwood, 0081
PO Box 75769, Lynnwood Ridge, 0040
Tel: (012) 470 9550, Fax: (012) 470 9556
E-mail: nitsa@pssa.org.za
Website: www.pssa.org.za

Medpharm Publications,
Centurion Wine & Art Centre,
123 Amkor Road, Lyttelton Manor
PO Box 14804, Lyttelton, 0157
Tel: (012) 664-7460, Fax: (012) 664-6276
E-mail: info@medpharm.co.za

Editor
Natalie Schellack

Editorial Assistant
Nitsa Manolis

Consulting Editor
Andy Gray

Advertising Sales
Cheryl Stulting
Cell: 082 894 8119
E-mail: cheryl@medpharm.co.za

Manuscript Management
Robyn Marais

Production
Ina du Toit
Monique Goosen

Layout
Celeste Strydom

Subscriptions
info@medpharm.co.za

SILVERLAB DAILY HEALTHCARE

A breakthrough in ear nose and throat home care

Ear, nose, and throat (ENT) ailments account for about 20% of all adult doctor visits and up to 40% of visits in children. Accessible and affordable solutions to these common problems are long overdue. This is where Silverlab Healthcare shines. As South Africa's leading producer of pharmaceutical-grade ionic (Ag^+) colloidal silver they offer innovative solutions that are set to transform the treatment of ENT infections.

Why ionic (Ag^+) colloidal silver?

During the COVID-19 pandemic, silver gained recognition for its proven antiviral effects against the SARS-CoV-2 virus, as shown in both human lung cell studies and in COVID-19 patients. Its effectiveness also extends to a wide range of other airway viruses and bacteria specially formulated products are now available to support comprehensive care for ENT infections.

Ear

With summer here, cases of swimmer's ear (*acute otitis externa*) are expected to increase. Silverlab ionic (Ag^+) Colloidal Silver Ear Rescue Drops provide antiviral, antibacterial, and antifungal activity, making them an accessible option for the immediate care of infected ear canals. Silver also helps soften wax build-up and supports the healing of other ear infections, such as *otitis media*.

Nose

A 2023 study reshaped our understanding of respiratory infections by highlighting how nasal temperature influences susceptibility. Silverlab's specialised ionic (Ag^+) Colloidal Silver Nasal Spray, designed for the intranasal environment, can be used safely on a daily basis to reduce the risk of illness throughout the year while supporting sinus health.

Throat

The throat is another common site for airway infections. With its broad-spectrum antiviral and antibacterial properties and excellent safety profile, Silverlab's ionic (Ag^+) Colloidal Silver Healing Spray is the ideal throat spray for individuals of all ages.

For added support, the Silverlab range of ENT care products can be combined with a daily oral dose of 20 ml Silverlab Immune Booster & Anti-Microbial Liquid.

Use Silverlab pharmaceutical-grade ionic (Ag^+) colloidal silver daily and take the sting out of ear, nose, and throat infections.

SILVERLAB
DAILY HEALTHCARE

SUMMER TIME!

Daily nasal comfort & defense – naturally

- *Prevents & manages nasal infections naturally*
- *No rebound congestion or dependency*
- *Safe for children and prolonged use*
- *Fast relief from summer pollens & hay fever (allergic rhinitis)*

This summer, don't just treat the symptoms—**protect the source.**
Silverlab Nasal Spray helps stop infections before *they start,* keeping nasal passages clean, calm and healthy. Unlike medicated decongestants that can't be used long-term, Silverlab is **safe for extended daily use**, even for children. Whether you're commuting, at school, or traveling—Silverlab Nasal Spray keeps your clients protected every day.
Available at all major pharmacies.

More info

Reimagining pharmacy: leadership renewal, professional ontology, and a global call for impact

Natalie Schellack

As South Africa marks Pharmacy Month under the banner "Think Health, Think Pharmacy – One Profession, Many Roles", the landscape of the profession is being redrawn by dynamic leadership transitions, explicit calls for social accountability, and renewed reflection on pharmacy's foundational ontology. Globally, the FDA's action in September to initiate a label change for acetaminophen (Tylenol and similar products) to reflect evidence suggesting that use by pregnant women may be associated with an increased risk of neurological conditions such as autism and ADHD in children is not merely a regulatory footnote—it is a cautionary tale in the collective evolution of pharmaceutical practice, reminding all South African pharmacists that our currency lies not only in the products we dispense, but in the calibrated judgment we apply to their risks and benefits, especially for vulnerable populations. The recent appointment of Professor Renier Coetzee as President, with Johannes Ravele as Deputy President, and Lynette Terblanche as Honorary Treasurer, signals a generational and strategic shift. Their stewardship will influence not only national policy discussions but also international participation in humanitarian health agendas.

Yet, while individual appointments guide direction, it is the collective evolution of the profession itself that warrants critical appraisal. Pharmacy in 2025 is negotiating the ever-increasing tension between traditional dispensing and a broader, more epistemologically plural identity: pharmacist as clinician, diagnostician, advocate, and innovator. This is evident in the way local pharmacists tackle emergent public health imperatives—whether in vaccine campaigns, chronic disease prevention, or health literacy efforts—which now require fluency beyond compounding and distribution, demanding skills in data interpretation, patient dialogue, and agile systems thinking.

This evolution is foregrounded in the International Pharmaceutical Federation's (FIP) World Pharmacists Day campaign: "Think Health, Think Pharmacist" (https://www.fip.org/wpd2025-supporter). FIP's call to action is unambiguous: pharmacists must translate global knowledge into local impact, employ digital tools thoughtfully, and advocate for policy frameworks in which every pharmacist operates at the top of their licence, accountable for both technical quality and societal good. Creating a supporter graphic online and contributing to the digital chorus of pharmacy's value reminds us that international solidarity and local relevance are mutually reinforcing, not mutually exclusive.

September invites reflection on what it means to be a pharmacist—philosophically and practically. The ontology of the profession is under revision: from a mechanistic, product-focused practice to a systemically aware, people-centred, and ethically driven enterprise. The public health outreach campaigns of today are not simply celebratory rituals but critical experiments in interprofessional, community-based care. Their success or failure must ultimately be measured by health outcomes, not just the volume of interventions delivered.

Pharmacy is at an inflection point. Leadership renewal must foster deep engagement with complexity, humility in the face of uncertainty, and an unwavering commitment to equity and evidence. The moment demands not only that we do more, but that we become more—more critical, more collaborative, more human. Let this Pharmacy Month be the marker where we collectively move from celebrating what pharmacy is, to courageously defining what it can—and must—become.

Natalie Schellack

Editor: SA Pharmaceutical Journal

Bibliography

- Downey T, Moore JE, Millar BC. Factors affecting vaccine uptake rate: the story of measles, mumps and rubella. Reviews and Research in Medical Microbiology. 2021;32(3):158-65. https://doi.org/10.1097/MRM.0000000000000274.
- FIP World Pharmacists Day.[Internet] 2025. Available at https://www.fip.org/wpd2025-supporter.
- National Department of Health (NDoH), 2023. Standard Treatment Guidelines and Essential Medicines List. Paediatric Hospital Level 2023 Edition. Pretoria: South Africa.
- Nyamuzihwa T, Venter F, Lewis-Everitt SL. The South African community pharmacy sector-an untapped resource. Frontiers in Public Health. 2023;11:10375701. https://doi.org/10.3389/frph.2023.1173576.
- Pharmaceutical Society of South Africa (PSSA), 2025. Pharmacy Month; 80th AGM announcements.
- Sin Hidge B, Gosai R, Mafarafara NG, et al. The future of pharmacy in South Africa: embracing the digital revolution. South African Pharmaceutical Journal. 2025;92(2):54-

Managing **painful conditions** in the **pharmacy**

Sumari Davis
Amayeza Info Services
Corresponding author, email: *sumari@amayeza-info.co.za*

Abstract

Acute pain is defined as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage and is typically prompted by a specific event that is likely to resolve". Initial management of an acute injury involves PRICE therapy to minimise swelling and pain. Topical application of nonsteroidal anti-inflammatories drugs (NSAIDs) may provide up to 50% reduction in pain. Paracetamol is the most widely used first-line analgesic but does not have anti-inflammatory effects. NSAIDs provide pain relief from inflammatory conditions such as musculoskeletal and joint pain, gout flare-ups, dysmenorrhoea, acute low back pain and migraines. Combination products containing an NSAID and paracetamol may provide maximum analgesic benefit with decreased dosage requirements of individual ingredients, which may result in less side-effects.

Introduction

Acute pain is defined as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage and is typically prompted by a specific event that is likely to resolve".[1] Patients frequently ask their pharmacist for advice about painful conditions.[2] The goal of treating acute pain is to decrease suffering, improve function and minimise adverse effects.[1]

Symptoms and history

Accurate pain assessment is vital for effective management and requires a detailed patient history. Information on the Site, Onset, Character, Radiation, Associated symptoms, Time course, Exacerbating or relieving factors, and Severity (SOCRATES), is useful when considering treatment options.[3] Other important information that will affect choice of treatment includes the age of the patient, other underlying medical conditions and medication use.[2]

Non-pharmacological management of pain

Minor strains and sprains can often initially be treated at home by using PRICE therapy:[2]

- Protection – protect the affected area from further injury, for example by using a support such as crutches to reduce weight on the knees or ankles or a sling to support an injured shoulder.
- Rest – reduce physical activity and exercise to avoid further injury.
- Ice – application of a wrapped ice pack every 2–3 hours for 15–20 minutes may help reduce pain and swelling.
- Compression – apply elastic bandages to the affected areas (must fit snugly but not too tight) to help reduce swelling.
- Elevation – keep the affected area above the level of the heart whenever possible to help reduce swelling.

Although heat may be helpful in reducing pain, it should be avoided for the first few days of an injury as application of heat can worsen swelling.[2]

Pharmacological management of acute pain

Topical analgesics

Nonsteroidal anti-inflammatory drugs (NSAIDs) such as diclofenac, ibuprofen, flurbiprofen and benzydamine are available for topical administration, either as a gel or as transdermal patches, to treat mild to moderate acute pain. They can be applied to affected areas with unbroken skin.[1] Although there is a high placebo response to topical analgesics,[2] topical NSAIDs provide up to 50% reduction in pain compared with placebo.[1] There is a low risk of side-effects such as gastrointestinal symptoms, even with long-term use of topical NSAIDs. Nonetheless, patients at high risk of gastrointestinal side-effects should be cautioned against long-term or continuous use.[1]

Table I: Analgesics available over-the-counter in South Africa for management of painful conditions in adults[4,5]

Active ingredient	Preparation	Products	Adult dose
Topical agents			
Benzydamine	Gel	Norflex Gel	Apply 3–6 times daily, review after 10 days
Diclofenac	Gel	Fenacrate, Panamor, Voltaren	Apply 3–4 times daily to affected areas
Flurbiprofen	Patch	TransAct	Apply every 12 hours to affected area
Piroxicam	Gel	Rheugesic	Apply 3–4 times daily, review after 2 weeks
Oral preparations			
Paracetamol	Tablets	Adco-Napamol, Dolorol, Donapan, Gulf Paracetamol, Panado	1–2 tablets every 4–6 hours Maximum dose: 4 g in 24 hours
Paracetamol	Effervescent tablets	Panado Parafizz	2 tablets dissolved in water up to 4 times a day
Diclofenac	Dispersible tablets	Catafast D Panamor	1 tablet dissolved in water every 8 hours
Diclofenac Sodium	Tablets	Diclophenac 50 Oethman Panamor AT-50	100–150 mg per day in 2–3 divided doses
Diclofenac Potassium	Tablets	K-Fenak OTC	100–150 mg per day in 2–3 divided doses for patients ≥ 14 years of age
Ibuprofen	Tablets	Betagesic Brufen Lenafen Nurofen	1–2 tablets every 4 hours. Maximum dose: 1 200 mg per day for patients ≥ 12 years of age
Mefenamic acid	Capsules	Ponstan	500 mg three times a day

*Always refer to the manufacturer's information leaflet for dosing recommendations and contraindications.

Oral analgesics

Paracetamol is the most widely used first-line analgesic and although it has antipyretic properties, it does not have the anti-inflammatory properties of NSAIDs.[1,3] Paracetamol provides pain relief within 40 minutes, with peak efficacy at one hour after oral administration.[3] Paracetamol is generally considered safe in pregnancy and breastfeeding but should be used at the lowest effective dose.[2,7] The maximum dose for adults is 4 g (8 x 500 mg tablets) per day. Doses higher than 4 g per day can result in liver toxicity. All possible overdoses of paracetamol should be taken seriously and the patient referred to a hospital. It is important to warn patients not to take multiple products that contain paracetamol to avoid inadvertent paracetamol overdosing.[2]

NSAIDs provide pain relief from inflammatory conditions such as musculoskeletal and joint pain, gout flare-ups, dysmenorrhoea, acute low back pain and migraines.[1] There are many NSAIDs with similar properties and the choice of treatment will depend on cost, availability, dosing schedule and adverse effect profile.[1] NSAIDs available over-the-counter (OTC) include aspirin, ibuprofen, mefenamic acid, diclofenac sodium and diclofenac potassium.[4] Diclofenac potassium immediate-release tablets are absorbed faster than diclofenac sodium and have a quicker onset of action, making them particularly suitable for acute painful inflammatory conditions.[6] Aspirin may be used for transient musculoskeletal pain, headache and dysmenorrhoea.[2] However, its OTC use has diminished as it tends to cause more gastric irritation than paracetamol or ibuprofen and also interacts with a large number of drugs.[2]

NSAIDs may increase the risk of gastrointestinal side-effects and renal damage and may also exacerbate asthma.[7] These adverse effects are more likely to occur in the elderly, and paracetamol may be a better choice in these cases.[2] Patients should be reminded to use NSAIDs cautiously, by taking the lowest effective dose of the NSAID for the shortest possible time.

Combination products

Paracetamol and NSAIDs have complementary mechanisms of action and studies suggest that combining them can provide superior pain relief compared to using each agent alone.[7] Such combinations may provide maximum analgesic benefit with decreased dosage requirements of individual ingredients, which may lessen the risk of potential side-effects.[1]

While there are several combination analgesics available OTC in South Africa, it is recommended to use simple combinations (e.g. paracetamol plus ibuprofen) for acute pain instead of combinations that contain a myriad of other ingredients, such as antihistamines and/or codeine.

Table II: Ingredients often used in combination with analgesics available over the counter[7]

Active ingredient	Notes
Caffeine	May have an added analgesic effect
Codeine	Has a mild analgesic effect Associated with side-effects such as constipation and dependence with long-term use
Diphenhydramine	Antihistamine with sedatory effects, increased fall risk from dizziness, sedation and hypotension especially in elderly
Mephenesine	Muscle relaxant
Orphenadrine	Muscle relaxant
Promethazine	Antihistamine with sedatory effects

Cipla

K-Fenak OTC contains diclofenac **potassium,** which **dissolves and absorbs faster** than diclofenac **sodium.**[1]

ANTI-INFLAMMATORY

Targets

- PAIN
- SWELLING
- INFLAMMATION

Indications:[2]

For the treatment of fever or mild to moderate pain of inflammatory origin, for a maximum treatment period of 5 days.
The emergency treatment of acute gout attacks, for a maximum treatment period of 3 days.

S2 Reg. No. A38/3.1/0651. K-Fenak OTC. Each film-coated tablet contains Diclofenac potassium 50 mg. For full prescribing information, refer to the Professional Information approved by the medicines regulatory authority. References: 1. Chuasuwan, B. *et al.* Biowaiver monographs for immediate release solid oral dosage forms: Diclofenac sodium and diclofenac potassium. *Journal of Pharmaceutical Sciences* **98(4)** 1206–1219 (2009). 2. Professional Information: K-Fenak OTC (Film-coated tablets).
CIPLA MEDPRO (PTY) LTD. Co. Reg. No. 1995/004182/07. Building 9, Parc du Cap, Mispel Street, Bellville, 7530, RSA. Website: www.cipla.co.za. Customer Care: 080 222 6662. [1641064596]

Some of the other components used in various products available OTC are listed in Table II.

Conclusion

Patients frequently ask for treatment of minor painful conditions in the pharmacy and the goal is to decrease suffering, improve function and minimise adverse effects. A proper history (SOCRATES) is necessary to enable selection of an appropriate treatment option. Paracetamol is widely used as the first-line treatment for minor painful conditions but NSAIDs are considered treatment of choice for inflammatory conditions. Combination of two ingredients with complementary mechanisms of action may provide better pain relief with lower doses of each active ingredient resulting in fewer side-effects.

References

1. Amaechi O, Huffman MM, Featherstone K. Pharmacologic therapy for acute pain. American Family Physician. 2021;104(1):63-72.
2. Blenkinsopp A, Duerden M, Blenkinsopp J. Symptoms in the Pharmacy: A Guide to the Management of Common Illnesses and Disease Prevention. John Wiley & Sons; 3 Feb 2025.
3. Hussien E, Aboelnile D, Aboelnile A, Kelly L. Management of acute pain. Surgery (Oxford). 2025;43(4):240-8. https://doi.org/10.1016/j.mpsur.2025.01.011.
4. MIMS Guide to OTC products Volume 30, 2024. CTP printers Cape Town.
5. Rossiter D, Blockman M, Barnes KI, editors. South African Medicines Formulary. South African Medical Association; Online. Available from: https://samf-app.com/book/all/AgOjOmkeZCiefzddgiHw.
6. Diclofenac K (diclofenac potassium tablets 50 mg) Product monograph. Sanis Health Inc. Last revised 10 May 2021. Available from: https://pdf.hres.ca/dpd_pm/00061028.PDF.
7. Raff M. Acute pain guidelines: guideline. South African Family Practice. 20161;58(5):20-41. https://doi.org/10.4102/safp.v58i5.4563.

Managing **a sore throat** in the **pharmacy**

Sumari Davis
Amayeza Info Services
Corresponding author, email: *sumari@amayeza-info.co.za*

Abstract

A sore throat, or pharyngitis, is a common condition characterised by pain or irritation in the throat that worsens with swallowing or talking. It is most frequently caused by viral infections such as the common cold, influenza, or COVID-19, but can also result from bacterial infections, allergies, acid reflux, irritants, or overuse of the voice. Symptoms typically include throat discomfort, redness, hoarseness, and swollen glands, and may be accompanied by fever, headache, and fatigue if infection is present. Management depends on the underlying cause: viral infections generally resolve spontaneously with supportive care, while bacterial infections may require antibiotic therapy. Appropriate home care measures including hydration, rest, and avoidance of irritants can ease discomfort. Over-the-counter options such as oral analgesics, local anaesthetics, and antiseptic mouthwashes or lozenges can provide symptomatic relief.

Introduction

A sore throat, also called pharyngitis, is pain or irritation of the throat that often feels worse with talking or swallowing.[1] This happens when the mucosa (lining of the throat) becomes inflamed. Sore throats are common and normally clear spontaneously within a week. Management involves non-drug measures and medical treatments to relieve the pain and discomfort of a sore throat, but it is also important to know when to refer a patient for further medical attention.[1]

Causes

Most sore throats are caused by a viral infection (including a common cold, influenza, COVID-19, etc.) and can often be treated with rest, pain relievers and other measures to reduce symptoms. However, other causes of a sore throat may include:[1,2,3]

- Bacterial infections
- Tonsillitis
- Allergies
- Acid reflux
- Mouth breathing
- Overuse (screaming or talking a lot)
- Irritants (eating spicy foods, drinking hot liquids or smoking)
- Glandular fever
- Tumours

Symptoms

The symptoms of a sore throat vary depending on the cause and may include:[1,2,3,4]

- Scratchy, raw, tender and irritated feeling in the throat
- Redness in the back of the mouth
- Pain that feels worse when swallowing or talking
- Pain in the ears or down the sides of the neck
- Sore swollen glands in the neck or jaw
- Swollen red tonsils
- Mild cough
- Bad breath
- Hoarseness

If an infection is causing the sore throat, patients may suffer from additional symptoms such as fever, headache, runny nose, cough, an upset stomach, fatigue and white patches in the throat or on the tonsils.

At home care

If a sore throat is due to overuse, it may be useful to limit speaking to rest the voice. Also try and avoid irritants such as spicy foods and hot liquids. Drinking soothing liquids such as warm broth or tea with lemon and honey can help dry, scratchy throats.[2] Honey should not be given to children younger than 12 months of age due to the potential risk of botulism poisoning. Sucking on lozenges or hard candy increases secretion of saliva that adds moisture to the throat.

Avoid giving hard lozenges to children under five years of age to prevent choking. Gargling with a saltwater solution can ease inflammation and irritation in the throat. Mix half a teaspoon of salt into a cup of water to use as a gargling mixture.[3]

Medical treatment

Treatment will depend on the cause of the sore throat and while viral infections usually clear up on their own within a week, bacterial infections may need treatment with antibiotics for around 10 days.[2] Pain may be treated with a mild pain reliever.[5] Several products are available as either sprays, oral rinses or lozenges. Table I provides a summary of some of these products available over-the-counter (OTC) in South Africa.

Children younger than six years usually cannot gargle properly and oral sprays are also not recommended for young children.[5] For patients younger than six months, treatment with oral paracetamol (syrup or suspension) may be recommended.[6] Patients older than 12 months may be treated with paracetamol or ibuprofen.[7] Aspirin should never be administered to children due to the risk of Reye's syndrome, which is a serious but rare illness that can harm the liver or brain.[6]

Always refer to the manufacturer's package insert for dosing and safety information.

Anti-inflammatory mouthwash and sprays are available for treatment of short-term symptomatic relief of acute sore throat in adults.[8] Diclofenac is a nonsteroidal anti-inflammatory drug with analgesic and anti-inflammatory properties and is available in a throat spray or mouthwash for adult use. Apply the throat spray as two sprays orally three times a day. The mouthwash may be used as a rinse or gargle twice daily, using 15 ml undiluted, or diluted with a small amount of water. These products should not be swallowed. The safety of diclofenac mouthwash and spray has not been established in children, the elderly, pregnancy, breastfeeding or in patients with renal or hepatic impairment.[9]

When to refer to the doctor

If a patient has any trouble breathing or is unable to swallow (which can lead to unusual drooling), the patient needs immediate medical attention.[1]

Adults should see a doctor for any sore throat that lasts for longer than a week or hoarseness that lasts longer than two weeks. Any swelling in the neck and face or lumps in the throat requires a visit to the doctor. Patients with joint pain, earache, rash, bloody mucus, fever higher than 38,3 degrees Celsius and repeated sore throats also need to be referred.[1]

Conclusion

Sore throat is usually a minor, self-limiting condition that can arise from various infectious and non-infectious causes. Most cases can be effectively managed with supportive home care and OTC remedies to relieve pain and inflammation. For children and individuals with persistent, severe, or recurrent symptoms, medical evaluation is recommended to rule out bacterial infection or other underlying conditions. Pharmacist's assistants can play an important role in providing information to help relieve the pain and other symptoms of a sore throat.

Table I: Some products available OTC in South Africa to manage a sore throat[4]

Active ingredient	Products available	Formulation
ORAL ANALGESICS		
Aspirin	Disprin® Bayer® Aspirin Gulf® Aspirin	Dispersible tablets Tablets Tablets
Ibuprofen	Brufen® Brufen®	Tablets Suspension
Paracetamol	Calpol® Panado® Panado® Painblok® Parafizz® 500	Suspension Tablets Syrup Tablets Effervescent tablets
LOCAL ANALGESICS		
Diclofenac	Oralact® Oralact®	Throat spray Mouth wash
Flurbiprofen	Strepsils® Intensive	Lozenges
LOCAL ANAESTHETICS		
Benzydamine	Andolex® Andolex®	Oral rinse Spray
LOCAL ANTISEPTICS		
Chlorhexidine gluconate	Corsodyl®	Mouthwash
Povidone Iodine	Betadine® Dermadine® Podine® Septadine®	Mouthwash and Gargle
Chlorhexidine and cetylpyridinium (antiseptics)	GUM®, Paroex®	Mouthwash
Dichlorobenzyl alcohol and Amylmetacresol (antiseptics)	Strepsils®	Lozenges
COMBINATION PRODUCTS		
Benzocaine (local anaesthetic) and cetylpyridinium (antiseptic)	Medi-Keel A® Endcol®	Lozenges
Benzocaine and dibucaine (local anaesthetics) with cetylpyridinium (antiseptic)	Medi-Keel A®	Throat gargle
Benzydamine (local analgesic) and cetylpyridinium (antiseptic)	Andolex® C	Lozenges
Benzydamine (local analgesic) and chlorhexidine (antiseptic)	Andolex® C Oranix® Coryx® Throat Gargle Orochlor®	Oral rinse Spray Throat gargle

References

1. Mayo Clinic Sore Throat. Available from: https://www.mayoclinic.org/diseases-conditions/sore-throat/symptoms-causes/syc-20351635. Accessed 14 Oct 2025.
2. Cleveland Clinic Sore Throat (pharyngitis). Available from: https://my.clevelandclinic.org/health/diseases/8274-sore-throat-pharyngitis. Accessed 14 Oct 2025.
3. NHS Sore Throat. Available from: https://www.nhs.uk/symptoms/sore-throat/. Accessed 14 Oct 2025.
4. Davis S. Soothing a sore throat. SA Pharmacist's Assistant. 2024;24(2):5.
5. Wald ER. Patient education: Sore throat in children (Beyond the Basics). Accessed 14 Oct 2025.
6. CDC Sore Throat Basics. Available from: https://www.cdc.gov/sore-throat/about/index.html. Accessed 14 Oct 2025.
7. OTC Mims guide to OTC products. 2024;30.
8. Strepsils Intensive Spray (flurbiprofen 8,75 mg) Professional Information. Reckitt Benckiser Pharmaceuticals Elandsfontein. 25 Nov 2025.
9. OralAct Throat Spray (diclofenac 1,48 mg/ml) Professional Information. Actor Pharma (Pty) Ltd. Midrand. 18 May 2022.

S2 OralAct™

Cipla

DICLOFENAC

Anti-inflammatory | Analgesic[1,2]

SA's **1st & ONLY DICLOFENAC** MOUTHWASH & THROAT SPRAY[3]

- Peach and mint flavour[1,2]
- 0% ALC. Alcohol free mouthwash[2]
- No staining of teeth or damage to teeth enamel[4]
- No numbness of oral mucosa[4]
- Low systemic exposure and effects[1,2]

INDICATIONS:[1,2]

- Symptomatic treatment of localised inflammatory diseases associated with pain of the oropharyngeal cavity which may be caused by conditions such as but not limited to pharyngitis; pharyngotonsillitis; tonsillitis; gingivitis; mucositis and mouth ulcers.
- May also be used to treat pain and inflammation resulting from minor dental treatment or dental extraction.
- **OralAct™ Mouthwash** may be used to treat oral mucositis resulting from radiotherapy treatment in oncology patients.

S2 OralAct™ Throat Spray. Reg No. 48/16.5/0299. 1 spray (corresponding to 0,2 mL) contains 0,3 mg diclofenac free acid. S2 OralAct™ Mouthwash. Reg No. 48/16.5/0130. Each 1 mL of solution contains 0,74 mg diclofenac free acid. For full prescribing information refer to the Professional Information approved by the medicines regulatory authority.

References: 1. Professional Information: OralAct Throat Spray. 2. Professional Information: OralAct Mouthwash. 3. Data on file. 4. Mainali A, Bajracharya D. Efficacy of 0.074% diclofenac mouthwash in pain management of recurrent aphthous ulcers. *J Nepal Dent Assoc* **13**, 42-45 (2013).

CIPLA MEDPRO (PTY) LTD. Co. Reg. No. 1995/004182/07. Building 2, Junxion Park, 10 Elephant Lane, Century City, 7441, RSA. Website: www.cipla.co.za. Customer Care: 080 222 6662. [1674664174]

Over-the-counter **topical treatment** options for **allergic conjunctivitis**

Stephani Schmidt
Amayeza Info Services
Corresponding author, email: *stephani@amayeza-info.co.za*

Abstract

Allergic conjunctivitis (AC) is a common ocular condition that affects individuals of all ages but is particularly prevalent among those with atopic tendencies. It is a hypersensitivity reaction to environmental allergens such as pollen or animal dander. Symptoms include itching (a hallmark symptom of AC), tearing, redness and eyelid swelling. While it is not a vision-threatening condition, AC can cause discomfort and impair quality of life. Management begins with allergen avoidance and non-pharmacological measures such as cold compresses and lubricating eye drops. Several topical over-the-counter products are available to help relieve symptoms of AC.

Introduction

Allergic conjunctivitis (AC) is a common eye condition that affects at least 20–40% of the world's population annually.[1,2] AC occurs when allergens such as pollen, dust mites or animal dancer cause inflammation of the conjunctiva (the clear membrane covering the white part of the eye and the inside of the eyelids).

AC typically does not pose a threat to vision. However, it can cause substantial suffering and has a negative impact on the patient's quality of life.[1,2] People with AC often have other allergy-related conditions such as allergic rhinitis (hay fever) or asthma.[1-4]

The allergic cascade

The ocular mucosa has a large surface area, which is highly accessible to allergens, such as pollen, dust mites, and mould spores.[3] The allergic cascade begins when an allergen comes into contact with the ocular surface in a person who is allergic to that specific allergen.[2,3] This triggers mast cells to degranulate (break down), leading to the release of various mediators. Among these mediators, histamine plays an important role in producing the characteristic signs and symptoms associated with AC such as itchiness, tearing and redness.[3-6]

Signs and symptoms

Usually both eyes are affected, but sometimes one eye can be affected more than the other.[2] Signs and symptoms include:[1-5]

- Pruritus (itching is a characteristic sign)
- Tearing (typically watery and nonpurulent [clear] discharge)
- Redness
- Chemosis (puffy eyelids and swelling)
- Blurred vision
- Burning
- Mild photophobia (light sensitivity)

AC is commonly associated with other atopic conditions such as allergic rhinitis, asthma and atopic dermatitis.[1,3] Therefore, other symptoms may also be present.[2]

In addition, dry eye and AC can also co-exist in the same patient, and each condition can worsen the other.[2,6] Reasons for this include a higher concentration of allergens on the surface of the eye due to tear film insufficiency and/or reduced ability to rinse away foreign substances such as allergens.[6]

Types of AC

AC can be divided into acute, seasonal allergic conjunctivitis (SAC) and perennial allergic conjunctivitis (PAC). Key differences are listed in Table I.

Patanol®
(Olopatadine 0.1% eye drops, solution)

Close to allergens. Far from allergies. Optimal relief.[1,2]

Multiple action[2]

- Rapid onset antihistaminic action[2]
- Long duration mast cell stabilising action[2,4]
- Prevents inflammatory cytokine production[1,2]

The **#1* Allergy eye drop** that helps treat the signs and symptoms of ocular allergy.[1-3]

Scan QR code for full Professional Information

Itching[2]	Redness[2]	Lid swelling[2]	Tearing[2]	Chemosis[2]
✓	✓	✓	✓	✓

*IQVIA TPM, South Africa, ATC4 S1G3 OCUL.A.-ALLERG.MULTI.ACTN, for the period MAT Dec 2023, Data in units, reflecting estimates of real-world activity. Copyright IQVIA. All rights reserved.

References: 1. Patanol® Eye Drops Professional Information, 11 November 2021. 2. Rosenwasser LJ, O'Brien T, Weyne J. Mast cell stabilization and anti-histamine effects of olopatadine ophthalmic solution: a review of pre-clinical and clinical research. *Curr Med Res & Opin* 2005;21(9):1377-1387. 3. Based on internal analysis by Adcock Ingram (Pty) Ltd using data from the following source: IQVIA TPM, South Africa, ATC4 S1G3 OCUL.A.-ALLERG.MULTI.ACTN, for the period MAT Dec 2023, Data in units, reflecting estimates of real-world activity. Copyright IQVIA. All rights reserved. 4. Kaliner MA, Oppenheimer J, Farrar JR. Comprehensive review of olopatadine: the molecule and its clinical entities. *Allergy Asthma Proc* 2010;31(2):112-119.

S2 PATANOL® Eye Drops, solution. Reg. No.: 33/15.4/0189. Contains 1,11 mg/mL olopatadine hydrochloride equivalent to 1 mg/mL olopatadine, preserved with benzalkonium chloride 0,01 % (m/v).

For full prescribing information, refer to the Professional Information approved by the South African Health Products Regulatory Authority (SAHPRA). **Holder of Certificate of Registration:** Novartis South Africa (Pty) Ltd. Magwa Crescent West, Waterfall City, Jukskei View, 2090. Tel. +27 11 347 6600. Co. Reg. No.: 1946/020671/07. Novartis Adverse Drug Reaction Reporting: Email: patientsafety.sacg@novartis.com. Web: https://novartis.com/report. Tel: 0861 929 929. Marketed and Distributed by Adcock Ingram Limited. Co. Reg. No.: 1949/034385/06. Private Bag X69, Bryanston, 2021, South Africa. Customer Care: 0860 ADCOCK / 232625. www.adcock.com FA-11225667. Expiry date: 14 August 2026.

19891

NOVARTIS

adcock ingram prescription

Table I: Key differences between acute, seasonal and perennial AC[1-3,6]

	Causes	Notes
Acute AC	Environmental exposure, typically to a known allergen, such as cat dander	• Sudden-onset • Symptoms can develop as quickly as 30 minutes after exposure • Symptoms include intense episodes of itching, tearing, redness, chemosis (swelling of the eye lid) • Self-limiting, symptoms usually resolve within 24 hours once exposure to allergen has ended
SAC	Exposure to outdoor airborne pollens, e.g. tree, grass and weed pollens (depending on the season and geographical location)	• Starts more gradually; develops over days to weeks • Occurs during a particular pollen season(s) • Commonly associated with rhinitis
PAC	Environmental exposure to year-round, usually indoor allergens, e.g. animal dander, mould spores and dust mites	• Occurs year-round (chronic) • Symptoms are usually mild, and fluctuate (waxing and waning)

Treatment

Management typically begins with allergen avoidance and non-pharmacological measures such as cold compresses and artificial tear drops. Topical over the-counter treatment (OTC) options are listed in Table II.

Non-pharmacological

The first step in managing SAC and PAC is to implement preventative measure to avoid or reduce exposure to known allergens. However, this is often challenging since many allergens are airborne, making it difficult to completely prevent contact with the ocular surface.[1,6]

Patients should be advised to:[1,6]

- Use a cool compress. This may help to reduce swelling and discomfort.
- Avoid rubbing their eye(s). Rubbing may worsen symptoms.
- Avoid or reduce contact lens wear during the symptomatic periods (if applicable) as allergens can stick to the contact lens surfaces.

When to refer

Referral to an ophthalmologist is recommended for people who:[1,2,6,7]

- Have problems with vision, sensitivity to light or ocular pain.
- Present with ocular discomfort but no ocular itching. Intense itching is one of the characteristic symptoms of AC; if itching is not present, other ocular disorders should be considered. Other

Table II: OTC topical therapies for the management of AC[3-11]

Topical OTC products	Notes	Treatment considerations	Examples
Artificial tears	Lubricate the eyes; provide a cooling and soothing effect Help to dilute and flush allergens from the eye(s) Preservative-free formulation may be more suitable for frequent use, contact lens wearers and for those with sensitive eyes Drops are usually preferred during the day, and more viscous products and ointments at bedtime as they may cause temporary blurring of the vision	Patients with mild symptoms, as well as those with both allergic conjunctivitis and dry eye generally respond well to frequent use (2–4 times daily) of artificial tears or lubricating gels	Tears Naturale® II Artelac® – product range Optive® – product range Xailin® – product range
Antihistamines with mast cell-stabilising properties	Dual acting: prevent histamine from binding to histamine receptors and prevent mast cells from breaking down and releasing mediators responsible for the allergic reaction Fast acting Effect is longer lasting compared to single acting topical antihistamines	First line treatment for SAC and PAC A more suitable option than vasoconstrictor-containing products for those who have frequent attacks (more than two days per month).	Azelastine (Optilast®) Epinastine (Relestat®) Ketotifen (Ketagex®) Olopatadine (Patanol®, Olopagen®, Olopagen Once daily®)
Decongestants	Cause decongestion and whitening of the eye Have little effect on itching Do not treat the cause of the symptoms Regular use (for longer than 2 weeks) can lead to rebound redness	Episodic treatment (< 2 weeks at a time) of ocular redness associated with minor eye irritation	Naphazoline (Oculosan®, Safyr Bleu®) Oxymetazoline (Oxylin®, Allergex® eye drops)
Antihistamines	Block the effects of histamine in the eye	Relieve signs and symptoms associated with the release of histamine such as itching, tearing and redness	
Decongestant/ antihistamine combinations	Decongestant/antihistamine combination usually works better than single-agent topical products containing vasoconstrictors or antihistamines only	Short-term use (< 2 weeks to prevent rebound redness)	Tetryzoline/antazoline combination eye drops (Spersallerg®, Gemini®)
Mast cell stabilisers	Inhibit degranulation of mast cells, reduce the release of histamine and other allergic mediators from mast cells Efficacy reached 5–14 days after treatment has been started	Prophylactic treatment option for people with SAC who cannot use other topical treatments Start treatment two to four weeks before the pollen season starts	Sodium cromoglycate (cromolyn sodium)

eye conditions, such as viral or bacterial conjunctivitis may have similar symptoms to AC.

- Do not respond to two or three weeks of consistent therapy with an antihistamine with mast cell-stabilising properties.
- Have co-existing allergic rhinitis and/or asthma that are not well controlled.

From a practical point of view

Avoid repetitive blinking

Repetitive blinking generates a negative pressure in the eye and could cause topical medication to wash out more quickly, thus reducing the contact time and absorption into ocular surfaces.[6]

When using multiple eye drops, for example a topical medication and artificial tears

It is advisable to instil the 1st drop and then wait a few minutes (3–5 minutes) before instilling the 2nd drop. This is to avoid diluting the first drop and/or to ensure that the instillation of a second drop does not wash out the first.[6]

Reducing systemic side-effects

Absorption of topical agents into the circulation may lead to systemic side-effects.[8] Drugs may enter the circulation directly from the capillaries present in the conjunctiva, but to a greater extent from the nasal mucosa, which receives drainage from the eye's tear ducts, or even from the stomach via the back of the throat after being swallowed.[8] The risk of systemic side-effects may be minimised by:[6,8]

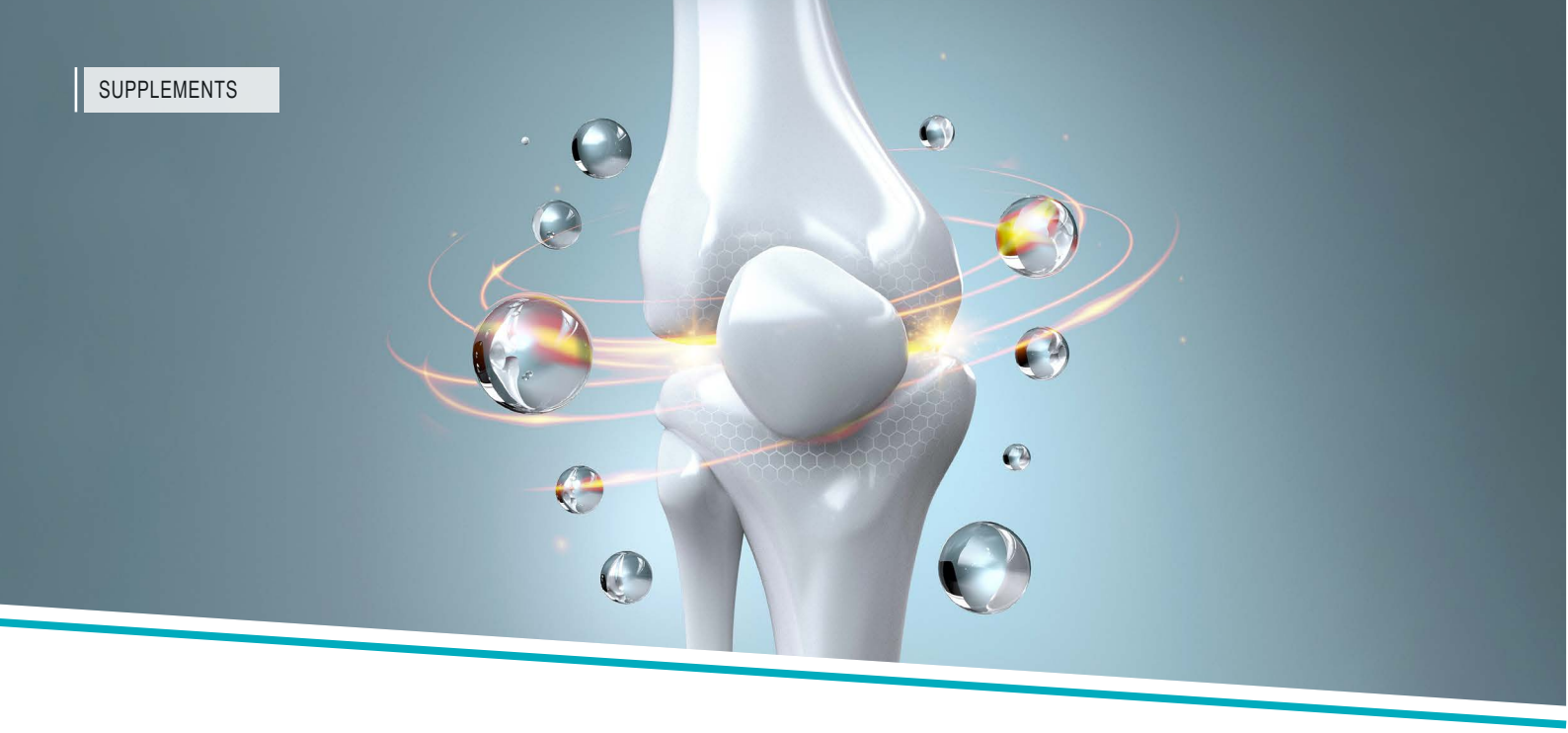
- Applying pressure on the lacrimal sac for 1–2 minutes after instilling the drop or
- Closing the eye after instilling the drop; this also increases the contact time with the cornea, leading to better absorption of the drug into ocular tissues.

Conclusion

While not vision-threatening, SAC and PAC can impair quality of life. Management involves allergen avoidance, non-pharmacological measures such as cold compresses and lubricating eye drops. There is an array of OTC topical treatment options available for the management of AC. Antihistamines with mast cell stabilising properties are considered first-line therapy for AC. If symptoms persist or cannot be managed with the use of OTC medication, the patient should be referred to the doctor.

References

1. Baab S, Le PH, Gurnani B, et al. Allergic conjunctivitis. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024. Available from: https://www.ncbi.nlm.nih.gov/books/NBK448118/.
2. Hamrah P, Dana R. Allergic conjunctivitis: Clinical manifestations and diagnosis. In: UpToDate, Connor RF (Ed), Wolters Kluwer. (Updated 22 March 2024; Accessed on 2 Sept 2025).
3. Dupuis P, Prokopich CL, Hynes A, Kim H. A contemporary look at allergic conjunctivitis. Allergy, Asthma & Clinical Immunology. 2020;16(1):5. https://doi.org/10.1186/s13223-020-0403-9.
4. Davis S. Topical treatment options for allergic conjunctivitis. Davis S. Topical treatment options for allergic conjunctivitis. South African Family Practice. 2015;57(4):10-5. https://doi.org/10.4102/safp.v57i4.4326.
5. Tariq F. Allergic conjunctivitis: Review of current types, treatments, and trends. Life (Basel). 2024;14(6):650. https://doi.org/10.3390/life14060650.
6. Hamrah P, Dana R. Allergic conjunctivitis: Management. In: UpToDate, Connor RF (Ed), Wolters Kluwer. (Updated 30 April 2025; Accessed on 2 Sept 2025).
7. Steyn L. Allergy or infection? A red-eye review. SA Pharmaceutical Journal. 2021;88(5):10-5.
8. South African Medicines Formulary (SAMF) online. 15th Edition [Homepage on the Internet]. (Last updated Dec 2024; accessed 10 Sept 2025).
9. eMIMS 2018 [subscription based]. South Africa. A division of Arena Holdings (Pty). Ltd. (Accessed 17 Sept 2025).
10. South African Health Products Regulatory Authority (SAHPRA). Registered Health Products Database. [Homepage on the internet]. Available from: https://medapps.17.org.za:6006/. Accessed 17 Sept 2025.
11. Weng J, Fink MK, Sharma A. A critical appraisal of the physicochemical properties and biological effects of artificial tear ingredients and formulations. Int J Mol Sci. 2023;24(3):2758. https://doi.org/10.3390/ijms24032758.



Nutrition and supplements for bone health

Roslynn Steenkamp
Registered Dietitian
Corresponding author, email: roslynnvanschoor@gmail.com

Abstract

Bone is a special type of tissue that provides the body with structural support, protects vital organs, and works with the muscles to support movement. It also stores essential minerals like calcium. While genetics play a significant role in determining bone structure, lifestyle factors such as exercise and diet are essential for supporting bone health. Poor bone health can negatively affect growth and development in children and may lead to osteoporosis and an increased risk of fractures in older populations. Supplementation with essential nutrients such as calcium, vitamin D, magnesium, and even probiotics can help support bone health.

Introduction

Bone health is influenced by many factors, including age, hormones, physical activity, and nutrition. After reaching peak bone mass in early adulthood, bone density naturally declines with age.[1,2] When bone density declines significantly, it can lead to osteoporosis, a condition that weakens bone structure and increases the risk of fractures. Globally, osteoporosis affects an estimated 200 million people, making it a major public health concern and a growing burden on healthcare systems.[2] Nutritional intake plays a vital role in maintaining bone strength by influencing bone metabolism, structure, and mineralisation. Supporting bone health from early childhood through adulthood is essential for building and preserving strong bones.[3] Ensuring adequate intake of key nutrients, such as calcium, vitamin D and magnesium can help optimise bone development and reduce the risk of osteoporosis later in life.[1] In cases where dietary intake is insufficient, supplements may help support long-term bone health.[3,4]

Bone structure and the role of nutrition and lifestyle

Bone is a living, active tissue made up of minerals, collagen, and proteins that give it both strength and flexibility. Throughout life, our bones are constantly being broken down and rebuilt; a process called remodelling. This helps them stay strong and adapt to the physical demands we place on them. During childhood and adolescence, we build up bone tissue, reaching what's called peak bone mass (PBM) in our early twenties. This is an important milestone, as it helps determine how strong our bones will be later in life.[3] While genetics play a significant role in how much bone we build, nutrition, exercise, and hormones are also key factors. After PBM is reached, bone mass will gradually decrease with age. This process occurs more rapidly in post-menopausal women.[1] This natural decline in bone mass can lead to weaker bones and a higher risk of fractures and other disorders.[2] While aging is inevitable, bone loss is not entirely out of our control. Nutrition and lifestyle behaviours play a key role in maintaining bone strength. Unhealthy habits like smoking, excessive alcohol use, and inactivity negatively affects bone health. Following healthy lifestyle habits is key to maintaining long-term bone health. A balanced diet rich in protein, calcium, vitamin D, magnesium, and other key nutrients also plays a vital role in keeping bones strong.[1]

Key nutrients for bone health

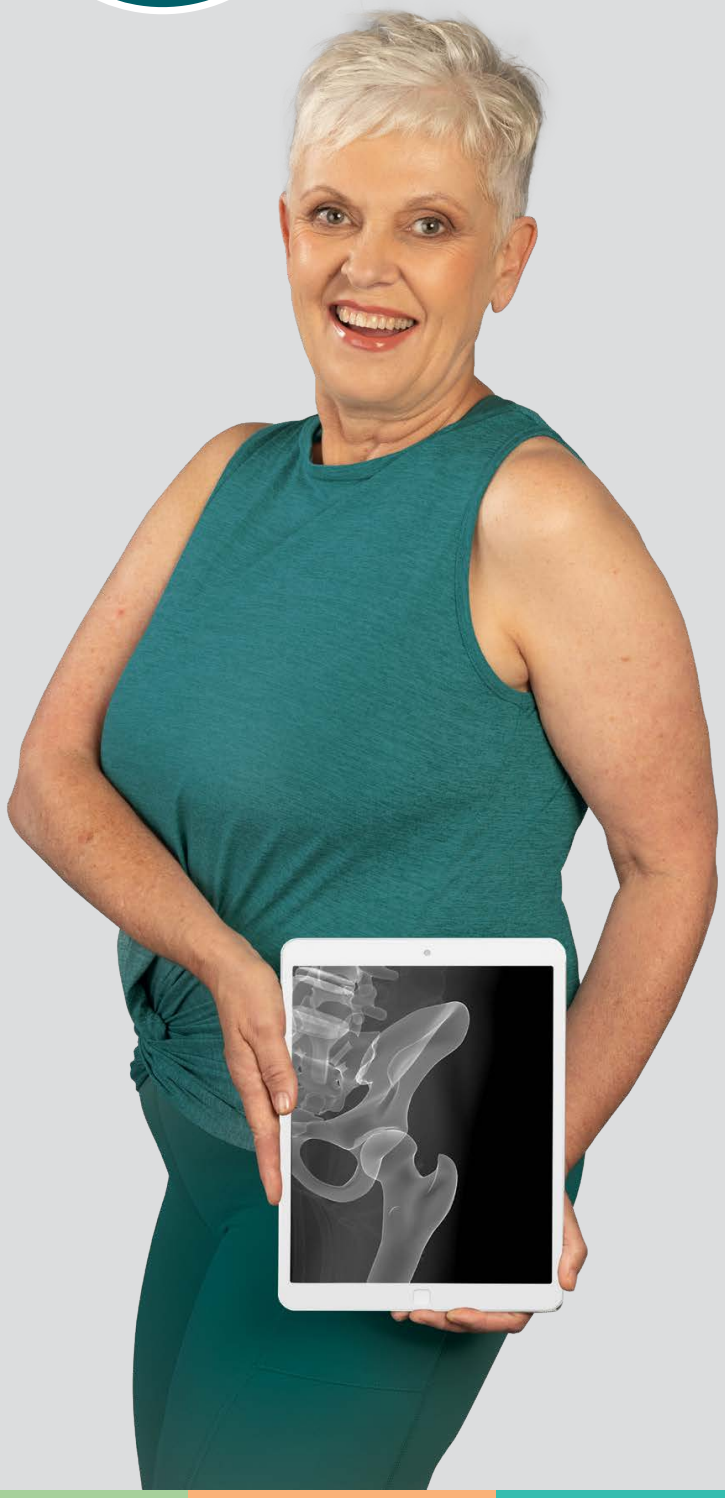
Calcium

Calcium plays a vital role in bone health, with over 99% of the body's calcium stored in bones and teeth. The remaining 1% helps regulate muscle contraction, hormone production, and mineral balance. To maintain healthy bones, calcium is absorbed in the gut and regulated by hormones like vitamin D, parathyroid hormone (PTH), and calcitonin. A daily intake of at least 1 000 mg is recommended in adults to support bone development and reduce bone loss. Rich sources of calcium include dairy products, leafy greens, and calcium-fortified foods. Although supplementation can help reach calcium requirements, studies show that calcium from the diet, especially dairy products, may be more effective than taking calcium

SOUTH AFRICA'S No.1 PRESCRIBED & BEST SELLING CALCIUM RANGE[1,2]

MY BONES - MY B-CAL® RANGE

To help prevent osteoporosis



BONE HEALTH SIMPLIFIED

Calcium
For healthy bones and teeth[3]

Vitamin D3
Promotes calcium absorption[3]

Magnesium
An essential mineral that helps prevent muscle cramps[3,4]

Vitamin K2
Directs calcium to bones and helps prevent arterial calcification[5,6]

Vitamin C
Promotes collagen formation[3]

LARGEST RANGE OFFERING SUITED TO INDIVIDUAL NEEDS[2]

B-CAL®-DM | **B-CAL®-D** | **B-CAL®-K2** | **B-CAL® ULTRA** | **B-CAL®**

References: 1. Impact Rx December 2024. **2.** IMS Data November 2024. **3.** B-CAL-K2 (tablets) professional information, September 2020. **4.** Pickering G., *et al.* Magnesium Status and Stress: The Vicious Circle Concept Revisited. *Nutrients*. 2020;12(12):3672. **5.** Maresz K. Proper calcium use: vitamin k2 as a promoter of bone and cardiovascular health. *Integrative Medicine*. 2005;14(1):34-39. **6.** Inova data on file.

Scheduling Status: S0 **Proprietary name (and dosage form): B-Cal®-K2 Tablets. Composition:** Each tablet contains: 500 mg Calcium, 100 mg Magnesium, 60 mg Vitamin C, 1000 IU Vitamin D3, 45 µg Vitamin K2. **Complementary Medicines:** Health Supplement D34.12 Multiple substance formulation. This unregistered medicine has not been evaluated by the South African Health Products Regulatory Authority (SAHPRA) for its quality, safety or intended use. For further information refer to the Professional Information available at www.inovapharma.co.za. Further information is available on request from iNova pharmaceuticals. **Name and business address:** iNova Pharmaceuticals (Pty) Ltd, **Co. Reg. No.** 1952/001640/07, 15E Riley Road, Bedfordview. **Tel. No.** 011 087 0000. ww.bcal.co.za. www.inovapharma.co.za. 23321L. IN2320/25.

inova pharmaceuticals

supplements. Studies in adolescents have shown that milk-based calcium supplementation can increase bone mineral content and sustain benefits even after supplementation ends, underscoring calcium's critical role in achieving peak bone mass and preventing bone loss later in life.[1]

Vitamin D

Vitamin D is essential for bone health as it helps the body absorb calcium effectively. Our skin can produce vitamin D when exposed to sunlight, specifically ultraviolet-B (UVB) rays. This is the body's main natural source of vitamin D. However, during winter months or in regions with limited sunlight, UVB exposure may not be strong enough for the skin to make adequate vitamin D. Even in sunny countries like South Africa, lifestyle changes, like spending more time indoors, can reduce vitamin D synthesis and increase the risk of deficiency. Dietary sources of vitamin D include fatty fish (like tuna and salmon), eggs, and foods fortified with vitamin D. Adults over the age of 50 are advised to take 800–1 000 IU of vitamin D daily. While large studies have shown limited benefits of vitamin D supplements in healthy adults, supplementation can still be valuable for individuals with low vitamin D levels, osteoporosis, or those at risk of bone loss. Certain groups, such as the elderly, people following vegetarian or vegan diets, those with limited sun exposure, and athletes are particularly vulnerable to deficiency. For athletes, maintaining optimal vitamin D levels is especially important to help prevent stress fractures and support bone strength, particularly in sports where a lower body weight is preferred.[1]

Magnesium

Magnesium is another important nutrient for bone health. It helps regulate calcium transport and supports vitamin D metabolism, both of which are essential for maintaining strong bones. Research shows that higher magnesium intake is linked to better bone mineral density (BMD). While its direct impact on reducing fracture risk is still unclear, magnesium plays a key role in bone structure and turnover. Good dietary sources include nuts, legumes, and whole grains. If someone isn't getting enough magnesium from their diet (350 mg for women and 300 mg for men) they might need a supplement. Taking magnesium along with calcium and vitamin D can help support strong and healthy bones.[4]

Other Nutrients

Beyond calcium, magnesium, and vitamin D, several other nutrients have also been shown to support bone health. Potassium helps maintain acid-base balance in the body, which reduces calcium loss and supports bone density, especially in older adults.[1] Copper supports the formation of collagen and elastin, which are essential for bone structure.[5] Zinc plays a role in bone tissue renewal and mineralisation, helping to build and maintain strong bones.[6] Vitamin K binds calcium to the bone matrix and supports the activity of bone-building cells. Vitamin K deficiency has been linked to lower bone mineral density and increased fracture risk.[7] Together, these nutrients help maintain skeletal health.

Probiotics

Probiotics are beneficial bacteria that help maintain a healthy gut, and recent research shows they may also support bone health. Strains like *Lactobacillus reuteri* and *Lactobacillus helveticus* have been shown to reduce bone loss by improving calcium absorption, reducing inflammation, and supporting bone-building cells. In postmenopausal women and older adults, probiotic supplements have helped slow bone turnover and improve bone density. This makes probiotics a useful addition to bone health strategies.[8]

Supplementation

A wide range of bone health supplements is available in local pharmacies, including single-nutrient options like calcium, vitamin D, and magnesium, as well as combination products that support overall bone health. These can be especially helpful for vulnerable groups such as older adults, postmenopausal women, and people with restricted dietary intake of the bone-essential nutrients.[1,2,3] In cases where dietary intake is insufficient, supplements may help meet nutritional requirements and support bone health.[8] Table I summarises some of the bone health supplements available in pharmacies.

Table I: Bone Health Supplements

Supplement	Key nutrients
B-Cal®-K2	Calcium: 500 mg Magnesium: 100 mg Vitamin C: 60 mg Vitamin D_3: 1 000 IU Vitamin K_2: 45 mcg
Biogen: CalMag Max	Calcium: 600 mg Magnesium: 125 mg Zinc: 12.5 mg Boron: 1.5 mg Copper: 2 mg Manganese: 2 mg Vitamin K_2: 45 mcg Vitamin D_3: 500 IU
Caltrate Plus® Bone Supplement	Calcium: 600 mg Vitamin D_3: 500 IU Magnesium: 40 mg Zinc: 7.5 mg Copper: 0.5 mg Manganese: 1.8 mg
Lifestyle Health: Calcium +	Calcium: 600 mg Magnesium: 125 mg Zinc: 7.5 mg Manganese: 2.6 mg Copper: 1 mg Vitamin D_3: 600 IU
Optical®	Calcium: 500 mg Collagen (Hydrolysed type 1): 150 mg Vitamin D_3: 1 000 IU Vitamin K_2: 45 mcg Magnesium: 150 mg Selenium: 60 mcg Zinc: 25 mg
MenaCal.7®	Calcium: 500 mg Vitamin K_2: 45 mcg Vitamin D_3: 1000 IU
Ultimate Calcium	Calcium: 500 mg Collagen (Hydrolysed type 1): 150 mg Magnesium: 150 mg Potassium: 75 mg Zinc: 15 mg Manganese: 3 mg Copper: 1 mg Silicon: 1 mg Vitamin K_2: 45 mcg Selenium: 30 mcg Vitamin D_3: 1000 IU

Conclusion

Building and maintaining strong bones throughout the life cycle requires a combination of good nutrition, regular physical activity, and healthy lifestyle choices. While genetics influence bone structure, nutritional intake plays a key role in supporting bone health and reducing the risk of osteoporosis. Ensuring adequate intake of calcium, vitamin D, magnesium, and other nutrients can help protect bone strength. In cases where dietary intake of these nutrients is insufficient, supplements can be useful.

References

1. Wilson-Barnes SL, Lanham-New SA, Lambert H. Modifiable risk factors for bone health & fragility fractures. Best Pract Res Clin Rheumatol. 2022;36(3):101758. https://doi.org/10.1016/j.berh.2022.101758.
2. Rizzoli R, Chevalley T. Bone health: biology and nutrition. Current Opinion in Clinical Nutrition and Metabolic Care. 2024;27(1):24-30. https://doi.org/10.1097/MCO.0000000000000988.
3. Proia P, Amato A, Drid P, et al. The impact of diet and physical activity on bone health in children and adolescents. Front Endocrinol (Lausanne). 2021;12:704647. https://doi.org/10.3389/fendo.2021.704647.
4. Groenendijk I, van Delft M, Versloot P, van Loon LJC, de Groot LCPGM. Impact of magnesium on bone health in older adults: A systematic review and meta-analysis. Bone. 2022;154:116233. https://doi.org/10.1016/j.bone.2021.116233.
5. Zhang Z, Tang H, Du T, Yang D, The impact of copper on bone metabolism. Journal of Orthopaedic Translation. 2024;47:125131. https://doi.org/10.1016/j.jot.2024.06.011.
6. O'Connor JP, Kanjilal D, Teitelbaum M, Lin SS, Cottrell JA. Zinc as a therapeutic agent in bone regeneration. Materials (Basel). 2020;13(10):2211. https://doi.org/10.3390/ma13102211.
7. Rodríguez-Olleros Rodríguez C, Díaz Curiel M. Vitamin K and bone health: a review on the effects of vitamin K deficiency and supplementation and the effect of non-vitamin K antagonist oral anticoagulants on different bone parameters. J Osteoporos. 2019;2019:2069176. https://doi.org/10.1155/2019/2069176.
8. De Sire A, De Sire R, Curci C, Castiglione F, Wahli W. Role of dietary supplements and probiotics in modulating microbiota and bone health: The Gut-Bone Axis. Cells. 2022;11:743. https://doi.org/10.3390/cells11040743.

Helping patients with **haemorrhoids**

Lynda Steyn
Amayeza Info Services
Corresponding author, email: lynda@amayeza-info.co.za

Abstract

Haemorrhoids are swollen veins in the rectum or around the anus. Many patients have no symptoms, but some may experience itching, pain, swelling, or bleeding, especially after passing stools. Haemorrhoids are not usually dangerous, but it is important to recognise when symptoms might mean something more serious. Pharmacist's assistants can support patients by making them feel comfortable to discuss their problem, suggesting simple measures such as eating more fibre, drinking plenty of fluids, using stool softeners, or trying soothing creams and suppositories. If symptoms do not improve, or if the patient has severe bleeding, pain, fever, or other concerning signs, referral to a doctor is essential.

Introduction

Haemorrhoids, commonly referred to as "piles", are enlarged or swollen veins in the lower rectum.[1,2] While haemorrhoids on their own do not cause serious health problems, it is important to rule out other serious conditions which may present with similar symptoms for which referral may be needed.[3]

Classification

Haemorrhoids may originate internally, within the anus, or externally on the outside of the anus.[1,2] Internal haemorrhoids may prolapse (bulge) outside the anus and are known as prolapsed haemorrhoids.[4] There are different grades or degrees according to which internal haemorrhoids may be classified.[2]

- Degree I: Confined to anal canal and cannot be seen
- Degree II: Prolapse (bulge) through anal sphincter during a bowel movement (defaecation) and then reduce by themselves
- Degree III: Pushed back through anal sphincter by patient after bowel movement
- Degree IV: Remain persistently prolapsed and outside the anal canal

Causes

Haemorrhoids can occur commonly in the elderly, in pregnant women, in people who sit for prolonged periods of time, in patients with chronic constipation, or after chronic diarrhoea.[5,6] Internal haemorrhoids are associated more frequently in patients with chronic constipation, where straining to pass a hard stool can lead to an increase in pressure, allowing for blood vessels around the rectum to swell.[4] External haemorrhoids are often associated with a blood clot forming in a vein just under the skin of the anus.[4] The occurrence of haemorrhoids has also been genetically linked.[2]

Symptoms

Almost half of patients with haemorrhoids are asymptomatic.[5] Patients who do experience symptoms may complain of discomfort around the perianal area, such as itching (pruritis), burning, pain and swelling.[2,3] Patients may report a bulging outside the anal canal (or prolapse) which they may see or feel.[1] Internal haemorrhoids are less likely to be painful (unless prolapsed) and are often associated with painless rectal bleeding after defaecation, which is seen as bright red blood on the toilet paper, or in the toilet bowl.[7] External haemorrhoids can form a clot (become thrombosed), and are more likely to be painful, which can make cleaning the area difficult.[7]

Treatment

Asymptomatic haemorrhoids do not need to be treated, and in many cases, resolve spontaneously.[3] However, patients experiencing symptoms may have their symptoms managed accordingly.[7]

Underlying constipation should be addressed by recommending:[2]

- An increased intake of fibre in the diet and an adequate fluid intake

acti PROCT®

Fast, clinically proven, with natural ingredients for the relief of haemorrhoids (piles) symptoms[1]

ActiProct® Gel works within **60 seconds** to relieve the pain & discomfort caused by Grade I & II haemorrhoids (piles)[1]

Ask for Proct!

5-way action to effectively:[1]

- Relieve haemorrhoids & anal discomfort
- Reduce inflammation
- Relieve pain
- Soothe itch
- Protect from irritation & friction during toilet visits

Clinically proven[1]

Fast cooling effect within 60 seconds[1]

Easy application[1]

2QR-Complex extracted from Aloe Vera[1]

Reference: 1. ActiProct® instructions for use, February 2025.

Actiproct® (Class B Medical Device). For further details, refer to the Instructions For Use enclosed in the product packaging. Actiproct® is a registered trademark of Karo Healthcare. Klara Norra Kyrkogata 33, 111 22, Stockholm, Sweden. Marketed by Adcock Ingram Limited. Co. Reg. No. 1949/034385/06. Private Bag X69, Bryanston, 2021. Customer Care: 0860 ADCOCK/232625. www.adcock.com. 04.09.20251000001838 April 2025.

adcock ingram gastroenterology

Table I: Topical preparations for the symptomatic treatment of haemorrhoids[2,3,8]

Preparations	Main ingredients and examples	Notes
Local anaesthetics	Lignocaine (e.g. Remicaine® jelly)	Relieves pain and itching May cause sensitisation Limit use to a maximum of 2 weeks
Astringents	Bismuth and zinc oxide preparations (e.g. Anusol® suppositories and ointment)	Form a protective layer, helping to relieve irritation and inflammation Bismuth also has a mild antiseptic action
Combination skin protectors and soothers	Witch Hazel, glycerine, aloe combination wipes (e.g. Anusol® soothing and cleansing wipes)	Emollient, protective and soothing properties Protection of perianal skin Forms a barrier to help prevent irritation and itching Suppositories are recommended for internal haemorrhoids and should be inserted after a bowel movement
	White soft paraffin	
	Aloe vera preparations (e.g. ActiProct® gel, Presto Gel and suppositories)	
	Shark liver oil (Preparation H suppositories and ointment)	
Topical corticosteroid combination	Prednisolone and cinchocaine (e.g. Scheriproct® ointment and suppositories)	Requires a prescription (S4) Corticosteroid combination with local anaesthetic Prolonged use of topical steroids should be avoided Should not be used continuously for more than 7 days

- A review of the patient's medication history for medications that may cause constipation (such as codeine-containing products)

Increasing oral fibre intake naturally or with fibre supplements (such as psyllium seed, ispaghula husk or methylcellulose) helps manage constipation and straining.[3]

Symptomatic treatment of haemorrhoids can provide relief and, depending on the symptoms, may include the use of:[7]

- Stool softeners
- Topical treatments (suppositories or creams)
- Analgesics

Other methods for relieving symptoms include:[6]

- Using moist, unscented toilet tissue or cotton pads to clean anus gently after a bowel movement
- Warm baths
- Applying an ice pack (wrapped in cloth) to reduce pain and swelling

When to refer

Any patients whose symptoms have not improved after a week of trying over-the-counter methods, who have persistent or heavy bleeding (with or without pain), significant pain, persistent changes in bowel habits, abdominal pain and/or vomiting, and fever or weight loss, should be referred to their doctor for evaluation. Pregnant women should always check with their doctor before using any topical application.[2,9]

Conclusion

The topic of haemorrhoids may be particularly embarrassing for the patient to discuss with the pharmacist or assistant. It is important, however, to put the patient at ease in order to effectively advise them on symptomatic relief. While haemorrhoids are generally asymptomatic and self-limiting, asking pertinent questions is important to see if referral to a doctor is warranted.

References

1. Bleday R. Patient education: Hemorrhoids (Beyond the Basics). In: UpToDate. [updated Aug 2025; cited Oct 2025].
2. Blenkinsopp A, Duerden M, Blenkinsopp J. Symptoms in the pharmacy: a guide to the management of common illnesses and disease prevention. John Wiley & Sons. Chapter 4 Gastrointestinal Tract Problems. (2025
3. Perry K. Hemorrhoids. Medscape. [updated May 31, 2022; cited Oct 2, 2025]. Available from: https://emedicine.medscape.com/article/775407-overview.
4. MIMS Guide to OTC products Volume 30, 2024. CTP printers Cape Town.
5. Bleday R, Breen E. Hemorrhoids: Clinical manifestations and diagnosis. In UptoDate. [updated 11 Sep 2025; cited 2 Oct 2025].
6. Nall R. What external hemorrhoids look like and how to get rid of them. MedicalNewsToday. [updated March 28, 2025; cited Oct 2,2025]. Available from: https://www.medicalnewstoday.com/articles/322732.
7. Ansari P. Hemorrhoids. Merck Manual. [updated Jan 2025; cited Oct 2025]. Available from: https://www.msdmanuals.com/professional/gastrointestinal-disorders/anorectal-disorders/hemorrhoids.
8. South African Medicines Formulary (SAMF). Edition 15, Electronic content version 20. [updated Dec 2024; cited Oct 2025].
9. Felman A. What to know about hemorrhoids. MedicalNewsToday. [updated July 4 2025; cited Oct 2 2025]. Available from: https://www.medicalnewstoday.com/articles/73938.

Probiotics and prebiotics

Wilna Rabbets
Amayeza Info Services
Corresponding author, email: wilna@amayeza-info.co.za

Republished from: *S Afr Pharm J* 2025;92(5):28-31

Abstract

Probiotics and prebiotics are central to supporting a healthy gut microbiome. Probiotics are live microorganisms that confer health benefits when consumed in adequate amounts, while prebiotics are non-digestible fibres that serve as nourishment for beneficial gut bacteria. Together, they can influence digestion, immunity, metabolism, and even mental health. However, the clinical effectiveness of probiotics depends not only on strain and dose, but also on survival during storage and passage through the upper gastrointestinal tract. Evidence shows that many products fail to deliver the promised viable organisms to the intestine, with substantial loss occurring before purchase and upon exposure to the harsh conditions in the stomach. This article reviews the roles and sources of probiotics and prebiotics, their complementary functions, the impact of antibiotics on gut flora, and the critical importance of delivery mechanisms in ensuring probiotic efficacy.

Introduction

The gut microbiome is now recognised as a dynamic ecosystem influencing digestion, nutrient absorption, immunity, and metabolic health. Emerging research also links gut bacteria to mood and cognition through the gut–brain axis.[1] Maintaining this balance is particularly important in contexts where antibiotics are widely used and where both infectious and chronic diseases are prevalent.[2,3]

Two tools frequently discussed in this regard are **probiotics** and **prebiotics**. Though often paired, they differ fundamentally: probiotics are live microorganisms providing direct health benefits, while prebiotics are fibres that selectively stimulate the growth of these beneficial microbes. Used together, they can restore and maintain microbial balance in the gut, particularly after disruptive events such as antibiotic therapy.[4]

Probiotics: definition, uses, and sources

Probiotics are defined as "live microorganisms which, when administered in adequate amounts, confer a health benefit on the host".[4] Commonly used Genus include *Lactobacillus*, *Bifidobacterium*, and *Saccharomyces boulardii*.[3]

Clinical evidence supports several applications of probiotics:

- **Antibiotic-associated diarrhoea (AAD):** Certain species, particularly *Lactobacillus rhamnosus* GG and *S. boulardii*, significantly reduce the incidence of diarrhoea linked to antibiotics.[5]
- **Clostridioides difficile infection:** Probiotics can lower recurrence rates when used alongside standard therapy.[5]
- **Irritable bowel syndrome (IBS):** Selected strains help reduce bloating, abdominal pain, and irregular stool patterns.[1]
  - *Lactobacilus Acidophilus NCFM* reduces gut/abdominal pain and overall IBS Symptoms (bloating, irregular stool patterns)[6,7]
  - *Lactobacillus Paracasei LPC-37* reduces stress triggers and improves gut-brain axis [8]
  - *Bifidobacterium Lactis HN019* reduces symptoms of constipation and improve WGTT (whole gut transit time)[9,10]
- **Immune support:** By stabilising gut microbial diversity, probiotics contribute to immune resilience.[3]
- **Gut–brain axis:** Emerging data suggest some probiotics may improve mood and reduce anxiety symptoms.[1]

Dietary sources include yoghurt, fermented milk (such as maas), kefir, sauerkraut, kimchi, miso, and tempeh. Supplements in capsule, powder, or sachet form are widely available but vary in quality and viability.

Prebiotics: definition, uses, and sources

Prebiotics are non-digestible food components, often fibres such as inulin, fructo-oligosaccharides (FOS), and galacto-oligosaccharides (GOS), that selectively stimulate the growth of beneficial gut bacteria.[3]

Product/Brand Name	Probiotic Strain	Prebiotic Component	CFU per dose	Recommended Dosage	Safety Notes
Probitec					
Probitec	Lactobacillus acidophilus La14	FOS 10 mg (inner) + FOS 55 mg (outer)	15 billion CFU per capsule	1 capsule daily; or as advised by HCP	Avoid if allergic or sensitive or if immunocompromised; Consult if pregnant/nursing or on medication. Not suitable for children <6 years of age.
Probitec Intrinsic Bowel Support	L. acidophilus NCFM; L. rhamnosus GG (ATCC 53103); L. plantarum Lp115; L. paracasei Lpc37; B. lactis Bl04; B. lactis HN019; B. lactis Bi07; S. thermophilus St21	None	20 billion CFU total per capsule	1 capsule daily; or as directed by HCP	
Probitec Fibre+	None (prebiotic formula)	Fibersol2 5 g; Lglutamine 3 g; enzymes (amylase, protease, invertase, diastase, lipase, cellulase, lactase)	N/A (no CFU)	Dissolve 1–2 sachets daily in noncarbonated liquid/soft food	

FOS: Fructooligosaccharides

Their clinical benefits include:

- Supporting probiotic colonisation and persistence.[3]
- Improving stool bulk and regularity.[3]
- Enhancing absorption of minerals like calcium and magnesium.
- Reducing cholesterol levels and potentially lowering colorectal cancer risk.[1,4]

Prebiotics occur naturally in onions, garlic, leeks, bananas, apples, asparagus, oats, legumes, and chicory root. Increasing dietary intake gradually is advised, as sudden increases may cause bloating or gas. Synbiotic products combine probiotics and prebiotics, aiming to improve both survival and effectiveness of the probiotic.[4]

Complementary roles

Although distinct in nature, probiotics and prebiotics act synergistically. Probiotics replenish beneficial bacteria in the gut, while prebiotics provide the nutrients these organisms need to thrive. When combined, synbiotics may enhance colonisation and long-term stability of the gut microbiome.[2,4]

Antibiotics and the microbiome

Antibiotics remain essential in treating bacterial infections but also cause collateral damage to the gut microbiome. They can eliminate beneficial bacteria along with pathogens, leading to diarrhoea, discomfort, reduced immune resilience, and increased susceptibility to opportunistic infections such as *C. difficile*.[4]

Probiotics are most effective when taken during antibiotic therapy (at least two to three hours apart from the antibiotic dose if not protected by technologies such as the DuoCap capsule) and continued for one to two weeks afterwards to restore microbial balance.[4] Prebiotics support this recovery by providing a favourable growth environment for beneficial organisms.

Probiotic survival: why delivery matters

While evidence supports the clinical potential of probiotics, their effectiveness hinges on a crucial factor: whether enough live organisms reach the intestine intact. Two major failure points undermine this goal:

Pre-purchase viability loss

Probiotic organisms are sensitive to environmental stressors such as heat, oxygen, moisture, and light. Many strains are anaerobic or microaerophilic and therefore particularly prone to oxidative damage. Liquids tend to be the least stable formulation, while glass packaging provides better protection against oxygen and light than oxygen-permeable plastics. Field studies estimate that poor storage can lead to up to a 50% loss of viable organisms before purchase.[11,12]

In-body loss during digestion

Once ingested, probiotics must survive gastric acid (pH 1–2.5) and exposure to bile and pancreatic enzymes. Studies show that only around 10–25% of unprotected probiotics survive stomach transit, with further attrition occurring in the small intestine.

Label discrepancies and dosing issues

A further concern is the accuracy of product labelling. Audits have reported that some commercial probiotics contain up to 50% fewer viable organisms than stated on the label, with as many as 11% of products showing no viable microorganisms at all. Clinical efficacy is dose-dependent, with approximately 10^{10} colony forming units (CFU) per day commonly cited as the adult target for positive outcomes (condition-specific). Without reliable labelling and delivery systems, patients may not achieve therapeutic benefit.[11,12,13]

Delivery technologies and solutions

Given these challenges, effective probiotic delivery requires systems that:

1. Maintain viability during manufacturing and storage.
2. Protect organisms from gastric acid and digestive enzymes.
3. Enable targeted release in the intestine.

PROBITEC™ DELIVERS BILLIONS MORE BACTERIA THAN OTHERS

93%
DOSE DELIVERED

0,0003%
DOSE DELIVERED

After direct exposure to a stomach acid simulation for 30minutes, Probitec™ retained 93% of it's dose whilst it's closest competitor retained 0,0003%

IN THE WORLD'S MOST ADVANCED PROBIOTIC CAPSULE

A POTENT DOSE OF PREBIOTICS + PROBIOTICS

SIGNIFICANT RELIEF FOR ALL IBS SYMPTOMS

ENHANCING THE COMPOSITION AND INTEGRITY OF THE WHOLE GUT SYSTEM

ERADICATE UTI'S AND PREVENT RECURRANCE

AND IS THE ONLY

PHARMACEUTICAL GRADE PROBIOTIC

FULL BACTERIA PROTECTION: 2-YEARS SHELF STABILITY AND STOMACH ACID PROTECTION
CORRECT DOSE LEVELS WITH TARGETED DELIVERY TO THE INTESTINE
STRAIN SPECIFICITY, WITH CLINICAL TRIAL EVIDENCE

Approaches to achieve this include microencapsulation, pH-sensitive coatings, and controlled-release technologies.[14,15,16]

Controlled-release systems

Technologies such as DuoCap™ have been designed to protect probiotics from gastric destruction and ensure targeted release in the intestine. By addressing pre-purchase die-off, gastric attrition, and label–content inconsistencies, such delivery mechanisms significantly improve the likelihood that an effective dose reaches the gut.[15-17]

Clinical relevance

The health effects of probiotics are both strain-specific and dose-dependent, but these benefits can only be realised if sufficient viable organisms reach the intestine. Delivery mechanisms therefore play a decisive role. Without protection, even clinically proven strains may fail to exert their intended effects due to poor survival during storage or gastric passage.[12,13]

Protected delivery systems that ensure accurate CFU counts at the end of shelf-life, and targeted release in the intestine, maximise the chance of achieving consistent, evidence-based outcomes. In practice, this means that product choice should be guided not only by strain and indication, but also by whether the formulation safeguards viability until the point of action.[11,16,19]

Conclusion

Probiotics and prebiotics together offer powerful tools to maintain gut health, particularly during and after antibiotic therapy. Probiotics replenish beneficial microorganisms, while prebiotics create the conditions for their survival and activity. However, evidence highlights that viability loss before purchase, destruction in the stomach, and inaccurate labelling often compromise clinical effectiveness.

Advances in delivery technology—such as targeted, controlled-release capsules—address these shortcomings by protecting probiotics from environmental and gastric stresses and ensuring release at the intended site of action. For those recommending or selecting probiotic products, considering not only strain and dose but also formulation and delivery system is crucial. By combining dietary strategies with evidence-based, protected formulations, individuals can achieve the full potential of probiotics and prebiotics for digestive, immune, and overall health.

References

1. Ford AC, Harris LA, Lacy BE, Quigley EMM, Moayyedi P. Systematic review with meta-analysis: efficacy of prebiotics, probiotics, symbiotics and antibiotics in irritable bowel syndrome. Aliment Pharmacol Ther. 2018;48(10):1044-60. https://doi.org/10.1111/apt.15001.
2. Ouwehand AC, DongLian C, Weijian X. Probiotics, prebiotics and the gut microbiome in South Africa: relevance for health. SAMJ. 2020;110(9):859-64.
3. Smolinska S, Popescu F-D, Zemelka-Wiacek M. A review of the influence of prebiotics, probiotics, synbiotics, and postbiotics on the human gut microbiome and intestinal integrity. Journal of Clinical Medicine. 2025;14(11):3673. https://doi.org/10.3390/jcm14113673.
4. World Gastroenterology Organisation (WGO). Probiotics and Prebiotics: Global Guidelines. 2023.
5. Goldenberg JZ, Yap C, Lytvyn L, et al. Probiotics for the prevention of Clostridium difficile-associated diarrhea in adults and children. Cochrane Database Syst Rev. 2017;12:CD006095. https://doi.org/10.1002/14651858.CD006095.pub4.
6. Lyra A, Hillilä M, Huttunen T, et al. Irritable bowel syndrome symptom severity improves equally with probiotic and placebo. World J Gastroenterol. 2016;22(48):10631-10642. https://doi.org/10.3748/wjg.v22.i48.10631.
7. Ringel-Kulka T, Goldsmith JR, Carroll IM, et al. Lactobacillus acidophilus NCFM affects colonic mucosal opioid receptor expression in patients with functional abdominal pain - a randomised clinical study. Aliment Pharmacol Ther. 2014; 40(2):200-207. https://doi.org/10.1111/apt.12800.
8. Patterson E, Griffin SM, Ibarra A, Ellsiepen E, Hellhammer J. Lacticaseibacillus paracasei Lpc-37® improves psychological and physiological markers of stress and anxiety in healthy adults: a randomized, double-blind, placebo-controlled and parallel clinical trial (the Sisu study). Neurobiol Stress. 2020; 24(13): 100277. https://doi.org/10.1016/j.ynstr.2020.100277.
9. Ibarra A, Latreille-Barbier M, Donazzolo Y, Pelletier X, Ouwehand AC. Effects of 28-day Bifidobacterium animalis subsp. lactis HN019 supplementation on colonic transit time and gastrointestinal symptoms in adults with functional constipation: A double-blind, randomized, placebo-controlled, and dose-ranging trial. Gut Microbes. 2018; 9(3):236-251. https://doi.org/10.1080/19490976.2017.1412908.
10. Waller PA, Gopal PK, Leyer GJ, et al. Dose-response effect of Bifidobacterium lactis HN019 on whole gut transit time and functional gastrointestinal symptoms in adults. Scand J Gastroenterol. 2011; 46(9):1057-1064. https://doi.org/10.3109/00365521.2011.584895.
11. Fenster K, Freeburg B, Hollard C, et al. The production and delivery of probiotics: A review of a practical approach. Microorganisms. 2019;7(3):83. https://doi.org/10.3390/microorganisms7030083.
12. Yoha KS, Nida S, Dutta S, Moses JA, Anandharamakrishnan C. Targeted delivery of probiotics: Perspectives on research and commercialization. Food Hydrocolloids. 2022;124:107207.
13. Torp AM, Holm L, Al-Soud WA, et al. Optimizing oral delivery of next-generation probiotics. Microorganisms. 2022;10(3):546.
14. Yao M, Xie J, Du H, et al. Progress in microencapsulation of probiotics: A review. Comprehensive Reviews in Food Science and Food Safety. 2020;19(2):857-74. https://doi.org/10.1111/1541-4337.12532.
15. Rajam R, Anandharamakrishnan C. Encapsulation of probiotics: Past, present, and future. Bioscience Biotechnology Research Communications. 2022;15(3):495-509.
16. Cunningham M, Azcarate-Peril MA, Barnard A, et al. Applying probiotics and prebiotics in new delivery formats - is the clinical evidence transferable? Nutrients. 2021;13(2):414.
17. Agriopoulou S, Stamatelopoulou E, Sachadyn-Król M, Varzakas T. Application of encapsulation strategies for probiotics in functional foods: Challenges and future perspectives. Foods. 2023;12(7):1431.
18. Proposed PIL Probitec caps (annotated). 2025.
19. Haji DA, Mortazavian AM, Tabatabaei-Yazdi F, Sohrabvandi S. Application of Pickering emulsions in probiotic encapsulation. Food Research International. 2022;156:111312.

How to fight a **gout flare**

Lynda Steyn
Amayeza Info Services
Corresponding author, email: lynda@amayeza-info.co.za

Abstract

Gout is a painful form of inflammatory arthritis often triggered by elevated uric acid levels in the blood. A gout flare is characterised by the sudden onset of intense joint pain, swelling, and redness, most commonly affecting the big toe. Prompt management of an acute flare is essential to reduce pain and inflammation. In the pharmacy setting, over-the-counter treatment typically includes nonsteroidal anti-inflammatory drugs (NSAIDs) and/or low-dose colchicine, with therapy tailored to the individual's comorbidities and medication profile. Patients should be counselled on the correct use of their gout medications and advised on lifestyle changes to prevent future flares.

Introduction

Purine is an organic substance found naturally in the body and is a fundamental building block of DNA and RNA. Purines are also found in certain foods, such as organ meats, red meat and alcohol, especially beer. The human body breaks down purines to form uric acid, which is then excreted via the kidneys.[1] An increased production of uric acid, or a decreased excretion of uric acid from the kidneys, can result in high uric acid levels in the blood (hyperuricaemia), leading to a deposition of urate crystals in the joints and causing a painful form of arthritis known as gout.[1]

What is a gout flare?

A gout flare is a highly painful (sometimes disabling) inflammation occurring most often in a single joint, and in some cases, in more than one joint.[2] The big toe is most often involved. However, any joint may be affected. Gout flares generally have a rapid onset and can occur at any time of the day, but many patients seem to experience gout flares at night or in the early hours of the morning. The intense pain is likely to be most severe within the first 4 to 12 hours after onset, then gradually tapers off and resolves spontaneously within a few days or weeks.[2,3,4]

What are the risk factors for gout?

Certain risk factors can predispose a patient towards developing gout.

These factors include:[5]

- Men over 30 years and women over 50 years of age
- Patients with chronic kidney problems (renal dysfunction)
- Obesity
- Diet
  - Excessive intake of high-fructose corn syrup
  - Excessive alcohol intake, especially beer and whiskey
  - A diet rich in purines (red meat, organ meats, seafood, game meats)
- Certain medications, e.g. certain diuretics, niacin, cyclosporine, tacrolimus
- Comorbid conditions, e.g. diabetes, high blood pressure, smoking

How is a gout flare managed in the pharmacy?

Management of gout involves:[6,7]

- Treating the acute gout flare promptly
- Preventing further attacks by reducing uric acid levels
- Lifestyle and dietary modifications

In the pharmacy setting, management of gout involves managing the acute flare. Treatment of a gout flare needs to begin as soon as possible after the onset of symptoms, ideally within 24 hours, and treatment time should be limited to the duration of the flare.[5]

A gout flare is typically treated with a nonsteroidal anti-inflammatory drug (NSAID) and/or colchicine as over-the-counter (OTC) therapy. A

Table I: Over-the-counter medications to treat acute gout flares[2,5,7,10]

Acute management of gout	
Medication	**Dose**
Colchicine tablets	**Adult Dose**
Colchicine tablets (0.5 mg or 1 mg) **Aspen Colchicine®** (0.5 mg) Or **Colchicine Houde®** (1 mg)	Preferred low-dose regimen (ideally within 12 hours of onset of flare): • 1 mg (2 X 0.5 mg tablets or 1 X 1 mg tablet) to be taken immediately. • 0.5 mg (1 X 0.5 mg tablet or half a 1 mg tablet) to be taken 1 hour later. • Maximum of 1,5 mg on day 1. • 12 hours later, if not yet resolved, 0.5 mg may be taken once or twice daily until symptoms resolve. • A gap of 7–14 days is recommended between each course of colchicine to prevent a build-up of the medication in the blood.
NSAID	**Adult Dose**
Diclofenac 50 mg tablets (e.g. Panamor AT-50®, K-Fenak®) Diclofenac 50 mg dispersible tablets (e.g. Catafast D®, Diclo-flam Blackcurrant®)	50 mg (1 tablet) 3 times daily after a meal Maximum of 150 mg daily for 3 days Dissolve 1 tablet in water 3 times daily before meals Maximum of 150 mg daily for 3 days

combination of an NSAID and colchicine may be considered for a patient with severe pain.[5]

Choice of therapy needs to be individualised, considering the patient's age, current medications, and the simultaneous presence of other diseases the patient may have (comorbidities).[5]

Patients taking chronic medication to lower their uric acid levels (e.g. allopurinol) should be encouraged to continue taking their medications while the gout flare is being treated.[2]

NSAIDs

NSAIDs act by reducing the inflammation, and initiation of treatment should be done as soon as possible, typically within 48 hours, with a full dose of a non-selective NSAID such as indomethacin or ibuprofen. All NSAIDs have equal efficacy, and the choice depends on individual factors, such as patient comorbidities and other medications. Treatment continues until the acute attack resolves. Patients should be counselled not to take more than one NSAID at a time.

A NSAID is recommended to treat a gout flare in patients who:[2]

- Are under the age of 65 years
- Do not have chronic kidney disease or cardiovascular disease
- Are not taking anticoagulants (blood thinners)
- Have no history of peptic ulcer disease (PUD)
- Do not have uncontrolled high blood pressure

Aspirin should *not* be used to treat a gout flare, as there is a risk of it increasing uric acid levels in the blood and worsening the symptoms.[6]

In patients where NSAIDs are contra-indicated, colchicine may be considered as an alternative.[2]

Colchicine

Colchicine has a novel mechanism of action. Overall, it prevents certain white blood cells moving to the area of inflammation, thereby preventing further inflammation. It is *not*, however, an anti-inflammatory.[8]

A low-dose colchicine regimen is preferred, and has been shown to be as effective, with fewer side-effects, as compared to a high-dose regimen.[8]

The most common adverse effects of colchicine (where the patient should be advised to stop the medication) include, nausea, vomiting, and abdominal pain.[8] Serious, life-threatening or fatal adverse events affecting the blood, muscles, liver (liver failure), nervous system and skin have been reported.[2,8]

Overdose of colchicine may be fatal. It is important to counsel the patient regarding the symptoms of colchicine toxicity. Early symptoms of toxicity include diarrhoea, vomiting and abdominal pain.[8]

Colchicine does not interact with anticoagulants, nor does it increase the risk of ulcers. It can, however, have a serious interaction with certain medications, (e.g. clarithromycin, itraconazole, digoxin), causing an increase in colchicine concentration and leading to possible toxicity.[9] This medication should not be taken by patients with moderate to severe renal or hepatic disease, or in patients with cardiac disease. All patients receiving colchicine should be advised not to drink grapefruit juice, as there is a potential for grapefruit juice to increase the concentration of colchicine to toxic levels.[2,8,9] It is therefore important to check what other medications the patient is taking before recommending colchicine.

Lifestyle modifications

Educating the patient on avoiding risk factors for gout and appropriate lifestyle changes should go hand in hand with counselling on medication dose and administration.

Counselling on the management of lifestyle factors should include encouraging the patient to:[6,7]

- Limit alcohol intake
- Limit sugary drinks, such as those sweetened with sugar or high-fructose corn syrup
- Limit the intake of foods high in purines
- Exercise regularly and maintain a healthy weight

Conclusion

Gout is often associated with other comorbidities, such as high blood pressure (hypertension), diabetes, kidney disease, obesity, and heart failure.[11] Certain medications (e.g. some diuretics) used to treat chronic conditions may also increase the risk of developing

gout.[8] Caution should be exercised in elderly patients, as many have comorbidities, or are taking medications which can affect the choice of treatment for gout.[11] Treatment of a gout flare should be short-term only (maximum of three days).[10] Refer patients on chronic medications or with a chronic illness to the pharmacist or doctor. Any patient suffering from regular gout flares should be referred to their doctor.[8]

References

1. MedlinePlus [Internet]. Bethesda (MD): National Library of Medicine (US); Uric acid-blood [updated 30 April 2023, cited 7 July 2025.]. Available from: https://medlineplus.gov/ency/article/003476.htm#:~:text=Purines%20are%20normally%20produced%20in,it%20passes%20out%20in%20urine.
2. Gaffo A. Gout: Treatment of flares. In:UpToDate. [updated 1 May 2025].
3. Gout Overview. In: Mayo Clinic. [updated 16 Nov 2022; cited 7 July 2025]. Available from: https://www.mayoclinic.org/diseases-conditions/gout/symptoms-causes/syc-20372897.
4. Pillinger MH, Mandell BF. Therapeutic approaches in the treatment of gout. Semin Arthritis Rheum. 2020;50(3S):S24-S30. https://doi.org/10.1016/j.semarthrit.2020.04.010.
5. Haines A, Bolt J, Dumont Z, Semchuk W. Pharmacists' assessment and management of acute and chronic gout. Can Pharm J (Ott). 2018;151(2):107-13. https://doi.org/10.1177/1715163518754916.
6. Rothschild B. Gout and Pseudogout. Medscape. [updated 18 Jun 2025 cited July 2025]. Available from: https://emedicine.medscape.com/article/329958-overview.
7. Medicines for gout. Healthdirect. [updated Feb 2023; cited Jun 2024]. Available from: https://www.healthdirect.gov.au/medicines-for-gout.
8. A Patient's Guide to Gout. Global Healthy Living Foundation, Inc. ©2021. Available from: https://creakyjoints.org/wp-content/uploads/2021/12/Patient-Guide-to-Gout_2ndEd_120921.pdf.
9. Sadiq NM, Robinson KJ, Terrell JM. Colchicine. [Updated 2025 Jan 19]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK431102/.
10. Division of Clinical Pharmacology. Faculty of Health Sciences (2024) South African Medicines Formulary (SAMF). SAMF website: https://samf-app.com.
11. Asghari KM, Zahmatyar M, Seyedi F, et al. Gout: global epidemiology, risk factors, comorbidities and complications: a narrative review. BMC Musculoskelet Disord. 2024;25:1047. https://doi.org/10.1186/s12891-024-08180-9.

The mouth–body connection: Why diabetes and oral health go hand in hand

Every November, National Diabetes Month invites South Africans to take a closer look at one of the country's most urgent health concerns, and one that's still growing rapidly. But beyond blood sugar and diet, there's another piece of the puzzle that often goes unnoticed: the link between oral health and diabetes.

"If you or someone you love is living with diabetes, you're likely aware that it can affect the eyes, nerves and heart," explains Dirna Grobbelaar, Oral Hygiene Advisor for Ivohealth. "What's less widely known is that it also has a profound impact on the mouth, and that poor oral health can, in turn, make diabetes harder to control. This two-way relationship highlights how deeply the health of our mouth and body are connected."

Diabetes in focus

Diabetes is a long-term condition that affects how the body regulates glucose, the main source of energy for our cells. There are two primary forms: type 1, which usually develops earlier in life, and type 2, which is far more common and often linked to lifestyle factors.

Globally, the number of people living with diabetes continues to surge. Here in South Africa, around 12.9% of adults are estimated to have the condition, and many don't yet know it. According to the International Diabetes Federation, diabetes has become the leading cause of death among women and the second among men in South Africa.

When the gums suffer, so does the body

Gum disease (or periodontal disease) is among the most common health problems worldwide, affecting roughly nine out of ten people at some stage in life. It begins quietly, when sticky plaque, a biofilm full of bacteria, builds up on the teeth and gumline. The gums become irritated, inflamed and may bleed during brushing or flossing.

"The early stage, known as gingivitis, is reversible with consistent care," says Grobbelaar. "Left untreated, though, it can develop into periodontitis, a more advanced form that damages the tissues and bone supporting the teeth. This not only threatens your smile but also stirs up inflammation that can ripple throughout the body."

How inflammation links the mouth and metabolism

Inflammation is the body's built-in defence mechanism, but when it turns chronic, it becomes harmful instead of helpful. Gum disease

drives ongoing inflammation in the mouth, and that inflammatory load can spread through the bloodstream, contributing to wider systemic inflammation.

For people with diabetes, this creates a dangerous cycle. Chronic inflammation reduces the body's sensitivity to insulin, making blood sugar harder to manage. High blood sugar, in turn, fuels even more inflammation in the gums. Breaking this cycle is key, and it starts with daily oral care and balanced blood sugar control.

Oral health warning signs

People with diabetes are more likely to face specific oral issues, including:

- Dry mouth (xerostomia)
- Tooth decay (cavities)
- Bleeding gums and gum disease
- Persistent bad breath

When blood sugar levels rise, extra glucose in the saliva gives bacteria more fuel to multiply. Around 40% of people with diabetes also experience dry mouth, which reduces saliva's natural cleansing and protective action. Because saliva helps neutralise acids and wash away debris, a lack of it can accelerate decay and infection.

"On top of that," adds Grobbelaar, "slower healing and lower resistance to infection can make gum problems tougher to overcome. And since gum disease can worsen blood sugar control, it becomes a self-perpetuating problem, unless you take steps to interrupt it."

Your dentist: a vital part of your diabetes care team

Managing diabetes isn't only about medical check-ups, your dentist and oral hygienist are crucial allies in keeping your health in balance. Once diagnosed, schedule a dental visit as soon as possible and share your full medical history, including any medications you are on. Regular professional cleanings (at least twice a year) allow your dental team to remove tartar and detect early warning signs that may not be visible at home.

If your blood sugar levels are unstable, your dentist may recommend postponing certain treatments, like gum or implant surgery, until they're under better control. Good communication between your dentist and doctor can make a real difference in both your oral and overall health.

Daily routine for a healthier mouth

A strong oral care routine supports not just a healthy smile, but a healthier body too.

1. Brush

- Brush twice a day for two full minutes, reaching along and under the gumline with the GUM Technique PRO - its tapered bristles and ergonomic quad grip helps guide a healthier brushing technique.
- Use a soft-bristled or sonic toothbrush like *Oclean X Ultra* for gentle, effective cleaning.
- Choose a mild or natural toothpaste, such as *Olgani Naturals*, to protect sensitive gums.

2. Clean Between Teeth

- Floss or use interdental brushes daily to remove plaque from areas your brush can't reach.
- If traditional flossing is difficult, try *GUM Soft-Picks*.
- Ask your oral hygienist which interdentals are best for your needs.

3. Rinse

- Rinse after meals and before bed with an alcohol-free mouthwash such as *GUM*, *Dentyl Active*, *Thryve* or *Olgani*.
- Avoid alcohol-based rinses, which can worsen dry mouth.

"Diabetes and gum disease feed off each other through inflammation and infection. But the cycle can be broken with the right care, balancing blood sugar, maintaining meticulous oral hygiene, and working closely with your healthcare team," concludes Grobbelaar.

Learn more

Visit **ivohealth.co.za/diabetes-oral-health** for expert advice, product recommendations and practical guides.

About Ivohealth

Website - https://ivohealth.co.za/

Facebook - @ivohealth - https://www.facebook.com/ivohealth

Instagram - @ivohealth - https://www.instagram.com/ivohealth

TikTok - @ivohealth - https://www.tiktok.com/@ivohealth

YouTube - @IVOhealth - https://www.youtube.com/user/IVOhealth

Issued by Paula Wilson Media Consulting on behalf of Ivohealth.

For media queries please contact Mercia Swart – mercia@pwmc.co.za / +27 (0)72 233 0674.

Boost your immunity & shield your body naturally

- *Immune System Support*
- *Cold & Flu (Anti-Viral) Support*
- *Anti-inflammatory Support*

SILVERLAB
DAILY HEALTHCARE

Taken daily, Silverlab Immune Booster can strengthen the immune system and help fight infections.
In *ionic*+ form, Silverlab's Immune Booster is proven to be more effective, yet is a natural trace mineral and has a favourable safety profile.

More info