# **INNER** HEALTH



Always read the label and follow the directions for use.

## **IMMUNE HEALTH**



## **HAYFEVER RELIEF**

- ✓ Reduces the frequency & severity of mild allergy symptoms
- ✓ Assists with mild environmental allergies
- ✓ Relieves hayfever symptoms
- ✓ Decreases symptoms of allergic rhinitis
- Relieves symptoms of mild allergies including itchy & watery eyes; puffy & sore eyes

Individuals with allergic rhinitis can experience symptoms such as blocked, itchy or runny nose along with sneezing & an itchy throat.

#### **EACH CAPSULE CONTAINS 10 BILLION LIVE PROBIOTICS:**

Lactobacillus paracasei (LP-33®)

10 Billion CFU

#### **PATIENT INSIGHT**

- Hay fever affects around 18% of the Australian population.<sup>1</sup>
- Hay fever symptoms can interfere with daily function, impacting sleep and concentration, in addition to contributing to upper respiratory infection risk<sup>1</sup>
- Over 50% of supplement users would consider a probiotic to support their immune health <sup>2</sup>

## **CLINICAL FOCUS**

- Relieves symptoms of mild allergies including itchy & watery eyes; puffy & sore eyes.
- · Relieves hay fever symptoms.

#### **KEY FORMULA FEATURES**

100% clinically trialled probiotic strain Lactobacillus paracasei (LP-33®).

#### **KEY ACTIONS**

- Support allergic rhinitis (AR) symptom relief/reduce symptom severity.<sup>3,4,5</sup>
- Downregulate an atopic immune response.<sup>3,4,5</sup>

#### **PROFESSIONAL PRESCRIBING GUIDELINES**

**Directions for use:** 

Adults & children over 12 years:

Take 1 capsule daily

Children 2 to 12 years (to reduce symptoms of allergic rhinitis):

Empty & mix contents of 1 capsule daily into water, juice or milk Or as directed by a healthcare professional.

Disclaimer: In the interest of supporting Healthcare Practitioners, all safety information provided at the time of publishing is in accordance with Natural Medicine Database (NATMED PRO), renowned for its professional monographs which include a thorough assessment of safety, warnings, and adverse effects.

For further information on specific interactions with medications, please contact Clinical Support on 1800 777 648, or via email, <a href="mailto:anz\_clinicalsupport@metagenics.com">anz\_clinicalsupport@metagenics.com</a>.

WARNINGS: If symptoms persist consult your healthcare professional.

In April 2020, the genus *Lactobacillus* was reclassified into 25 different genera. *L. paracasei*, which was previously classified under the *Lactobacillus* genus, was reclassified under the *Lacticaseibacillus* genus. However, some product labels may still identify this species as *Lactobacillus paracasei*.<sup>6</sup>

## **CONTRAINDICATIONS:**

**Immunodeficiency:** *L. paracasei* may cause pathogenic colonisation in patients who are severely immunocompromised.<sup>6</sup>

**Valvular heart disease:** Theoretically *L. paracasei* may cause pathogenic colonisation in patients with valvular heart disease. Use should be avoided prior to dental surgery or other invasive gastrointestinal procedures.<sup>6</sup>

## **PREGNANCY:**

Suitable when used orally and appropriately.6

#### **BREASTFEEDING:**

Suitable when used orally and appropriately.6

NO ADDED: Artificial colours, flavours or preservatives.

## **HCP COUNSELLING QUESTIONS**

## Q. Can I take Inner Health Hayfever Relief every day?

Yes, Inner Health Hayfever Relief is suitable to take every day.

## Q. Can I take Inner Health Hayfever Relief with hay fever medications?

Yes, Hayfever Relief is suitable to take with hay fever medications.<sup>4</sup>

## Q. Can I take Inner Health Hayfever Relief if I am a vegan?

Yes, Inner Health Hayfever Relief is formulated with plant-based ingredients and is suitable for use by vegans and vegetarians.

#### **CLINICAL FEATURES**

via the gut.3,4,5

Hay fever or allergic rhinitis (AR) affects around 18% of Australians.¹ AR is characterised by systemic excessive T-helper 2 (Th2) cell activity and a consequent inflammatory response.¹ The transition between types of T cells that can exacerbate allergy symptoms occurs within gut-associated lymphoid tissue (GALT). Addressing this mechanism, probiotics can favourably reduce Th2 over-activation within GALT to downregulate allergy frequency and severity.8 *Lactobacillus paracasei* (LP-33®) is a clinically trialled probiotic strain that can help restore immune control and moderate over-active immune responses

A later randomised controlled trial was conducted to assess the efficacy of LP-33® in patients with persistent allergic rhinitis to grass pollen-induced AR. Four hundred and twenty-five patients received either LP-33® or a placebo, plus an antihistamine for five weeks. The primary outcome was the improvement in Rhinitis Quality of Life (RQLQ) global score and the secondary outcomes included nasal and ocular symptoms. The RQLQ global score decreased significantly in the LP-33® group with significant differences in ocular symptoms also being reported (Figure 1).

## **Relieves hay fever symptoms**

The gut microbiome is essential for the development and ongoing modulation of immune responses, signalling toll-like receptors (TLRs) in the intestinal epithelium, as well as in the respiratory mucosa, and balancing between T helper 1 (Th1) and Th2 responses.<sup>9</sup>

Additionally, gut microbiota and specific probiotic strains can provide antiinflammatory support via the stimulation of the production of immunoglobulin A (IgA), and suppression of immunoglobulin E (IgE), and in this way can impact atopic conditions, such as hay fever.<sup>3,4,5,10,11</sup>

In a 2005 clinical trial, 90 children and teenagers with perennial AR triggered by dust mites, were given 10 billion CFU of LP-33®, or placebo, for 30 days. The probiotic group experienced significant improvements from baseline, including a 26% reduction in nasal symptoms, a 25.5% reduction in eye symptoms, and a 32% reduction in practical problems (p<0.05). By comparison, the placebo group noted a decrease of 4% in nasal symptoms, and 45% and 32% increases in frequency of eye symptoms and practical problems respectively.<sup>3</sup>

A different 2005 study by Wang and colleagues delivered similar results. The study participants were all over the age of five with perennial IgE-mediated allergy to dust mites. Patients who were given LP-33® in a fermented drink for 30 days had significantly improved quality of life scores (p=0.037) and a significant reduction in symptom frequency compared to the placebo group (p=0.022).<sup>5</sup>



Figure 1: Lactobacillus paracasei (LP-33®) Improves Symptoms of Allergic Rhinitis.

## **References**

- 1. Australasian Society of Clinical Immunology and Allergy. Allergic Rhinitis (Hay Fever) Fost Facts. Updated Jun 2023. Accessed Aug 8, 2024. https://allergy.org.au/images/pc/ff/ASCIA\_PC\_FAST\_FACTS\_Allergic\_Rhinitis\_2023.pdf
- 2. Thrive data. 2024.
- 3. Peng GC, Hsu CH. The efficacy and safety of heat-killed Lactobacillus paracasei for treatment of perennial allergic rhinitis induced by house-dust mite. Pediatr Allergy Immunol. 2005;16(5):433-8. doi: 10.1111/j.1399-3038.2005.00284.x
- 4. Costa DJ, Marteau P, Amouyal M, et al. Efficacy and safety of the probiotic Lactobacillus paracasei LP-33® in allergic rhinitis: a double-blind, randomized, placebo-controlled trial (GA2LEN Study). Eur J Clin Nutr. 2014;68(5):602-7. doi: 10.1038/ejcn.2014.13
- 5. Wang MF, Lin HC, Wang YY, Hsu CH. Treatment of perennial allergic rhinitis with lactic acid bacteria. Pediatr Allergy Immu. 2004;15(2):152-158. doi:10.1111/j.1399-3038.2004.00156.x
- 6. Lacticaseibacillus paracasei. Natural Medicines Database. Therapeutic Research Centre. Updated Feb 26, 2024. Accessed Aug 8 2024. https://ausdi.hcn.com.au/nmlnteractions.htm
- 7. Licona-Limón P, Kim LK, Palm NW, Flavell RA. TH2, allergy and group 2 innate lymphoid cells. Nat Immunol. 2013;14(6):536-42. doi: 10.1038/ni.2617
- 8. Brucklacher-Waldert V, Carr EJ, Linterman MA, Veldhoen M. Cellular plasticity of CD4+ T cells in the intestine. Front Immunol. 2014;5:(488):1-11. doi: 10.3389/fimmu.2014.00488
- 9. Prakash S, Rodes L, Coussa-Charley M, Tomaro-Duchesneau C. Gut microbiota: next frontier in understanding human health and development of biotherapeutics. Biologics. 2011; 5:71-86. doi: 10.2147/BTT.S19099
- 10. Liu P, Hu T, Kang C, et al. Research advances in the treatment of allergic rhinitis by probiotics. J Asthmo Allergy. 2022;15:1413-1428. doi:10.2147/JAA.S382978
- 11. Cuello-Garcia CA, Brożek JL, Flocchi A, et al. Probiotics for the prevention of allergy: a systematic review and meta-analysis of randomized controlled trials. J Allergy Clin Immunol. 2015;136(4):952-61. doi:10.1016/j.jaci.2015.04.031