



SPECIAL REPORT

Respiratory recovery

Australian's airways have been sorely tested with bushfires, viruses and wet weather mould over recent years. As many suffer the aftermath of these airway assaults, it's helpful to consider natural routes to recovery.

Words CAROLINE ROBERTSON

Breath is synonymous with life. You can potentially survive weeks without food, days without fluid but only a matter of minutes without air. In 2020–21 an estimated 30 per cent of Australians were suffering from chronic respiratory infections, according to the Australian Bureau of Statistics. Lung disease is also the second leading cause of death according to the Lung Foundation Australia. Conditions such as asthma, bronchitis, chronic obstructive pulmonary disease (COPD), long COVID and pneumonia can create a slew of symptoms for some. Their impact expands beyond respiratory issues such as cough, chest tightness, mucus, pain, shortness of breath and wheezing.

Respiratory conditions can impact everything including your appetite, circulation, cognition, energy, immunity, sleep and organ health. Dr Arthur C Guyton connects every condition to poor respiration: "All chronic pain, suffering, and diseases are caused by a lack of oxygen at the cell level." Complementary medicine takes a holistic approach to managing and overcoming respiratory challenges. An empowering program incorporates diet, exercise, herbs, supplements, therapies and environmental adjustments. With patient perseverance, issues can ease as equilibrium is re-established.

Air supply

What's invisible, omnipresent and imperative for life? The answer is air. Oxygen-rich air flows through your nose, mouth, larynx, trachea, bronchi and bronchioles to exchange essential gases in over six million alveoli sacs. Our inbuilt ventilator is facilitated by filtering cilia, warming mucous membranes, gas-exchanging lungs, expanding diaphragm

and our concertina ribcage. This complex system ensures we provide plentiful oxygen to revive starving cells and exhale excess carbon dioxide waste.

Air is essential for energy, growth, immunity and repair. Insufficient or poor-quality air is connected to allergies, breathing issues, coughing, depression, drowsiness, eye problems, headaches, inflammation and poor concentration. Polluted air is killing more people than smoking according to the Thomson Reuters Foundation which found air pollution, primarily from fossil fuels, kills 800 people hourly! Since air is our life force, it's a priority to ensure the purest breaths possible.

Healthy air checklist

- Avoid asbestos or radon, a rock or soil gas by-product of uranium decay.
- Banish bacteria, dander, dust, heavy metals, mildew, mould and viruses.
- Check for leaks or stagnant water.
- Clear chemicals including cleaning agents, carpets, furnishings, gardening supplies, paints and resins.
- Don't sit by directional fans without filtration.
- Ensure fuel-burning appliances have ventilation to outdoors.
- Lower humidity to ideally below 50 per cent.
- Maintain a smoke-free environment.
- Reduce pollution from vehicles in attached garage or nearby road to a minimum.
- Remove allergenic plants.

Breathe easy

Shallow or blocked breathing has an immediate impact on your mental and physical state. When you're relaxed, you have a slower, deeper respiration rate, which activates the calming parasympathetic nervous system. When you're stressed, more shallow and rapid respiration tends to escalate anxiety, acidity, inflammation and illness. Buddhist monk Thích Nhất Hạnh always emphasised the blessings of mindful breathing: "Breath is the bridge which connects life to consciousness, which unites your body to your thoughts."

Are you breathing easy? Try 10 tips for better breathing.

- 1** In the morning cleanse your nasal passages with a sea swim, saline sinus spray or yogic nasal irrigation (*jala neti*.)
- 2** Follow by smearing nostrils with a few drops of organic black sesame seed oil or Ayurvedic *anu thailam*. Like sinus security, this protects the mucous membranes against allergens.
- 3** Try inhaling aromatic steam weekly. One way to do this is to fill a bowl with two litres of boiling water, adding a few drops of essential oil such as eucalyptus, tea tree or clove. Cover head with a towel and inhale steam with deep breaths until steam dissipates.
- 4** Do breathing practices such as alternate nostril breathing, *bhastrika* breath, diaphragmatic breathing or *ujjayi* baby's breath.
- 5** Exercise outdoors in fresh air will help you to breathe better.
- 6** Identify and eliminate allergens or food intolerances. Dairy is notorious for increasing mucus.
- 7** If your nose blocks at night causing snoring or sleep apnoea, consider a nasal clip available from chemists.

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8 Apply Myotape to keep your mouth closed at night to reduce asthma symptoms, dry mouth, sleep apnoea and snoring. It can also improve dental health according to Myotape inventor Patrick McKeown, Buteyko teacher and author of *The Oxygen Advantage*.

9 Maintain proper posture to allow the diaphragm and ribcage to expand and contract freely.

10 Stretch regularly to release respiratory tension. Sing and swim to improve your breath mastery.

Ageing airways

Recently, much emphasis has been placed on protecting the vulnerable elderly from respiratory conditions. This is because the elderly are more susceptible to chronic and

complicated respiratory conditions. "People over 65 have an increased risk of developing a respiratory condition and a reduced risk of fully recovering from such an illness," says Liz Williams, nurse educator, yoga teacher and Ayurveda lifestyle consultant.

The elderly are more prone to respiratory conditions for several reasons. They produce less protective mucous and cilia in the respiratory tract, increasing the risk of infections and allergic reactions. As we age, air sacs or alveoli become distended, thus reducing the amount of gaseous exchange. Poor muscle tone makes it harder to fully exhale, leaving air in the lungs, thus reducing oxygen intake. Inhalation is also restricted by a hunchback kyphosis as stiff thoracic vertebrae inhibit the ribcage's expansion. A weakening diaphragm makes coughing to clear airways less effective. However, in many cases respiratory conditions can be successfully managed despite being over 65 years old.

A yogi's approach to COPD

According to WHO, "Chronic obstructive pulmonary disease (COPD) is the third leading cause of death worldwide, causing 3.23 million deaths in 2019." COPD is a blanket term for common respiratory conditions such as age-induced asthma, bronchitis, emphysema, lung cancer, pulmonary oedema and pneumonia. Symptoms may include shortness of breath, loss of exercise tolerance, increased sputum production, reduced ability to cough and inability to protect airways when consuming food or fluid. COPD is often exacerbated by passive or active smoking and environmental pollutants such as lead in house paints, petrol, formaldehyde in furnishings, plasticisers and wood-burning stoves. Conventional treatment of COPD may include bronchodilating medications, oxygen therapy, stopping smoking and surgery.

Yoga therapist Patricia Wigley was surprised when diagnosed with COPD. After a few flus and a chronic cough, tests revealed her damaged and widened airways were consistent with bronchiectasis. This can cause chest pain, mucus, breathlessness, fatigue, fever and wheezing. Non-smoker Wigley explains, "I've found the following very helpful to support my lungs. Antioxidant Ayurvedic

Love your lungs

- Avoid passively inhaling or smoking cigarettes, marijuana or vapes.
- Brush and floss twice daily. "Good oral hygiene can protect you from the germs in your mouth leading to infections," according to the American Lung Association.
- Clear lungs and increase respiratory capacity with deep diaphragmatic breathing.
- Cultivate clean air with natural ventilation, air purifier and cleaning with natural products. A guide to air cleaners by the University of Melbourne may be found at sgeas.unimelb.edu.au/engage/air-cleaner-guide.
- Use a dehumidifier in warm weather to reduce airborne allergens and ease asthma in some cases.
- Do regular aerobic exercise, to the level where you pant, for 40 to 60 minutes.
- Grow plenty of oxygen-producing plants such as ferns or peace lilies.
- Minimise air pollution.
- Schedule a regular respiratory check-up.
- Sidestep infections by washing hands, not touching face, air kissing rather than on lips and having optimal nutrition.

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herb tulasi, antispasmodic Adhatoda vasica, lung tonic elecampane and expectorant liquorice. I also add ginger to tea or dishes for my mucous membranes.”

Wigley feels a balanced lifestyle keeps her breathlessness and chest pain at bay. “Daily meditation, barefoot beach walks and time with my granddaughters keeps me calm and grounded.” She also has alkalising, low-mucus meals. “I eat mostly vegetables and fruit in my diet, very little dairy.” She partakes in a purification diet twice a year. “At the end of winter and summer, I like to do a 10-day seasonal mung bean soup cleanse.” Balancing the gut microbiota with probiotic foods or supplements may also support COPD through the gut-lung axis according to a study.

Yoga and pranayama practice has been pivotal to Wigley’s pulmonary stability. “There is one morning sequence of breathing which I recommend and practise to activate the heart, stimulate the lungs, open up the chest and move the ribcage. The long, deep breathing also calms the nervous system by switching it to parasympathetic ‘rest and digest’ mode. This takes about 10 or 15 minutes and is great at the beginning of the day prior to yoga.”

Before the breathing exercise, Wigley suggests setting an intention for the practice such as “My breath flows freely and easily” or “I am radiantly healthy and happy.” Repeat these exercises six times.

1 Sit with your hands in your lap, palms facing upwards. Inhaling, raise hands to cup eyes. Lengthen through the front of the spine, lifting the chin slightly to open up the front of the rib cage. Exhaling slowly, return hands to your lap.

2 Raise your arms out to the side at about shoulder height, palms facing forward, as if you are greeting a loved one. Open up the heart and the front of the chest. As you exhale cross the elbows over and place your hands on your shoulders.

3 Raise arms up above head and hold the opposite elbows. Exhale, maintaining the length through the spine. Inhale there and feel the expansion of the side ribcage. Exhale slowly to lower arms back down.

Patricia Wigley’s lung-loving yoga poses

- ✓ Cat pose to child pose.
- ✓ Child pose to extended cat pose raising right arm and left.
- ✓ Salute to the sun.

- ✓ Dynamic flowing version of Warrior 1 working through the joints, hips and knees especially.
- ✓ Standing twists.
- ✓ Supine stretches and folds followed by supine twists.
- ✓ Bridge pose taking arms up above head to the floor — dynamic with the breath.
- ✓ Half shoulder stand or supported shoulder stand, to help drain the lungs.
- ✓ Gentle flowing twists followed by *apanasana* as a counterpose.
- ✓ Cobra, *salabhasana*, strengthening the back and opening up the chest.
- ✓ Alternate nostril breathing, *nadi shodhana*, developing appropriate ratio of breath.
- ✓ Place palms over lungs, smile to them and see them as white wings buoyant with bliss.

Pucker up

According to the COPD Foundation, pursed-lips breathing slows down respiration rate, opens airways to free trapped air, improves gaseous exchange and enables one to exercise for longer periods.



Australia has one of the highest asthma rates in the world, with 10.7 per cent of Australians affected in 2020–21, according to the Australian Bureau of Statistics.

- Mantra meditation with extended exhalation to activate the sedating vagus nerve and clear excess carbon dioxide. A powerful lung mantra is *vaayu gayatri* — experience it at [youtube.com/watch?v=2JkaDVZ7d9w](https://www.youtube.com/watch?v=2JkaDVZ7d9w).
- Either *savasana* or *sukhasana* to rest.

Asthma

Australia has one of the highest asthma rates in the world, with 10.7 per cent of Australians affected in 2020–21, according to the Australian Bureau of Statistics. Asthma occurs when irritated or inflamed airways narrow or get blocked with mucus. This may lead to blue lips, breathlessness, chest tightness, difficulty talking, fatigue, use of accessory muscles to breathe, wheezing and a persistent cough. Common triggers include allergens such as pollen, certain medications, cold weather, exercise, respiratory infections, inhaled irritants, intense emotions, reflux and thunderstorms. Tragically my friend's son passed from an asthma attack induced by a laughing fit. There's an increased risk of asthma when one has allergies, a family history, obesity, smoking or exposure to triggers. The usual approach to asthma management is to monitor symptoms, take medication, avoid triggers and follow an asthma action plan.

The complementary approach to asthma is as follows:

- Identify and eliminate or reduce triggers such as allergens.
- Ensure pure air quality.
- Support immune and respiratory system with lifestyle, herbs and supplements.
- Manage emotions.
- Retrain respiration.
- Educate yourself about breathing methods such as the Butekyo Breathing Method, which trials suggest can reduce asthma symptoms, decrease need for inhaled corticosteroids and improve breathing.

Traditional herbs to ease inflammation, dilate airways and minimise mucus include the following.

- *Euphorbia hirta* — Also known as asthma plant, this herb has been used for centuries as an antispasmodic to ease breathing difficulties.

- *Hemidesmus indicus* — Ayurveda practitioners have applied Indian sarsaparilla roots in asthma for their anti-inflammatory properties.
- *Justicia adhatoda* — This Malabar nut is known as a bronchodilating agent and mild spasmolytic in Ayurvedic medicine.
- Liquorice — A sweet stick containing anti-inflammatory glycyrrhizin, which eased asthma in several studies.
- *Lobelia inflata* — Commonly called asthma weed, its active constituent is lobeline, which can stimulate respiration, support the cough reflex and boost vascular tone. It is to be used cautiously in patients with pre-existing heart disease.
- *Nigella sativa* — “Clinical studies of NS preparations showed an improvement of asthma symptoms control, lung function and asthma biomarkers.”
- *Thymus vulgaris* — This safe minty herb alleviated bronchial asthma in a 2021 study.

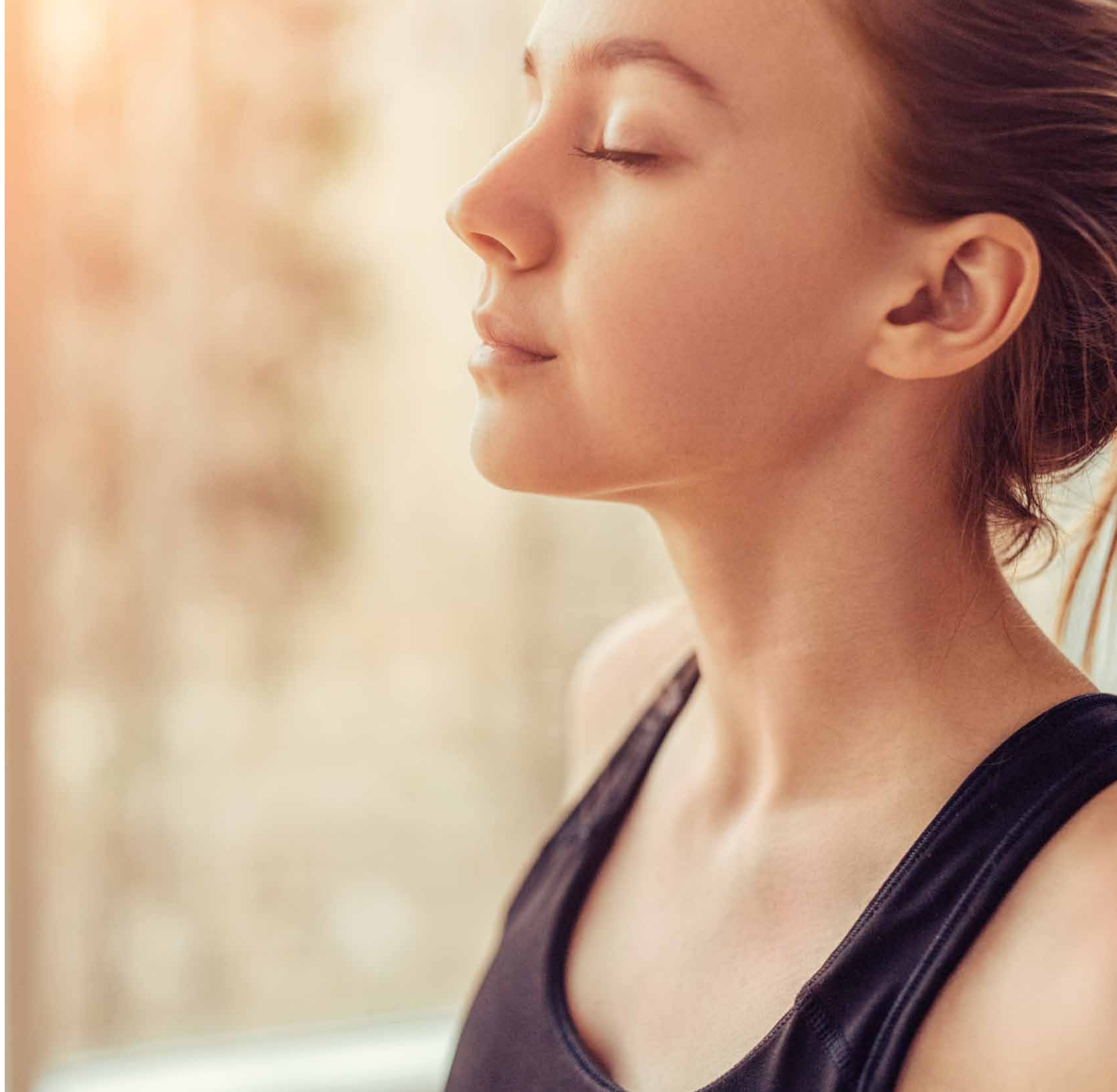
Bronchitis

One way to get your own seat on public transport today is to start coughing. Coughs can be incredibly irritating and debilitating when they drag on. Bronchitis is caused by a bacterial or viral infection which inflames bronchial tubes causing a cough, mucus, fatigue, breathlessness, fever, chills and potentially chest pain. If the cough persists for at least three months and reoccurs for a minimum of two consecutive years it's considered chronic bronchitis. Compromised immunity and exposure to lung irritants such as cigarette smoke raise the risk of bronchitis.

Traditional cough syrups once branded backward are now gaining scientific validity. Here are six superstars in the cough pharmacopoeia.

- *Althea officinalis* (marshmallow) — This demulcent herb soothes irritated mucous membranes and is the primary herb in herbalist Dr John Christopher's famous lung tonic.
- *Echinacea purpurea* — This pretty purple American Indian plant along with elderberry was found to “reduce the risk of complications and adverse events” after influenza infections in a clinical trial.
- *Hedera helix* — Studies show that ivy herbal extract can reduce the severity and duration of coughs in children and adults.

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[The herb marshmallow] soothes irritated mucous membranes and is the primary herb in herbalist Dr John Christopher's famous lung tonic.

- ✓ *Marrubium vulgare* (white horehound) — Horehound hard candy is an old bitter-sweet remedy for bronchitis. Modern phytotherapy rates it as an exceptional expectorant in coughs.
- ✓ *Pelargonium sidoides* — Several studies suggest this South African herb can reduce the duration of bronchitis and reduce COPD symptoms.
- ✓ *Verbascum thapsus* — This common herb is traditionally prescribed to ease asthma, pulmonary problems and spasmodic coughs.

Long COVID

"I get palpitations when standing up, feel breathless scaling stairs, am tired all the time and still can't taste things ... what was the question again?" My patient was suffering a COVID hangover much worse than her initial infection six months previously. According to the US Centers for Disease Control and Prevention

(CDC), as many as 20 per cent of people are "long haulers", struggling with a smorgasbord of serious issues attributed to long COVID. This relatively new phenomenon is an umbrella term for over 200 symptoms spanning 10 bodily systems according to an international study. Medicos are comparing long COVID to chronic fatigue syndrome or myalgic encephalomyelitis.

The commonest complaints are fatigue, post-exertional malaise and brain fog. Other problems reported are blurred vision, diarrhoea, menstrual cycle disturbances, skin rashes, shingles and tinnitus. Many are finding long COVID so debilitating they can't even exercise or work. Medical experts are connecting the condition to several possible mechanisms: viral loads causing chronic inflammation, an autoimmune response, reactivation of dormant viruses, microbiome dysbiosis and tissue damage from initial infection

which British researchers found is shrinking the brain. Considering the cacophony of long COVID concerns, it's vital to listen to an individual's experience and tailor the treatment accordingly. Adequate rest, a nutritious diet, minimal stress and fresh air are key to recovery. Infrared light therapy may also relieve inflammation. Hyperbaric oxygen therapy was shown to significantly reduce long COVID fatigue in a landmark evaluation.

Helpful herbs supporting long COVID conditions may include the following.

- ✓ Adaptogens Eleutherococcus, Rhodiola and Schisandra, found to increase physical performance in long COVID.
- ✓ Antifibrotics such as *Centella asiatica* and *Ginkgo biloba*, which may slow lung scarring.
- ✓ Anti-inflammatories Boswellia and turmeric to ease autoimmune-related inflammation.
- ✓ Antivirals star anise, fennel seed and masson pine needles.
- ✓ Immune-restoring Astragalus, Echinacea and reishi mushroom.
- ✓ Lymphatic cleansers to clear viral debris cleavers, fenugreek and pokeroor.
- ✓ Cognitive enhancers brahmi and red sage, found to ease pulmonary fibrosis.



Considering the cacophony of long COVID concerns, it's vital to listen to an individual's experience and tailor the treatment accordingly.

- ✓ Heart tonics *Crategus oxyacantha* and *Terminalia arjuna*.
- ✓ Lung tonics elecampane and mullein.

Supplements that may assist long COVID recovery are:

- ✓ NAC to lift brain fog.
- ✓ Omega 3 EPA/DHA as a powerful anti-inflammatory supporting cognitive function.
- ✓ Palmitoylethanolamide (PEA), an endocannabinoid-like lipid mediator with anti-inflammatory, analgesic, antimicrobial, immunomodulatory and neuroprotective effects. A 2022 study concluded "findings encourage the use of PEA as a potentially effective therapy in patients with long COVID."
- ✓ Quercetin to reduce inflammation by stabilising mast cells.
- ✓ Vitamins C, D3 and K2 for immune support.
- ✓ Ubiquinol as an antioxidant to counter cardiac symptoms and fatigue.

NOTE: Information in this report is not intended as a substitute for relevant advice from your qualified health professional. Before making any changes to your healthcare please consult your health professional. References available on request.

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A recent literature review of clinical trials found the following herbs may be useful in relieving post-COVID neurological, cardiovascular and respiratory symptoms: *Valeriana officinalis*, *Melissa officinalis*, *Passiflora incarnata*, *Piper methysticum*, *Humulus lupulus*, *Ballota nigra*, *Hypericum perforatum*, *Rhodiola rosea*, *Lavandula officinalis*, *Paullinia cupana*, *Ginkgo biloba*, *Murraya koenigii*, *Crataegus monogyna*, *C. oxyacantha*, *Hedera helix*, *Polygala senega*, *Pelargonium sidoides*, *Lichen islandicus* and *Plantago lanceolata*.

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