# **GEM EDUCATION**



# THE DAILY-USE ORAL CARE PRODUCTS

We spend our lives avoiding chemicals and harsh toxins, only to come home and unknowingly use products that contain these same ingredients. The daily-use oral care products in our homes are often made up of formulas that can lead to a world of health problems. We chose to take out these harmful ingredients and replace them with science-backed, functional ingredients (that actually work!) for both the mouth and for the body.

Meet Gem: elevated oral care with better-for-you formulas, backed by science. The results are in, and it's time to lead the change in safe yet effective personal care products. We are proudly female-founded and female-run, and we are here to introduce you to the future of oral care.



# MEET OUR FOUNDER

My name is Georgia and I'm thrilled to introduce you to the future of oral care!

After spending years immersed in the beauty industry, through modelling and an obsession with personal care, I took a particular interest in the wellness space, educating myself on microbiome health. I learned about the importance of gut health, microbiomes, natural ingredients, and the power of forming healthy habits.

The more I learned, the more I started questioning the daily-use products that contradict and compromise our health standards. This led to the development of Gem, a toxic-free, probiotic-rich oral care range.

Science backed, good-for-you products that actually work, should be available to everyone, and everyone deserves to feel nurtured in their daily rituals.

Georgia xx



# **OUR RANGE**



#### TRIPLE WHITENING HYDROXYAPATITE TOOTHPASTE

In this range, we use a combination of the naturally powerful Sodium Bicarbonate and Silica to help clean and whiten tooth enamel. Free of toxic ingredients, our Triple Whitening Hydroxyapatite Paste is probiotic-rich, non-toxic, Australian-made and the first toothpaste in Australia to contain an oral probiotic. Every ingredient was carefully selected and is underpinned by scientific research, like hydroxyapatite, a safe and proven remineralising agent and a hero for reducing tooth discoloration. Our Triple Whitening Hydroxyapatite Paste is the overachieving natural, whitening toothpaste that actually works!



# TRIPLE WHITENING FLUORIDE TOOTHPASTE

Fluoride is our friend in small doses, and we've added the perfect amount in this range to optimise oral health, not hinder it. Fluoride occurs naturally in soil, fresh water, salt water and also in tea. We use the mineral component, which is proven to help prevent dental cavities, repair tooth enamel and aid in tooth remineralisation by slowing enamel erosion.



#### **MOUTHWASH**

Our formula is free of alcohol and toxins found in regular mouthwash that nuke all bacteria, the good and the bad. Instead, we contain natural ingredients like neem and propolis that help good bacteria thrive and promote a healthy oral microbiome.



## **BREATH SPRAY**

Stay fresh with our natural breath spray; made with refreshing spearmint leaf oil and xylitol to neutralise bad breath effortlessly.



### WHITENING PEN

Invest in your smile with our low sensitivity Whitening Pen, made with a scientifically proven teeth whitening ingredient, Phthalimidoperoxy-caproic Acid (PAP), our small but mighty pen brightens teeth gently and effectively. Whiten your best asset, as the one and only oxygen lightens your tooth enamel and deals with the damage of your daily coffee habit.



# **ELECTRIC TOOTHBRUSH**

This high quality, sonic toothbrush gives you a deeper clean, leaving you feeling fresher for longer, improving your oral health and brightening your smile. With three cleaning modes, a built-in 30-second timer and 34,200 brush movements per minute, Gem's power plaque removal brush pulses fluid in between teeth and gum line for a cleaner finish. The soft-bristled toothbrush heads are suitable for sensitive teeth.

You've heard about the gut microbiome, but what about your oral microbiome? This bodily wonder is just as important, and the fascinating science around it is only just coming to light.

# So, let's start with the basics... where is it and what is it?

Specifically, the oral microbiome area encompasses the tongue, the hard palate, the teeth, the area around the tooth surfaces and the area above and below the gums. Known as the oral microbiome, this collection of bacteria (over 700 different species to be precise) is a cornerstone of good health – for your mouth and beyond.

# WHOLE MOUTH HEALTH

The oral microbiome has some pretty important jobs, like tooth remineralisation, carrying oxygen to the gums, removing waste from our mouth and protecting us from damaging external organisms.

Like the gut microbiome, the health of the oral microbiome is dependent on the balance of good and bad bacteria. And just like the gut, an imbalance will lead to inflammation, illness, and disease. These will often manifest in the form of tooth decay, gingivitis and oral thrush.

When the beneficial bacteria flourish, your teeth will feel clean, your gums will appear pink and they will be well oxygenated. If your oral microbiome is too thick, you might experience symptoms like bad breath, tooth decay and gum disease. Conversely, if your oral microbiome is too thin, you might suffer from things like ulcers and sensitive teeth.

Dentistry is just starting to acknowledge the importance of healthy mouth flora and that we need to actively take care of it, which means knowing what's in your oral care products.

## **BEYOND THE MOUTH**

While the key to a healthy mouth, oral microbiome is also fundamental to many other aspects of our health, and even impacts the progression of disease.

New research is just coming to light over the connection between the oral microbiome and diseases like Parkinson's Disease, Irritable Bowel Syndrome, cirrhosis of the liver and many more. The mouth is the passageway to the gut.

Over 45% of the bacteria found in the mouth are also found in the gut. So, it follows that a healthy oral microbiome is a precursor to a healthy gut microbiome. And as 70% of our immune system is located in the gut, we should take good care of our oral microbiome too.

# PROTECT YOUR ORAL MICROBIOME

Everything we put in our mouth can affect our oral microbiome, from the foods we choose, to the drinks we sip and the oral care products we use each day.  Finding products that enhance your oral microbiome is an essential part of maintaining a healthy mouth.	<b>Eat well</b> – go for a balanced diet, low in sugar and carbohydrates, choose alkalising foods and go to town on vegetables! The more antioxidants, the better.
	Minimise sugar and alcoholic drinks as they can deplete your tooth's enamel.
	Brush twice a day, and floss at least twice a week – make sure the products you choose are free of toxic chemicals, detergents and alcohol.
	See the dentist – regular mouth cleanings (every 6 months) can help you keep your oral microbiome in top shape
	Pick your mouthwash wisely – avoid one made with alcohol and it dries your mouth out and detonates all bacteria – the good and the bad.
	<b>Stay hydrated</b> – water is good for everything including your oral microbiome!
	<b>Tongue scraping</b> – a little scrape a day can keep bad bacteria away.
	Add an oral probiotic – we use Lactobacillus Salivarius in all our toothpastes. It's an oral probiotic that can boost the good bacteria in your



mouth.

You wouldn't swallow a spoonful of toxic ingredients, so why are thousands of people using them in their oral and body care products every day?

Many of these substances can, in fact, worm their way into the body, causing a range of health issues along the way. One ingredient, Triclosan, has been banned in antibacterial hand soaps but is still lurking in our toothpaste and many mainstream skin and body products. We chose to remove these harmful toxins and replace them with science-backed, functional ingredients that actually work.

#### 01 TITANIUM DIOXIDE

An inorganic chemical compound that is added as a colourant to make toothpaste white and added in deodorant to help eliminate bacteria.

Why it's harmful: Evidence suggests that some nanoparticles in titanium dioxide (ingested in toothpaste or inhaled via deodorant) may induce toxic effects in your brain, cause lung inflammation and cause nerve damage. Some may even be carcinogenic.

# 02 TRICLOSAN

This pesticide has been banned by the Food and Drug Administration in soap and body wash. However, it is still lurking in our toothpaste for its antibacterial properties and in our deodorant as a preserving agent.

Why it's harmful: Some animal studies have linked triclosan to unusual hormone activity. More research suggests triclosan could mess with your microbiome or the day-to-day operations of your genes. The FDA have recently banned Triclosan from being used in skin care products, in fact Triclosan is classes as a pesticide.

## 03 PARABENS

Chemicals used as preservatives to extend the shelf life of toothpaste and prevent the growth of fungi in deodorant.

Why it's harmful: Research suggests that some parabens may interfere with the way your body produces and regulates estrogen and other hormones and are suspected to be endocrine disruptors, which are thought to lead to cancer and developmental and reproductive issues potentially.

# **04 SLS**

This chemical compound is used as a surfactant detergent in various cosmetics and industrial cleaners, including shampoos, bath products, and deodorants, and is used as a foaming agent in toothpaste.

Why it's harmful: SLS irritates the mouth, eyes, skin and lungs. Specifically, SLS strips away the mouth lining when used in toothpaste, which can lead to canker sores and irritation. In deodorant, SLS may cause skin reactions such as irritant contact dermatitis, especially to sensitive skin.

# 05 PROPYLENE GLYCOL

A synthetic chemical compound used in antifreeze and paint. In toothpaste, it's used to smooth out the texture of the formulation; in deodorant, it's used as an emulsifier to create a smooth application feeling.

Why it's harmful: Highly toxic to humans,

# MEET THE NASTY NINE

this compound is known to irritate the skin, eyes, lungs and mucous membranes. If used or ingested daily, this chemical can cause damage to your central nervous system, heart and liver. Propylene glycol can be harmful at just 2%, yet mainstream deodorants generally have a high dose of 50% propylene glycol.

# 06 DEA

Diethanolamine is an ingredient commonly used in conventional deodorant, toothpaste and personal care products. Diethanolamine is a human carcinogen also known as 'DEA'. It's used to make your toothpaste foam and in deodorant to prevent the product from drying out, as well as pH control.

Why it's harmful: When DEA is absorbed into your skin and your mouth, these chemicals affect your liver and kidneys. They are known as carcinogens. DEA has been shown to cause eye and skin irritation and has even been linked to liver cancer in mice. It is also a hormone disruptor and known to cause organ system toxicity.

# 07 ARTIFICIAL COLORING

Artificial toothpaste colours are used to make commercial toothpaste and deodorant aesthetically pleasing.

Why its harmful: Artificial dyes may contain up to 10% impurities. These undesired ingredients could include lead, arsenic, mercury and carcinogens. Additionally, artificial colourings have been linked to behavioural problems in children. Some artificial colours and bleaches in deodorants can cause severe allergic reactions and are also known carcinogens.

### 08 ANIMAL INGREDIENTS

No animals were harmed throughout the making of Gem. We don't use any animal-derived ingredients or test on animals, ever.

Why it's harmful: We don't really need to answer this, do we?

## 09 BS

It's exhausting, boring, and a total waste of everyone's time. Instead of BS, we serve up the truth with no sugarcoating, no complexities, and no-nonsense. We tell it like it is and disclose everything we know in ways that leave no room for interpretation.

Why it's harmful: BS might just be the most toxic of the toxins going around. No, thank you!



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