

GEM EDUCATION

*Get to know your smile*



*Gem*

## MEET GEM

The average Australian spends 24 hours a year filling their mouth with the same toxins found in toilet cleaner and paint. We chose to take out these harmful ingredients and replace them with science backed, functional ingredients that actually work.

Meet Gem: scientifically proven and backed by dentists, our range is the high-performing oral care routine for those who want to add a little luxury to their everyday. We're probiotic-rich, 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 remineralizing agent.

We are female founded and female run and we are here to introduce you to the future of oral care.



## MEET OUR FOUNDER

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*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 modeling 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

Free of toxic ingredients, Gem is the overachieving natural, whitening toothpaste that actually works. We're 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 remineralizing agent. We also use a combination of the naturally powerful Sodium Bicarbonate and Silica to help clean and whiten tooth enamel. Choose from six delicious flavours, depending on your mood: apple, cinnamon, mint, coconut, rose & watermelon.



### TRIPLE WHITENING FLUORIDE TOOTHPASTE

Fluoride is our friend in small doses, and we've added the perfect amount in this range to optimise your oral health. Fluoride occurs naturally in soil, fresh water, salt water and also in tea, and it can increase good oral health through mineralisation and strength of teeth.

We use the mineral origin fluoride, 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, propolis and chlorophyll that help good bacteria thrive and promote a healthy oral microbiome.

*"We NEED 'good' bacteria to support the oral microbiome, which, when healthy, protects against cavities, gingivitis, and bad breath. A healthy oral microbiome also supports the remineralisation process. If you kill all the bacteria in your mouth (both good and bad), you eliminate a critical part of the equation in reversing tooth decay".*

– DR. MARK BUHRIENNE



### BREATH SPRAY

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

*"This breath spray is my saving grace!"*

– DANIELLE H, VERIFIED BUYER



### WHITENING PEN

Invest in your smile with our low sensitivity Whitening Pen, made with food grade hydrogen peroxide to whiten teeth gently and effectively. Our most popular product comes in two delicious flavours: coconut & mint.

*"The cloud nine experience of teeth whitening"*

– JESSICA, VERIFIED BUYER

## MEET YOUR ORAL MICROBIOME

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*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

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**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.

- Eat well** – go for a balanced diet, low in sugar and carbohydrates, choose alkalisng 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.
- Stay hydrated** – water is good for everything... including your oral microbiome!
- Tongue scraping** – 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.



## MEET HYDROXYAPATITE

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*Hydroxyapatite has been proven to remineralise and restore tooth enamel, and it's derived from coconut.*



### WHAT IS HYDROXYAPATITE?

Made from the same mineral found in teeth and bones, Hydroxyapatite has been the gold standard of oral care in Japan for over 40 years. It is a biocompatible compound and therefore readily absorbed right down to the tooth's root; unlike synthetic compounds, it reaches the deepest areas of decay and can rebuild enamel on any tooth surface.

### HOW IT WORKS:

Hydroxyapatite particles penetrate below the surface of the enamel, providing replacement calcium and phosphate ions to areas where minerals have dissolved, remineralizing demineralized enamel and restoring its integrity and translucent gloss. This means teeth become harder and stronger, while the tooth's surface becomes smoother and whiter.

### DID YOU KNOW...

The first medical application of hydroxyapatite was in 1970 by NASA. At zero gravity, bones and teeth lose significant mass; so hydroxyapatite was administered to returning astronauts to help repair and remineralise their bones and teeth.

### SCIENTIFIC PAPERS:

One study, published in the British Dental Journal, found 10% hydroxyapatite achieved comparable efficacy with 500ppm F<sup>-</sup> in remineralizing initial cavities and preventing demineralization in children.

Another study, published in the Journal of Dentistry found that toothpaste containing hydroxyapatite revealed higher remineralizing effects compared to amine fluoride toothpastes.

## MEET HYDROXYAPATITE

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*“Many people are looking for a natural toothpaste. I like Gem because it uses hydroxyapatite which occurs naturally in your teeth. Not only does it help remineralise the teeth, but it also helps with sensitivity and can make the teeth look whiter. And as a bonus the four flavours are delicious. It’s now my go-to recommendation for clients looking for a natural toothpaste”*

**– DR FIONA KELLY, DENTIST**





## GEM & SENSITIVE TEETH

### WHAT IS TOOTH SENSITIVITY?

Tooth sensitivity, or dental hypersensitivity, happens when your mouth reacts adversely to external elements, like food, drinks or even brushing.

This means pain can strike after eating an ice-cream, sipping a hot drink or even biting into something acidic, like an orange. This sharp stabbing pain affects a whopping 44% of Australian households.

### HOW DOES IT HAPPEN?

Dental hypersensitivity happens when the gums pull away from the gum line, leaving the Dentin exposed.

Dentin is made up of tiny pores, called dentinal tubes, which lead directly to Dental pulp. This is the softest tissue found at the very centre of your tooth – and it's packed full of nerves and blood vessels.

When enamel is removed, dentinal tubule nerves endings are exposed and hot, cold and acidic foods and drinks can hurt.

### HYDROXYAPATITE & SENSITIVE TEETH

There are dozens of international research papers proving Hydroxyapatite's effectiveness in reducing teeth sensitivity.

The mighty compound works by plugging the exposed dentin tubules with little deposits of Hydroxyapatite. Better still, Hydroxyapatite has hydrating properties, so instead of numbing your nerves like traditional sensitivity agents (Potassium Nitrate), Hydroxyapatite attaches itself to the crown of your teeth to protect them.

Think of it like a shield, protecting your teeth from exposure to painful triggers. Did someone say ice-cream?

### OUR CUSTOMERS AGREE

*"I LOVED that it didn't make my teeth sensitive! For the last 5+ years I have not been able to clean my teeth with anything other than Sensodyne for more than two consecutive days without my tooth sensitivity returning. I was surprised to discover that after almost two weeks of using this natural toothpaste, my teeth are not sensitive."*



## MEET THE NASTY NINE

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*The average Australian spends 24 hours a year filling their mouth with the same toxins found in toilet cleaner and rat poison.*

**One ingredient, Triclosan has been banned in soap and body wash, but is still lurking in our toothpaste. We chose to take out these harmful toxins and replace them with science backed, functional ingredients that actually work.**

### 01 TITANIUM DIOXIDE

An inorganic chemical compound added as a colorant to make toothpaste white.

**Why it's harmful:** Evidence suggests that some nanoparticles in titanium dioxide may induce toxic effects in your brain 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, but is still lurking in our toothpaste for its anti-bacterial properties.

**Why it's harmful:** Triclosan wipes out everything in its path; both good and bad bacteria in your subcribsubmouth. This imbalances your mouth's microorganisms, leading to bad breath, dry mouth and negatively impacting your body's natural ability to build resistance to disease and infection.

### 03 PARABENS

Chemicals used as preservatives to extend the shelf life of toothpaste.

**Why it's harmful:** These compounds can act like the hormone estrogen and are suspected to be endocrine disruptors: thought to potentially lead to cancer, as well as developmental and reproductive issues.

### 04 SLS

This chemical compound is used as a surfactant, detergent denaturant in various cosmetics and industrial cleaners. It's also used as a foaming agent in toothpaste.

**Why it's harmful:** SLS irritates the mouth and strips away the lining, which can lead to canker sores, irritation and organ toxicity. Almost 16,000 studies have exposed the toxic nature of this chemical, often used as an insecticide.

### 05 PROPYLENE GLYCOL

A synthetic chemical compound used as a surfactant. It's also used in antifreeze and paints and is used in toothpastes to smooth out the texture.

**Why it's harmful:** Highly toxic to humans, this compound is known to irritate the skin, eyes, lungs and mucous membranes.

### 06 DEA

A compound used to make your toothpaste foam.

**Why it's harmful:** It 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 organic system toxicity.

## MEET THE NASTY NINE

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### 07 ARTIFICIAL COLORING

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

**Why its harmful:** Artificial dyes may contain up to 10% impurities. Some of these undesired ingredients could include lead, arsenic, mercury and carcinogens. Additionally, artificial colourings have been linked to behavioral problems in children.

### 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 sugar coating, 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 round. No, thank you!



## CONTACT

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*Gem*