MADE FROM MILK. PERFECT FOR TEETH.
We all brush our teeth everyday. But people who really want to care for their teeth are discovering the many benefits that come from moussing their teeth with this remarkable product.
Nature knows best

Nature has masterminded a protein system, casein phosphopeptide, that stabilises calcium and phosphate so that the essential building blocks for teeth and bones can be delivered in a non-crystalline state.

Cow’s milk is recognised as the most efficient carrier of calcium and phosphate, and the specific peptide which so elegantly and efficiently transports these essential minerals is called RECALDENT™ (CPP-ACP), casein phosphopeptide amorphous calcium phosphate.

GC Tooth Mousse Plus contains 10% RECALDENT™ (CPP-ACP) and 900 ppm fluoride in a formulation designed to deliver CPP-ACPF (casein phosphopeptide amorphous calcium phosphate fluoride) to the tooth surface.

Unique characteristics

Amorphous state
The casein phosphopeptide will bind calcium, phosphate and fluoride in an amorphous state, ie not crystallized. This is essential to its function of delivering bio-available minerals.

Adhesive
The casein phosphopeptide will bind to tooth surfaces to localise bio-available calcium, phosphate and fluoride where it is most needed.

Ideal size
CPP-ACPF is less than 2 nanometres in size and is able to penetrate into biofilms and enamel. CPP-ACPF has a neutral charge, so is not hindered in its diffusion characteristics.

Release of ions
CPP-ACPF is a significant source of calcium, phosphate and fluoride ions, with an increasing level of release as the oral pH lowers.

Acid buffer
Via several mechanisms, CPP-ACPF is an excellent buffer to counter acid challenges.
Adding fluoride is a significant plus

The 5:3:1 ratio of ions within CPP-ACPF is perfectly matched to the ratio required to build fluorapatite: \( \text{Ca}_{10} (\text{PO}_4)_6 \text{F}_2 \)

When fluoride ions come into contact with RECALDENT™ (CPP-ACP), the peptide preferentially combines with and stabilises fluoride, to create the ideal source of ions for building fluorapatite; CPP-ACPF.

By matching bio-available calcium, phosphate and fluoride in the ideal 5:3:1 ratio, the full potential of fluoride to help protect and repair teeth can be achieved.

**GC Tooth Mousse Plus is the superior delivery vehicle for fluoride.**
A perfect outcome

**GC Tooth Mousse Plus** contains 10% RECALDENT™ (CPP-ACP) and 900 ppm fluoride in a crème consistency, for topical application, either at home following flossing and toothbrushing, or in the surgery as part of a topical fluoride strategy.

**Use GC Tooth Mousse Plus for:**
- Active caries
- Tooth erosion and wear
- Dry mouth, xerostomia
- White spot lesions
- During orthodontic treatment
- Whitening treatment
- Developmental defects in enamel
- During and after periodontal care
- General prevention

**When is GC Tooth Mousse preferred to GC Tooth Mousse Plus?**
GC Tooth Mousse contains no fluoride and is recommended for:
- children under 6 years of age
- patients where additional fluoride exposure is not desired
Creating super enamel

Dissolution of enamel mineral through acid challenges is a daily process, which is fortunately balanced by opportunities for remineralisation. Maximising remineralisation, so that lost mineral is replaced with fluorapatite, means teeth gain additional strength and acid resistance.

Perhaps this is the holy grail of dentistry; creating “super” enamel by enhancing the natural maturation process, so that teeth are stronger and more acid resistant. The objective being to take nature’s system of protecting and remineralising teeth (ie saliva) and accentuate and accelerate its properties by providing a bioavailable source of calcium, phosphate and fluoride in the right 5:3:1 molar ratio.
Our oral environment is constantly challenged by many different sources of acid, including those produced by cariogenic biofilms and from external acid sources. The level of protection each patient offers to these acid challenges will vary significantly depending on their saliva, fluoride exposure and their oral hygiene habits. For many patients, maintaining a good oral health balance requires additional help in a number of different ways.

GC Tooth Mousse Plus is more than just a source of bio-available mineral; the RECALDENT™ (CPP-ACP) peptide binds to teeth and penetrates biofilms, and is the first choice for:

- **Supplementing saliva**
- **Driving a cariogenic biofilm back to health**
- **Maintaining a neutral oral pH supersaturated with calcium, phosphate and fluoride**
- **Protecting teeth from acid**
- **Lubrication**
- **Reversing the loss of mineral from acid challenges**

GC Tooth Mousse Plus will:

- **Deliver the essential minerals to build fluorapatite – calcium, phosphate and fluoride**
- **Facilitate remineralisation through the body of a lesion, making it stronger and more acid resistant**
- **Reduce plaque acid production**
- **Increase plaque pH**
- **Enhance the level of protection provided by salivary pellicle**

... and for maintaining optimum oral health
Fluoride needs bio-available calcium and phosphate

Without these ions, the effectiveness of fluoride is significantly reduced

Fluoride is central in any professional recommendation to help maintain or improve a patient’s oral health. However, for fluoride to be effective it should be paired with calcium and phosphate in the right molar ratio 5:3:1 (ie 5 calcium: 3 phosphate: 1 fluoride).

For every clinical situation, where there is desire to increase fluoride exposure, the question should be asked, “does this patient have sufficient free calcium and phosphate to ensure the effectiveness of their current level or an increased level of fluoride exposure”?

Ensuring fluoride efficacy

Saliva is the main source of free calcium that will ensure fluoride’s effectiveness. The salivary protein Statherin is able to bind and stabilise calcium and phosphate to maintain a state of saturation with respect to the tooth mineral under normal oral conditions.

However, if saliva quantity or quality is compromised, or if acid producing biofilms exist on smooth surfaces, or if the tooth is constantly challenged by acid (eg erosion), then significantly more calcium and phosphate is required to enhance fluoride’s effectiveness.

RECALDENT™ (CPP-ACP) is the ideal source of such additional calcium and phosphate.
Comparing bio-available calcium and phosphate

Measuring the availability of calcium and phosphate ions in a soluble form is a simple measure for recognising the potential availability of ions for uptake into biofilms and remineralisation. When compared to other dental products, GC Tooth Mousse Plus has a high level of availability.

![Bar chart showing water soluble calcium and phosphate concentrations for various dental products](image-url)

Measuring effectiveness

Changes in salivary mineral content

A group of patients with normal salivary parameters applied various topical remineralisation agents. After 3 minutes, the salivary contents were expectorated and chemical analysis undertaken to determine the mineral forming potential of the saliva.

These results show the limiting factor for the effectiveness of a mineral formation is calcium and phosphate availability. GC Tooth Mousse Plus has a far higher potential to create fluorapatite based on its availability of calcium and phosphate, despite having a lower level of fluoride than many other fluoride containing products.

Degree of saturation of post-rinse/saliva with respect to Hydroxyapatite and Fluorapatite

The proof

Changes in mineral content of white spot lesions

Creating a highly controlled, proven method of measuring remineralisation provides a mechanism for comparing different technologies and gives guidance for clinical recommendations. The use of an in situ model, where enamel slabs are demineralised, embedded in a palatal appliance and worn by volunteers who have healthy saliva, gives a good understanding of the effectiveness of different products. Results are imaged and measured using highly accurate microradiography as per the following research:

Latest developments

**RECALDENT™ (CPP-ACP) for biofilm modification**

Mechanism of action:

- CPP-ACP particle size is ≤2 nanometres and is able to penetrate biofilms.
- Increasing the calcium and phosphate ion concentrations in plaque increases the degree of saturation with respect to apatite and therefore depresses demineralisation.
- Both the CPP and phosphate ions are effective acid buffering agents.
- Bacterial degradation of CPP releases ammonia, which increases plaque pH.
- CPP alters bacterial composition of plaque by preventing the adherence and colonisation of specific cariogenic bacteria.
- CPP-ACP will bind free fluoride ions and transport these into plaque, providing a very efficient delivery mechanism for increasing fluoride ion concentration in plaque.

Confocal scanning laser microscope image of cariogenic *Streptococcus mutans* biofilm

After a 10min treatment with 1% CPP-ACP, the *Streptococcus mutans* biofilm exhibited a 72% reduction in volume

Oral Health CRC, Melbourne Dental School, The University of Melbourne
www.oralhealthcrc.org.au
Application and usage

Patient instructions for application

1. Squeeze a small amount of GC Tooth Mousse Plus onto your finger.
2. Apply to all teeth with your finger and use your tongue to spread around evenly.
3. For maximum benefit, leave GC Tooth Mousse Plus on your teeth for as long as possible. The minimum recommended application time is three minutes. At the end of the application, you can expectorate the remainder.

General prevention

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a day, after flossing and brushing in the evening</td>
<td>Ongoing as part of a general prevention program</td>
<td>Regular use of GC Tooth Mousse Plus will help maintain a healthy oral environment</td>
</tr>
</tbody>
</table>

MODE OF ACTION

GC Tooth Mousse Plus provides additional protection for teeth through a number of different mechanisms
White spot lesions

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a day, after flossing and brushing</td>
<td>8-12 weeks and thereafter as required</td>
<td>There are different types of white spots and pre-treatment of the white spot surface prior to application of GC Tooth Mousse Plus may be required</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

The appearance of white spots on teeth is due to variations in the degree of mineralisation of the enamel matrix and resulting retention of excess water and proteins. This changes the reflection and light scattering properties of enamel to give a variable white appearance. These white demineralised areas may require surface pre-treatment so as to enable the RECALDENT™(CPP-ACP) peptide to penetrate.

Professor Laurence Walsh from University of Queensland has prepared the clinical flow chart shown below:
**Active caries**

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a day, after flossing and brushing</td>
<td>Until risk of future caries has been reduced</td>
<td>Assessment to determine the potential source(s) of risk should be undertaken and suggestions made on how the patient can reduce their caries risk</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

GC Tooth Mousse Plus can repair early damage caused by demineralisation and is able to return a cariogenic biofilm back to health. It is able to reduce plaque acid production, reduce the level of cariogenic bacteria, increase plaque pH and the level of calcium, phosphate and fluoride ions in plaque.

---

The clinical application of surface pH measurements to longitudinally assess white spot enamel lesions.

During orthodontic treatment

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a day, after flossing and brushing</td>
<td>During entire orthodontic process</td>
<td>Complete treatment 12 weeks after the finish of orthodontic procedures, or thereafter as required to reverse any white spot lesions</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

The increase of plaque retention sites with orthodontic fixtures generally leads to an increase in caries risk for the patient. GC Tooth Mousse Plus will offer additional protection for an orthodontic patient, through positive biofilm modification, through increased availability of bio-available calcium, phosphate and fluoride in saliva, and, in situations where demineralisation has started, through reversal of any early white spot lesions.

Developmental defects in enamel

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum twice a day, after flossing and brushing, and as required for sensitivity</td>
<td>Continuous treatment as required</td>
<td>Depending on severity, additional protection can be achieved by sealing hypomineralised surfaces with a glass ionomer cement (eg Fuji VII)</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

Hypomineralised enamel is more susceptible to acid attack and is often associated with sensitivity. The RECALDENT™(CPP-ACP) peptide is able to penetrate the hypomineralised enamel and continue the partially completed mineralisation process providing strength and acid resistance to these weakened surfaces. Depending on the degree of severity and compliance, the treatment with GC Tooth Mousse Plus could be the preferred long term treatment strategy, or it may simply be a transitional step focused on patient comfort prior to extensive restorative treatment.
## Whitening treatment

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIOR TO STARTING TREATMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twice a day, after flossing and brushing</td>
<td>Start 1-2 weeks before whitening procedure</td>
<td>Pre-whitening applications of GC Tooth Mousse Plus will help reduce the degree of whitening sensitivity</td>
</tr>
<tr>
<td><strong>DURING TREATMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Following removal of the whitening tray</td>
<td>Finish 2 weeks after the final whitening application</td>
<td>The whitening tray can also be used to apply GC Tooth Mousse Plus</td>
</tr>
</tbody>
</table>

### MODE OF ACTION

GC Tooth Mousse Plus is able to protect and soothe areas of exposed dentine which are potential sources of sensitivity during the bleaching process. GC Tooth Mousse Plus will not interfere with the action of bleaching agents, and will help improve the aesthetic outcome following whitening treatment, through increased mineral in the enamel structure. Bleaching helps clean protein from interprismatic spaces, providing avenues for improved penetration of RECALDENT™(CPP-ACP) so that higher levels of mineralisation can be achieved.

![Before whitening](image1)

![Immediately following initial whitening appointment – heavy white staining is still apparent.](image2)

![Two weeks after final whitening appointment and twice daily application of GC Tooth Mousse.](image3)
Tooth erosion and wear

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum twice a day, before and after exposure to acid challenges</td>
<td>Until risk of acid exposure is reduced</td>
<td>Identify source of acid and, where possible, reduce or encourage a reduction in exposure and increase saliva stimulation</td>
</tr>
</tbody>
</table>

MODE OF ACTION

RECALDENT™(CPP-ACP) is able to bind to the tooth surface to provide a protective coating. This coating functions as a lubricant, helps in the management of dentinal hypersensitivity and provides the tooth with an ion source and barrier to acid attack.

Acid will remove the protective pellicle layer. Exposed dentine tubules will often result in dentine hypersensitivity

Following application of CPP-ACP
Dry mouth, xerostomia

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum twice a day, additional as required, based on measure of saliva quality and quantity</td>
<td>Continuous treatment while the level of protection from saliva is reduced</td>
<td>Saliva testing will help quantify the extent of risk. GC Dry Mouth Gel can be used in conjunction with GC Tooth Mousse Plus to help alleviate dry mouth symptoms and provide oral comfort</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

The RECALDENT™(CPP-ACP) peptide stabilises and delivers calcium and phosphate, fulfilling a similar role to that of the salivary protein Statherin; one of many protein systems within the body that transport calcium and phosphate essential for the growth and health of our teeth and bones.

When a patient has reduced saliva flow, they have reduced protection and availability of calcium and phosphate – hence the need for GC Tooth Mousse Plus.

During and after periodontal care

<table>
<thead>
<tr>
<th>HOW OFTEN</th>
<th>DURATION</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a day, after flossing and brushing</td>
<td>During entire period of care and for 4 weeks after completion</td>
<td>GC Tooth Mousse Plus contains RECALDENT™ (CPP-ACP) which inhibits calculus formation</td>
</tr>
</tbody>
</table>

**MODE OF ACTION**

RECALDENT™(CPP-ACP) is able to bind to the tooth surface to provide a soothing, protective coating.
If you have a sensitivity to benzoate preservatives
If you have a milk protein allergy
For children under six years of age. This is because it is not suitable for you.
they can advise if GC Tooth Mousse Plus would be beneficial for you. Issues relating to your oral health. Based on their diagnosis, a dental professional is the best person to discuss specific
• If you are at increased risk of decay as a result of medical
• If you have an acidic oral environment
• If you suffer from dry mouth
• If you have erosion or tooth wear
• If you have sensitive teeth
• If you have active decay in your mouth

GC Tooth Mousse Plus could increase their risk of dental fluorosis. For young children ingestion of GC Tooth Mousse Plus could be helpful. The fluoride level in GC Tooth Mousse Plus approximates that in adult strength toothpastes. When used as directed, this product is effective in preventing and repairing white spots (sub-surface lesions) during orthodontic treatment. GC Tooth Mousse Plus helps reduce the risk of tooth decay and it is often visible as a white spot on the tooth surface. This is the start of tooth decay and it is often visible as a white spot on the tooth surface. This is the start of tooth decay. Unless extra care is taken to keep your teeth clean and strong, wearing braces or an appliance can make it difficult to maintain clean and healthy teeth. Unless extra care is taken to keep your teeth clean and strong, wearing braces or an appliance can make it difficult to maintain clean and healthy teeth. Extra care is taken to keep your teeth clean and strong, wearing braces or an appliance can make it difficult to maintain clean and healthy teeth. Extra care is taken to keep your teeth clean and strong, wearing braces or an appliance can make it difficult to maintain clean and healthy teeth. Extra care is taken to keep your teeth clean and strong, wearing braces or an appliance can make it difficult to maintain clean and healthy teeth. Starting orthodontic treatment means you are now on the path to achieving your perfect smile – but helping you create the perfect smile

GC Tooth Mousse
Assorted Pack 10 pcs, 2 of each flavour (Melon, Strawberry, Tutti-Frutti, Mint & Vanilla)
Strawberry, Pack of 10 pcs
Vanilla, Pack of 10 pcs
Mint, Pack of 10 pcs
40g tube (35ml)

GC Tooth Mousse Plus
Topical crème with calcium, phosphate and fluoride
Assorted pack 10pcs contains:
4 x Mint, 4 x Strawberry, 2 x Vanilla
40g tube (35ml)

Also available in a mint only 10 pack