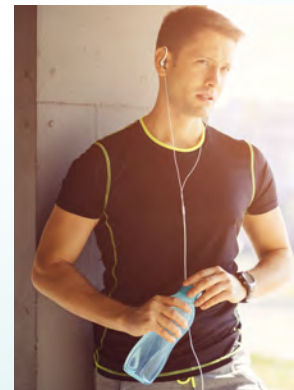


PRONAMEL

Leading the way in prevention of acid wear of the enamel



*#1 Recommended toothpaste brand for acid wear by dental professionals.

P R O N A M E L

Key Objective

By the end of this presentation, you will be able to:

Understand the **IMPACT** of enamel wear and be **INSPIRED** to take a **PROACTIVE** role in helping patients protect their enamel and keep their teeth white





Patients like Shari could be at risk of acid wear of the enamel

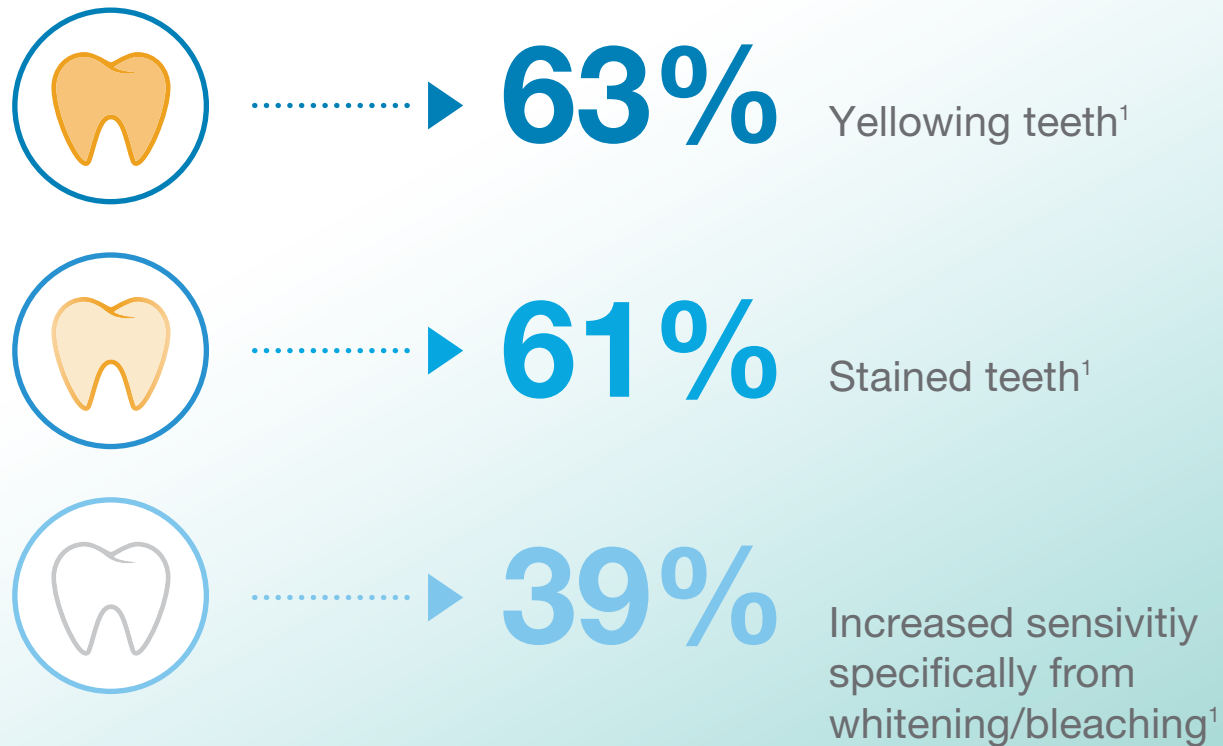
- Fit and active
- Highly engaged in '*preventative healthy behaviours*' such as eating a healthy yet acidic diet
- She has no visible issues with her teeth and does **not** exhibit any of the **preliminary signs of acid wear of the enamel**
- Invests in **maintaining a healthy white smile**
- Uses **whitening pastes** that may contain **chemical bleaching agents**

What does Shari care most about when it comes to the appearance of her smile?



PRONAMEL

Shari is primarily concerned with maintaining healthy-looking white teeth¹



US Oral Care Concerns, January 2015

Base: 1,994 internet users 18+ who perform oral care (US)

1. Mintel Group Ltd. Oral hygiene global annual review 2016. Mintel Group Ltd. 2016.

PRONAMEL

However, there is a disconnect between Shari's priorities and her dental hygienist's priorities

Even though white teeth may not be your main concern, encouraging patients to take better care of their teeth can help prevent more severe oral health problems!



Patient Concerns¹

1	Cavities	70 %
2	White teeth	68 %
3	Cost of treatment	68 %
4	Receding gums	61 %
5	Tooth decay	49 %
6	Halitosis/bad breath	42 %
7	Loss of teeth	38 %
8	Gingivitis	37 %
9	Periodontal disease	33 %
10	Other	2 %



Dental Professional Concerns¹

1	Periodontal disease	92 %
2	Tooth decay	72 %
3	Gingivitis	71 %
4	Receding gums	68 %
5	Cavities	67 %
6	Loss of teeth	63 %
7	Halitosis/bad breath	26 %
8	Cost of treatment	18 %
9	White teeth	14 %
10	Other	3 %

Base: All respondents [n=200]

A. What are your patients primarily concerned about when it comes to their oral health?

B. What are you primarily concerned about when it comes to your patient's oral health?

1. Ipsos, GSK New Expert Performance Tracking. Ipsos Healthcare, 2018.

What does Shari typically eat?



PRONAMEL

Shari eats a very healthy yet acidic diet

Patients like Shari are concerned with maintaining their health, leading to increased consumption of healthy yet acidic foods:



The energy drinks and shots market grew **60%** from 2008 to 2012¹



Frozen fruit consumption is expected to increase **39%** by 2020²



94% of consumers are snacking at least once per day. Smoothie consumption has grown **36%** over two years³

Product	pH
ENERGY DRINKS	2.61 - 3.15 ⁴

Product	pH
ORANGES	2.8 - 4.0
PLUMS	2.8 - 4.6
STRAWBERRIES	3.0 - 4.2
BLUEBERRIES	3.1 - 3.3
APPLES	3.1 - 5.4

Product	pH
VEGETABLES	3.9 - 5.1
YOGURT NATURAL	4.2
BANANAS	4.5 - 5.2

1. Energy Drinks and Shots: U.S. market trends. *Packaged Facts*. 2013 LA4873763.

2. Serecon Management Consulting Inc. Canadian Food Trends 2020: A Long Range Consumer Outlook. Serecon Management Consulting Inc. 2005.

3. Fromm J, What Brands Need to Know About Modern Millennial Snack Culture. *CMO Network*. 2017.

4. Reddy A, The pH of beverages in the United States. *JADA*. 2016.


If Shari continues to eat an acidic diet and brush with her whitening toothpaste, what problems could she develop?

- a) Caries
- b) Gum disease
- c) Irreversible enamel wear
- d) None of the above

PRONAMEL

Acidic diets and brushing can lead to **irreversible** enamel wear¹⁻⁴

4X  As few as 4 acidic challenges a day can increase the progression of enamel wear⁴

 In 2 years, **toothbrush abrasion** and **erosion** can remove **1mm** of enamel*



Over 50% of patients between the ages of 18-35 exhibit tooth surface loss⁵

*Data reproduced from a presentation by Dr. David Bartlett. 2012.

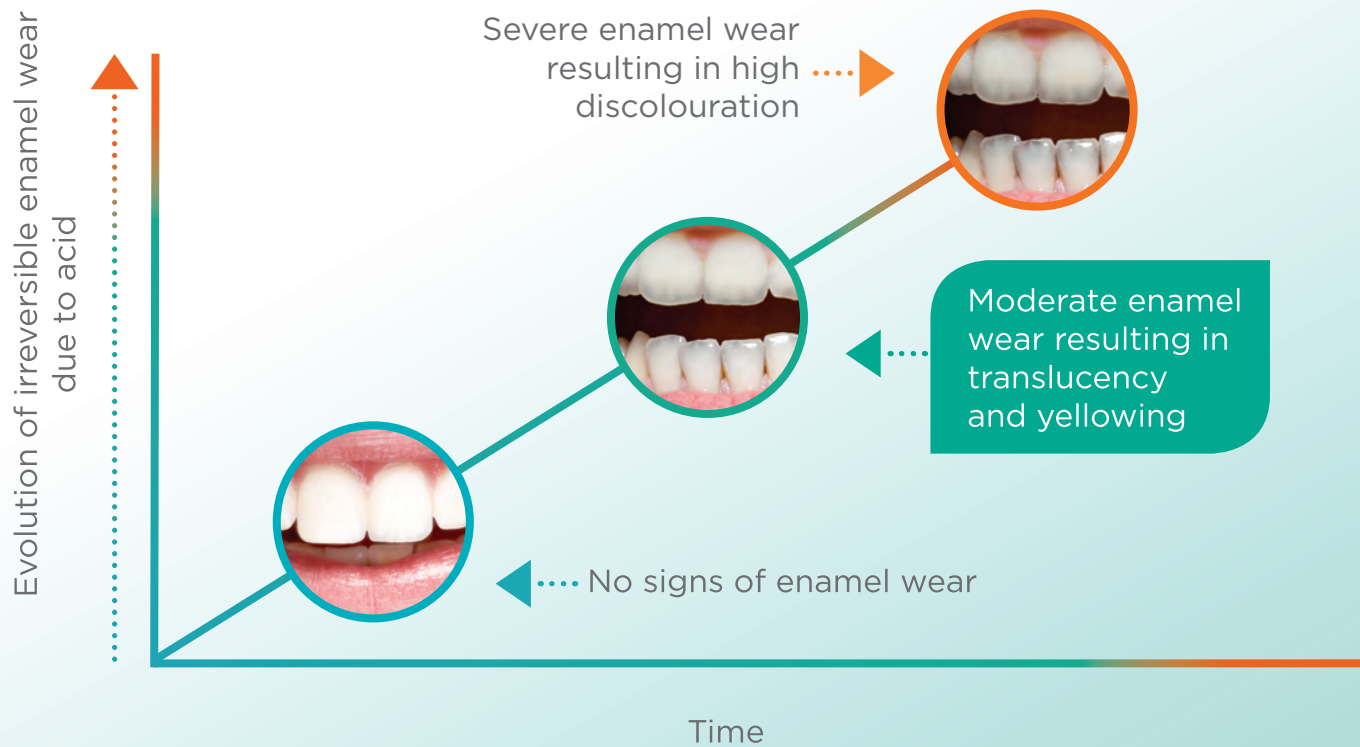
1. Lussi A, Erosive Tooth Wear - A Multifactorial Condition. In: Lussi A, editor. *Dental Erosion - from Diagnosis to Therapy*. Kruger, Basel, 2006.
2. Lussi A, *Eur J Oral Sci*. 1996;104:191-198.
3. Hara A, *et al*. Influences of Fluoride Availability of Dentifrices on Eroded Enamel Remineralization in situ. *Caries Res*. 2009;43:57-63.
4. Lussi A, *et al*. *Caries Res*. 2004; Suppl 1:34-44.
5. Bartlett DW, *et al*. *J Dent*. 2013;41:1007-1013.

If Shari leaves her enamel unprotected, what may her teeth look like eventually?

- a) Dull, yellow teeth
- b) There will be no visible changes to her teeth
- c) None of the above

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Over time, signs of damage to her enamel can become visible and her teeth may start to look yellow



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Once you see this, the patient's enamel wear is irreversible



Yellowing (advanced sign)



Palatal erosive tooth wear



Surface changes (smoothing)



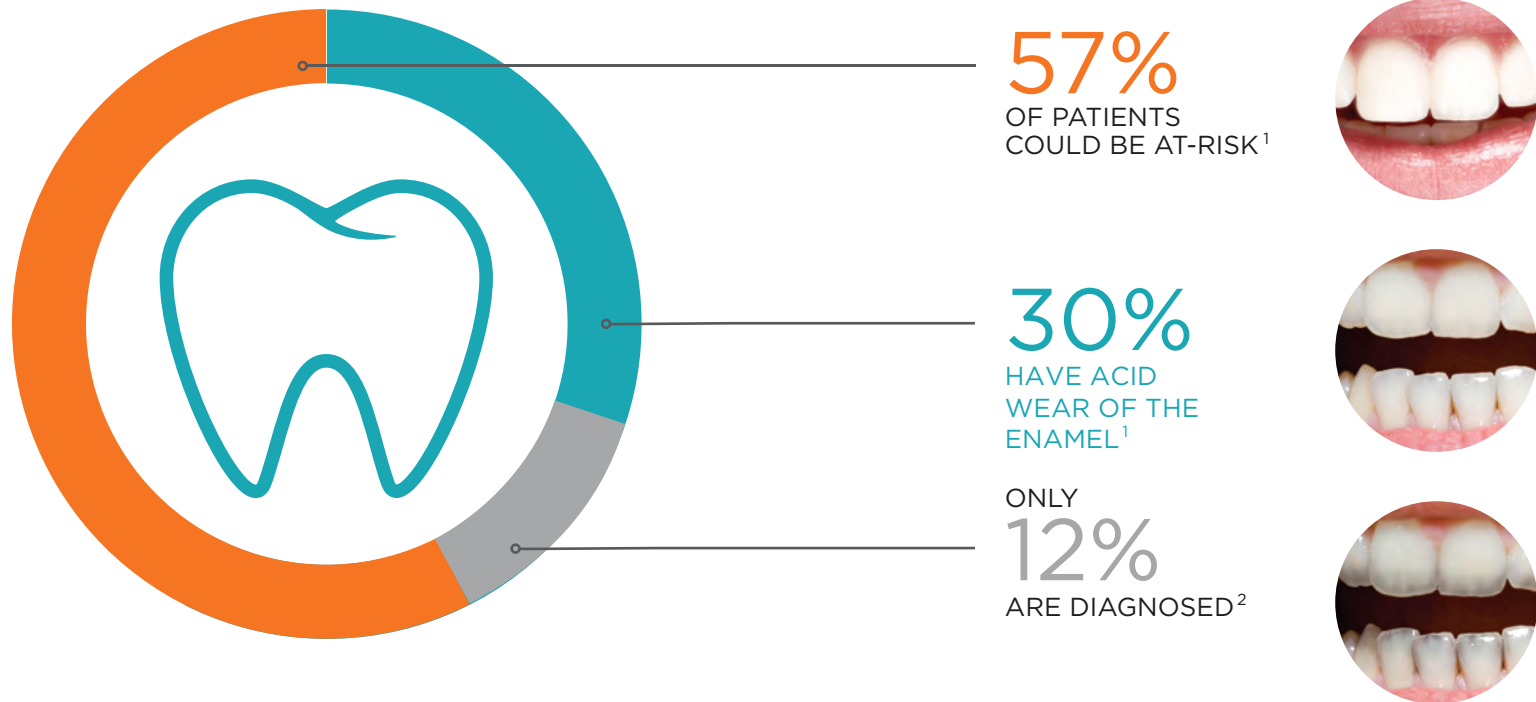
Loss of structural features (rounding)

What percentage of your patients, like Shari, are at risk of acid wear of the enamel?

- a) 13%
- b) 35%
- c) 57%
- d) 100%

PRONAMEL

Close to 60% of your patients require a conversation about acid-related enamel wear



1. Bartlett DW, *et al. J Dent* 2013;41:1007-1013.

2. Ipsos. DP Connections Tracker 2013: GSK. Ipsos Healthcare. 2013.

What should you do to help patients like Shari prevent acid wear of the enamel and to protect their white smile?



Start a conversation about enamel protection with your patients who have great oral health to help them avoid irreversible enamel wear



“How would you describe your diet?”

“What kind of toothpaste do you use at home?”

PRONAMEL

Educate patients like Shari to follow these simple steps to help obtain strong, resilient enamel



Minimize exposure to acids



Brush teeth with appropriate technique



Use a specially designed fluoride toothpaste that helps strengthen enamel

How is Pronamel specifically designed to help protect against acid wear of the enamel?





Not all fluoride toothpastes are the same^{1,2}

Pronamel delivers:

- Low abrasivity*³
- Strong remineralization¹
- Ionic form of fluoride³
- Neutral pH⁴
- No phosphates, polyvalent metal ions, or SLS^{3,5,6}

*with Pronamel Fresh Wave and Mint Essence.

1. GSK Data on file 144803.

2. GSK Data on file 161181.

3. Barlow AP, et al. *J Clin Dent* 2009;20(6):192-198.

4. Friberger P, et al. *Scand J Dent Res* 1975;83:339-344.

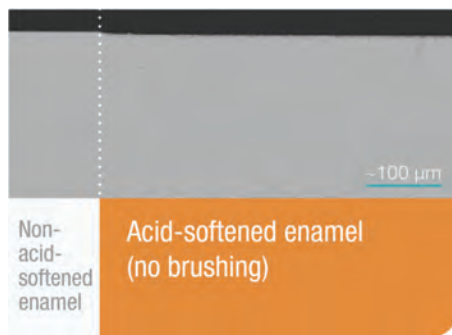
5. Zero DT, et al. *Caries Res* 2000;34:308-360.

6. Barkvoll P, et al. *Caries Res* 1988;22:139-144.

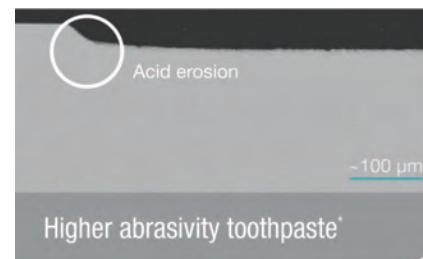
PRONAMEL

Pronamel is formulated with **low abrasivity**¹

Gentle formulation to ensure minimal wear on acid-softened enamel²



Brushing →



High level of material removal from enamel after brushing with a **higher abrasivity toothpaste***



Pronamel helps to maintain the structural integrity of the enamel surface

*Colgate Enamel Health. Sourced and tested in 2016.
 1. Barlow AP, *et al. J Clin Dent.* 2009;20(6):192-198.
 2. GSK Data on file 162366.

PRONAMEL

Pronamel provides **higher availability of fluoride**¹

● Another Competitor

- Standard type of fluoride
- Polyvalent metal ions
- Polyphosphates
- Anionic detergent
- Preferentially bind to fluoride

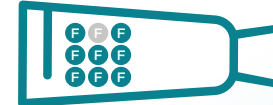
● Pronamel

- No phosphates
- No polyvalent metal ions
- Ionic form of fluoride
- No SLS
- Higher uptake of minerals into enamel surface

1 standard fluoride formula



2 Pronamel

Adapted from Layer¹

Less fluoride available to protect enamel

Higher availability of fluoride and calcium

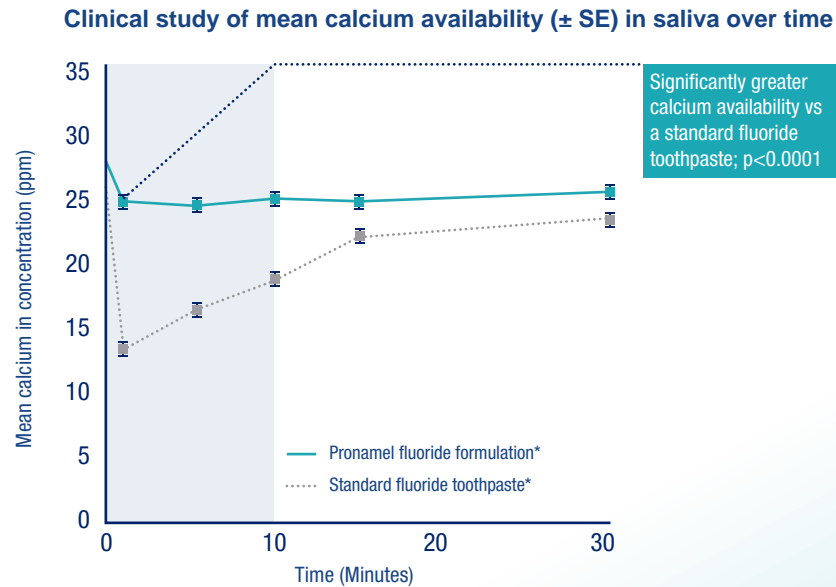
1. Layer TM-2009- Developing Toothpastes Suitable for Those at Risk from Erosive Tooth Wear.

PRONAMEL

Creates an oral environment that supports remineralization

In an *in vivo* study against a standard fluoride toothpaste, specially formulated Pronamel:

- Maintained higher levels of fluoride¹
- Maintained higher availability of calcium¹



* Tested on Pronamel and Colgate Sensitive Enamel Protect (both containing 1450 ppm fluoride as NaF) UK formulations sourced and tested in 2014. NaF, sodium fluoride; SE, standard error.
1. GSK Data on file RH02217.

PRONAMEL

Delivers more fluoride deeper into the enamel for better remineralization¹

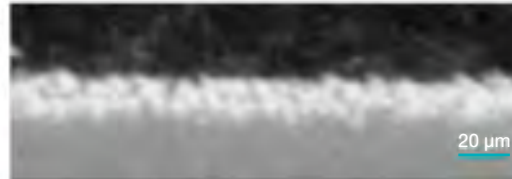
In vitro cross-sectional DSIMS images of enamel surface

No fluoride uptake



Placebo
(0 ppm fluoride)

Less fluoride uptake vs Pronamel



Standard fluoride toothpaste*
(1150 ppm fluoride as NaF)



Pronamel
(1150 ppm fluoride as NaF)

Based on mean fluoride/oxygen ratio measured at a depth of 10 µm.

*Colgate Enamel Health. Sourced and tested in 2014. DSIMS, dynamic secondary ion mass spectrometry, NaF, sodium fluoride; ppm, parts per million.

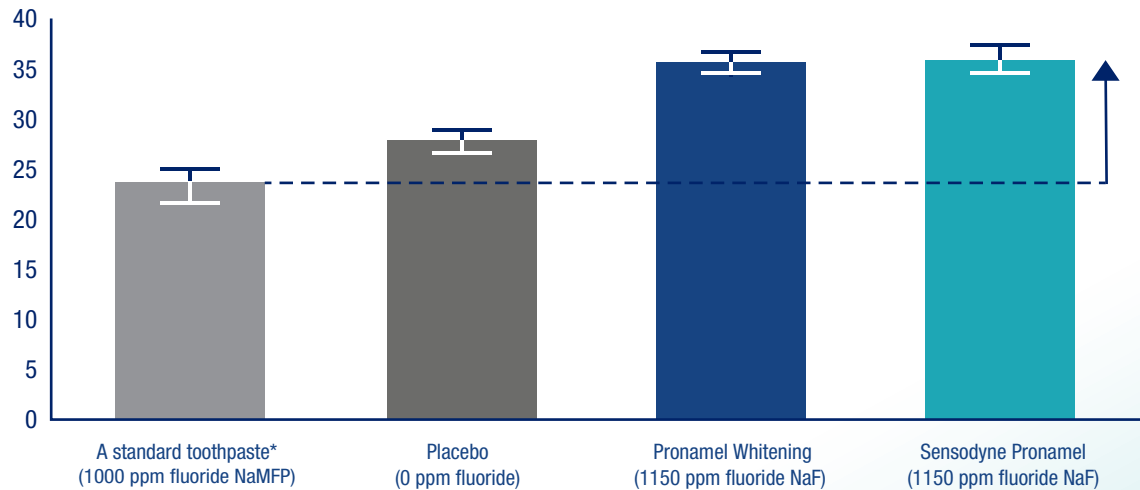
1. GSK Data on file 144803.

P R O N A M E L

Improves mineral uptake leaving enamel resilient to subsequent acid challenge¹

In this in situ study, Pronamel provided an increase in surface microhardness of acid-softened enamel than certain standard fluoride toothpastes¹

In situ clinical study of surface microhardness recovery following an acid challenge



*Colgate Sensitive Multi Protection. Sourced and tested in 2008.

NaF, sodium fluoride; NaMFP, sodium monofluorophosphate; ppm, parts per million

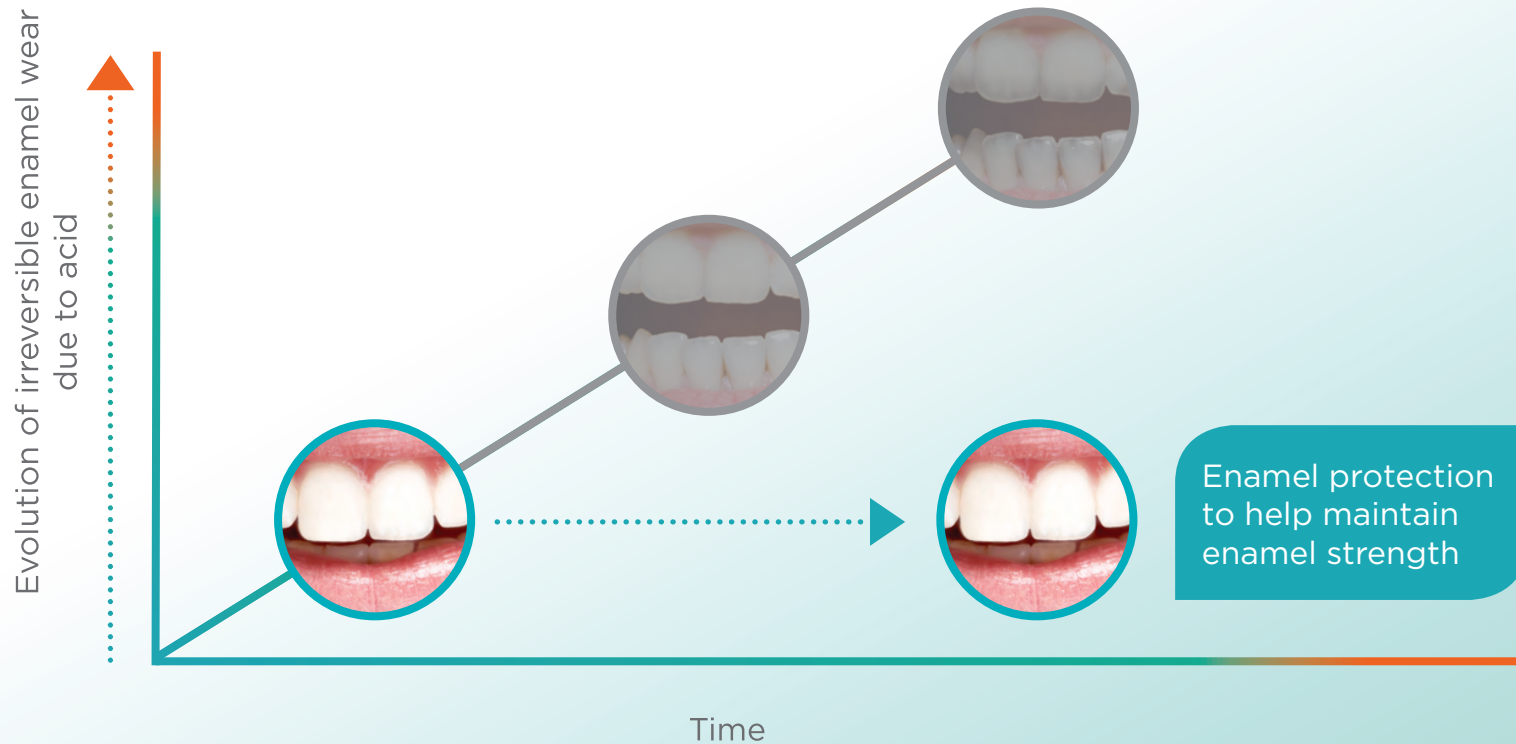
1. Barlow AP, et al. *J Clin Dent.* 2009;20(6):192-198.

What advice should you give patients like Shari to help them protect their enamel and maintain their white smile?



PRONAMEL

Protect enamel with the right toothpaste before the signs of damage and yellowing become visible



PRONAMEL

Recommend Pronamel toothpaste
to help protect your patient's enamel*



*Also relieves tooth sensitivity.

PRONAMEL

Start early with Pronamel For Children*

Fluoride uptake, enamel rehardening
and softening prevention^{1,2}

Gentle abrasion formulation to help
limit wear on acid-softened enamel

Mild minty taste to help
encourage brushing³



Pronamel For Children toothpaste with sodium fluoride demonstrated significantly greater fluoride uptake, enamel rehardening and enamel softening prevention *in vitro* compared to a general family toothpaste with NaMFP.

***Does not have potassium nitrate.**

1. GSK data on file. DOF 151257. 2015.

2. GSK data on file. Study ML605. 2015.

3. Dattani S, Documentation To Support the Claim: Sensodyne Pronamel for Children has been developed with Dentists. Expert Panel Meeting. Little Bridge - Pronamel for children. 2008. Pronamel For Children toothpaste with sodium fluoride demonstrated significantly greater fluoride uptake, enamel rehardening and enamel softening prevention *in vitro* compared to a general family toothpaste with NaMFP.

PRONAMEL

We can help you motivate your patients to help protect their enamel



TOOLS AVAILABLE



pH TOOL
CLINGZ



PRONAMEL
FOR CHILDREN
SAMPLES



PRONAMEL
TEAR PAD



PRONAMEL
FRESH WAVE
SAMPLES



PRONAMEL
LEAVE BEHIND

PRONAMEL

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- Barkvoll P, *et al.* Effect of Sodium Lauryl Sulfate on the Deposition of Alkali-Soluble Fluoride on Enamel *in vitro*. *Caries Res* 1988;22:139-144.
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- Bartlett DW, *et al.* Prevalence of tooth wear on buccal and lingual surfaces and possible risk factors in young European adults. *J Dent* 2013; 41:1077-1013.
- Dattani S, Documentation To Support the Claim: Sensodyne Pronamel for Children has been developed with Dentists. *Expert Panel Meeting. Little Bridge - Pronamel for children.* 2008.
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- Reddy A, *The pH of beverages in the United States.* *J Am Dent Assoc.* 2016.
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- Zero ZDT, *et al.* Effect of Pyrophosphate on Fluoride Enhanced Remineralization after an Erosive Challenge. *Caries Res* 2000;34:308-360.