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March 17, 2011

## **Over 90% Dentine Hypersensitivity Sufferers Ruin Their Teeth Dentists Call to Avoid Extraction by Early Reparation and Behavioral Change**

Responses common to dentine hypersensitivity are simply negligence, as long as it does not hurt too bad. People suffering from dentine hypersensitivity tend to regard it as trivial and unworthy of any attention. In other words, life goes on, dietary habit remains and business as usual. Yet, this is no different from self-ruining. Dentists stress that procrastination in treatment may result in complex treatments such as endodontic treatment and restorations, and urge sufferers to repair and protect their teeth instead of just aiming at symptomatic relief.

In light of this, SENSODYNE® commissioned the Public Opinion Program of The University of Hong Kong to conduct a survey to unveil the everyday practices and preferred treatments of dentine hypersensitivity sufferers. 505 Hong Kong citizens with dentine hypersensitivity symptoms, aged between 25 to 55, responded to the survey "Self-ruining practices of Hong Kong dentine hypersensitivity sufferers", conducted from March 4 to 10, 2011.

Result shows that 30% of the respondents rated the degree of their dentine hypersensitivity as medium to severe. However, how they dealt with the problem did not correspond to the level of their awareness: 16% just ignored the problem, whereas among those who opted for actions, 33% just wanted to relieve the pain.

### Self-ruining practices by over 90% dentine hypersensitivity sufferers

Sufferers not only ignored their dentine hypersensitivity, they even committed 4 kinds of what can be understood as self-ruining practices:

- 79% eat or drink other than 3 regular meals and water / tea
- 42% frequently intake foods or beverages which are high in sugar content, 79% frequently intake citrus fruits, or foods or beverages which are high in acidity.
- 93% of the respondents brush their teeth using incorrect methods: 63% brush in groups of a few teeth back and forth in horizontal motion, 20% use hard brush, 30% and 49% brush vigorously and for too long respectively, 25% brush their teeth too frequently, while 29% will brush their teeth immediate after meals, mistaking these practices as the right way to keep their teeth clean
- 39% of the respondents did not use desensitizing toothpaste or use toothpaste following dentists' advice: 10% only "choose by price", 17% only "use whatever their family members use", 5% even only use toothpaste with abrasives for stain removal

66% agonized with denture, extraction, endodontic treatment, alongside with self-ruining practices

The survey indicates that the emotion of the sufferers have been affected by the pain caused by dentine hypersensitivity; for 15% of them, the bad feeling persisted for the whole day since they rinse their mouths in the morning with cold water. 66% is agonized with the dentine hypersensitivity-associated complications, among them, the most worried being extraction (55%), use of denture (49%) and endodontic treatments (47%). Paradoxically, over 90% sufferers still hold onto their self-ruining practices even although they worry about the adverse consequences of dentine hypersensitivity, which is a worrisome phenomenon.

#### Top 4 sensitive teeth self-ruining practices

Dr. Katherine Leung, Associate Professor in Oral Rehabilitation, Faculty of Dentistry, The University of Hong Kong, points out that dentine hypersensitivity is caused by wearing of enamel or gingival recession that results in exposing the dentine underneath. External stimuli that irritate the nerves in the dental pulp via the numerous dentinal tubules, causing painful sensation. People suffering from dentine hypersensitivity are mainly at the age of 35 or above, while female are more susceptible than male (2:1). Here are the major causes of exposed dentine:

- gingival recession: poor tooth brushing technique-or consequence of periodontal diseases; and
- wearing of enamel: such as teeth grinding (attrition), vigorous tooth brushing (abrasion), or frequent acidic erosion of the teeth

“The survey demonstrates that Hong Kong people pay minimal attention to address the problems of dentine hypersensitivity”, Dr. Katherine Leung asserts, “if the self-ruining practices persist, the condition will be worsened”.

<b>Top 4 self-ruining practices of dentine hypersensitivity</b>	<b>Causes and consequences</b>
Frequent intake of food / drinks between regular meals	Saliva can neutralize the acidity in the oral cavity, and repair the enamel through remineralization. This takes place one or two hours after each meal. If one eats too frequently, saliva will be rendered making it incapable to neutralize the acidity, causing further wear off of the exposed dentine.
Frequent intake of foods and beverages high in sugar content or acidity	Sweet and sour foods leads to rapid rise in the acidity in the oral cavity, which promotes the growth of germs and accumulation of dental plaque. The high level of acidity caused and maintained by the germ would prevent saliva from neutralizing the acidity, causing further wear off of the exposed dentine.
Brushing teeth improperly	Brush with hard bristles, brushing immediately after meals, frequent, prolonged and forceful brushing will speed up the damage of enamel and dentine, thus, increasing the degree of dentine hypersensitivity
Picking toothpaste by price, even abrasive toothpaste, instead of personal need	The coarse particles in abrasive toothpaste, upon prolonged usage, would wear off enamel, further affecting exposed dentine. Toothpaste without desensitizing function is incapable of relieving the symptoms, painful sensation will still be triggered upon intake of cold/hot/sweet/sour foods and beverages

Dr. Leung asserts, prolonged self-ruining of teeth deteriorates dentine hypersensitivity, not only affects the quality of life of the sufferers, but also damages their tooth tissues, or causing even fracture of the tooth crown, which requires complicated treatments to restore them. A survey<sup>1</sup> conducted last year indicated that, the youngest sufferer is only 20, which is alarming. “When the loss of tooth substance is severe, complex treatments such as advanced restorations and endodontic treatments are required and the appearance and health of the affected teeth may not be fully restored. or restorations, those treatments are highly complex which does not guarantee complete recovery in may not terms of outlook or health of the teeth, even if the treatments are successful,” said Dr. Leung. She reminds dentine hypersensitivity sufferers to seek proper treatment as soon as possible, so as to avoid irreversible consequences.

Dentist Dr. Tony Fok emphasizes that dentine hypersensitivity sufferers should avoid treatments aiming at symptomatic relief only, and should instead prioritize repairing the teeth. Dentists handle dentine hypersensitivity under 2 major principles: protect and repair, with the objective to minimize dentine exposure. In the past, dentine hypersensitivity management at home mainly rested with symptomatic relief with the use of desensitizing toothpaste on a daily basis. With the technology breakthrough, “NovaMin™” which has been applied in bone repair for more than 30 years, finally making dentine hypersensitivity repairing at home possible.

#### Reparation as priority with first ever “toothpaste for dentine hypersensitivity reparation at home” to form protective layer

It was found that teeth and bone are highly similar in structure and contain the same mineral calls hydroxyapatite. More than a decade ago, medical researchers began the study to adopt “NovaMin™”, a material used for bone repairing technology, in dental care. NovaMin™ forms mineral layer through releasing elements naturally found in healthy teeth and bone: calcium and phosphate.

When NovaMin™ comes into contact with saliva, it releases calcium and phosphate to build a hydroxyapatite-like layer over exposed dentine. The new layer is strongly bound to collagen in dentine and forms a firm reparative layer.

Since NovaMin™ reacts rapidly with other toothpaste ingredients (especially fluoride) which would release calcium and phosphate ions in the tube, application in toothpaste is a real challenge. Yet after continuous investigation, “dentine hypersensitivity reparation at home” is now made possible with the world's first fluoride toothpaste with NovaMin™ , which can repair and protect exposed dentine.

Dr. Fok quotes a study, with twice-daily brushing for 4 days, the new reparative layer built by NovaMin™ is 60% harder than the original exposed dentine. The new reparative layer effectively provides stronger protection and resistance against the 2 daily oral challenges: tooth brushing and erosion caused by frequent intake of acidic food and drinks. Brush with toothpaste containing NovaMin™ twice daily on a regular basis helps to repair and protect sensitive teeth and improve exposed dentine effectively.

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<sup>1</sup> “The situation of sensitive teeth in Hong Kong – from a dentist's perspective”, POP HKU, 2010

A study published in the year 2010 compared the efficacy of toothpastes containing NovaMin™<sup>2</sup>, potassium nitrate (a typical desensitizing toothpaste ingredient) and placebo in dealing with dentine hypersensitivity, the results demonstrated a significant improvement of the mean VAS score and sensitivity of sufferers using NovaMin™ in cold water and air test, the extent of improvement of it also out-performed the other 2 options.

#### Beer with straw: the young mum's solution to dentine hypersensitivity

Jenny first suffered from dentine hypersensitivity about 10 years ago. At the age of early 20s, she is a real lover of cold-drinks, she drinks cold water even in winter time. However, she shivers and suffers from painful feeling whenever she has cold beverages. In order to avoid sensitive teeth being stimulated, she would use a straw whenever a cold-drink is in front of her. She also needs to quit iced snacks such as frappe bliss and ice cream. She likes gathering with friends, yet people's attentions are usually drawn when she sips the glass of beer with a straw, even her friends would be surprised. At times when straw is not available, in order to avoid being stimulated, she would have to sip the drink slowly and little by little.

She admitted that she thought dentine hypersensitivity is natural-born, as a result, she did not care to alter her daily practices – acidic drinks remained as her regular beverages. She uses whitening toothpaste, and when it came to the choice of toothpaste, packaging was the criteria instead of functions. She also thought that treatments of dentine hypersensitivity are complicated, and hence was very reluctant.

Koeman has been suffering from dentine hypersensitivity sufferer since 10 years ago. Pretty much like Jenny, he did not take the symptoms seriously. He just used whatever toothpaste bought by his family members, and functions of toothpaste were not quite his concern. The 20-something Koeman mistook dentine hypersensitivity as a typical kind of pain, which needs to take pain-killer, yet he did not seek advice from dentists as he considered his condition was only a mild one.

Sour and sweet foods were his favourites that he has everyday, and so were juice and lemon tea. He usually drinks with a straw to avoid triggering any dentine hypersensitivity symptoms. However there are also inconvenient situations when straw does not help: such as after strenuous exercises, he would need to compensate for water loss by drinking big mouthful of water. He would try pouring the water right down the throat, trying not to have the cold water touched his teeth, yet painful feelings are still sometimes inevitable.

Both Jenny and Koeman said they have experienced great improvement after using toothpaste containing NovaMin™ and fluoride, in which, Koeman said his twinge has reduced by 60-70% while Jenny said her teeth are cleaner and smoother after using the new toothpaste. Both of them said will continue to use the toothpaste with NovaMin™ and fluoride, which can repair their sensitive teeth and relieve the symptoms. They all look forward to enjoy all kinds of great food again.

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<sup>2</sup> Pradeep AR et al. J Periodontol 2010. Aug; 81(8): 1167-73

**SENSODYNE®**

With nearly 50 years of committed researches on relieving dentine hypersensitivity, SENSODYNE® is a renowned authority in the industry of desensitizing toothpaste. Research showed that SENSODYNE® is Hong Kong NO. 1 dentist's recommended desensitizing toothpaste▲. Brushing twice daily, SENSODYNE® is able to relieve symptoms of dentine hypersensitivity and maintain your dental hygiene. SENSODYNE® provides a full range of oral care products, including toothpaste, tooth brush and mouth rinse for dentine hypersensitivity patients. SENSODYNE® takes total care of your oral needs.

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▲ IPSOS HK, Project Benchmark: Dentists Hong Kong, Jun 10