



Canadian Advisory Board on Dentin Hypersensitivity

Dentin Hypersensitivity

Addressing a New Priority

The high prevalence of dentin hypersensitivity, combined with continued underreporting and underdiagnosis, has intensified the need to focus on the management of this condition. Responding to that need, the Canadian Advisory Board on Dentin Hypersensitivity, a committee representing a broad range of dental care specialties, convened to determine best-practice recommendations.¹ Collectively, they evaluated the scientific evidence as well as condition-related knowledge gaps that were identified by an extensive national survey of 8,000 dental professionals (7% response rate). By contributing their own diverse expertise, the committee produced the first ever “Consensus-Based Recommendations for the Diagnosis and Management of Dentin Hypersensitivity” to provide direction to the dental care profession.



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Many patients hesitate to open up. Dentin hypersensitivity may be more common than you think.

Often referred to as the “common cold of dentistry,” dentin hypersensitivity is highly prevalent, affecting anywhere from 8 to 57%

of the general population.¹ For patients who whiten their teeth, the occurrence can be even higher, reaching 75%.² Patients’ lack of awareness and basic understanding about the condition has kept many from revealing their sensitivity during routine dental visits. Unless the pain is very troublesome, patients often hesitate to “bother” the dentist or hygienist with something patients think may be perceived as a minor complaint. Guilt over the possibility of unwittingly causing the pain themselves, or anxiety about the potential seriousness of the condition and its treatment, may also be keeping them quiet.

While detection sometimes occurs during routine examination, patient reticence highlights the importance of regular screening. However, the omission of dentin hypersensitivity from dental school curriculum and the absence of an established treatment protocol leave many dental professionals reluctant to pursue a diagnosis. Underreporting by patients, combined with an identified lack of knowledge and confidence on the part of the dental profession in effectively managing this condition, is leaving many patients suffering in silence.

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Understanding the causes of dentin hypersensitivity reveals much about management and treatment.

The Canadian Advisory Board on Dentin Hypersensitivity defines dentin hypersensitivity as a short, sharp pain arising from exposed dentin in response to stimuli – typically thermal, evaporative, tactile, osmotic or chemical – which cannot be ascribed to any other form of dental defect or disease.¹ It is generally accepted that the dentin becomes exposed through either loss of enamel or gingival recession.¹

Enamel loss is most frequently caused by erosion due to dissolution by acids that are not of bacterial origin.¹ Dietary acids found in citrus fruits

and juices, wines and carbonated drinks are the most common causes. Heavy consumption of low pH soft drinks is considered a major factor of enamel erosion, and may explain why those as young as 5 or 6 have shown evidence of dentin exposure.³ Frequent vomiting due to bulimia is an example of how intrinsic acids may lead to enamel loss.

Acid initiates the softening and eroding of enamel. “Softened” enamel is susceptible to the effects of tooth brushing (with or without toothpaste), coarse diets and tooth grinding.¹ Therefore, while the forces of abrasion, attrition and abfraction can subsequently contribute to loss of enamel, erosion is the key to dentin tubule exposure.¹

Gingival recession is not well understood; however, over-zealous tooth-brushing, acute ulcerative gingivitis, self-inflicted injury and periodontal non-surgical and surgical procedures are recognized as predisposing factors.¹

Unless the factors that contribute to tooth wear or gingival recession are removed or reduced, pain is likely to return.¹ The challenge of modifying

patient behaviour underscores the need for ongoing management and treatment.

Underreporting and underdiagnosing highlight the need for diligent screening.

Dentin hypersensitivity can affect patients in a number of ways. It can compel them to avoid normal oral hygiene and eating behaviour, as well as regular dental appointments.^{2,4} The effect on patient behaviour, extensive prevalence, recurring pain, and multi-factorial aetiology all demand the attention of dental professionals.

Patients’ silence emphasizes the need for dental professionals to screen diligently, initiate conversation about sensitive teeth, and provide patient education. A thorough understanding of the mechanisms of dentin hypersensitivity further highlights the importance of timely diagnosis, proper management and ongoing treatment strategies.

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1. Consensus-Based Recommendations for the Diagnosis and Management of Dentin Hypersensitivity. Canadian Advisory Board on Dentin Hypersensitivity. *J Can Dent Assoc* 2003;69(4):221-226.
2. Haywood, VB. Dentin hypersensitivity: bleaching and restorative considerations for successful management. pp. 376-384. Proceedings of a symposium held at the FDI World Dental Congress, Vienna 2002. *International Dental Journal* 2002;52(5). 3. Addy, M. Dentin hypersensitivity: new perspectives on an old problem. pp. 367-375. Proceedings of a symposium held at the FDI World Dental Congress, Vienna 2002. *International Dental Journal* 2002;52(5). 4. Drisko, CH. Dentin hypersensitivity – dental hygiene and periodontal considerations. pp. 385-393. Proceedings of a symposium held at the FDI World Dental Congress, Vienna 2002. *International Dental Journal* 2002;52(5).